# Innovation in the Public Sector

Publin Report No. D16

## Studies of innovation in the public sector, a theoretical framework

By Rannveig Røste

**PUBLiN**

# Studies of innovation in the public sector, a literature review

By Rannveig Røste

TABEL OF CONTENT:

# 1    Introduction[1]

This paper gives an introduction into theoretical perspectives studying innovation in the public sector. Since innovation in the public sector is a relatively new research area, and there are no existing surveys of this kind of literature, the paper is to a large extent explorative in character. However, the paper will not give a completely overview of the present research of innovation in the public sector, since this issue is dealt with in another of the working papers to the PUBLIN project[2]. Rather, the paper is directed at giving an introduction into relevant theoretical traditions, and elaborates how to use these theories as a theoretical framework for describing, understanding and exploring innovation in the public sector.

The innovation literature has contributed with an essential understanding of the main processes underlying social and economic change in public sector companies and industries. PUBLIN will explore the possibility of transferring concepts from studies of innovation in the private sector to studies of innovation in the public sector.

However, modern systemic innovation theory cannot indiscriminately be transferred to another sector without taking the unique characteristics of public innovation into consideration. Besides, there exist already a large number of studies that, directly or indirectly, are covering innovation in the public sector. In studying innovation in the public sector, theories of learning, philosophical perspectives, organisational theory, studies of public policy and New Public Management are particularly interesting[3]. These theoretical traditions consist of a wide array of disciplines, including economics, political science, sociology, history, psychology, philosophy and social anthropology. This paper explores how these approaches might contribute to future studies of innovation in the public sector.

The idea is to learn from them all. However, the goal is not to develop a new grand unified theory of innovation in the public sector. This is not possible within the framework of PUBLIN, nor is it possible from a theoretical viewpoint. Some of these traditions are too dissimilar and even contradictory.

The paper starts with a presentation of the fundamental theoretical understanding of innovation in the private sector, and presents thereafter some social-constructivist and philosophical perspectives to how understanding is built and changed in society. In the following three sections the theoretical traditions of organisational theory, studies of public policy and new public management[4] are presented. We will discuss to what extent they support our systemic understanding of innovation based on studies of the private sector. The final chapter summarises how the various theoretical perspectives supplement and contradict each other.

---

[1] Eran Vigoda, René Kemp,Yngve Seierstad Stokke, Helge Godø and Per Koch have commented on parts of or the whole text. Thanks for all the important input.
[2] Marianne Broch (2005): *Mapping of Competence Report*, Working Report to the PUBLIN project.
[3] The specific theoretical perspectives are chosen by the PUBLIN team in the development of the ideas for the project, and it is regarded as important to know and understand these various perspectives as a portal to study innovation in the public sector.
[4] Theories of policy learning are not dealt with here, since another report in the PUBLIN project discusses this: René Kemp and Rifka Weehuizen (2005): *Policy learning, what does it mean and how can we study it?*, PUBLIN, Working Report to the PUBLIN project.

# 2 Innovation Theory

Innovation theory is not a formal and established theory, but an amalgam of various disciplines: economics, management, organisational psychology, cognitive theory and system theory, dealing with various aspects of innovation. So far the main focus has been on innovation in traditional industries. However, there has been some research on innovation in services, and given that much of the activities taking place in the public sector are services, these studies are of particular interest.

The idea that innovations occur within systems of innovation (e.g. Lundvall 1992; Nelson 1993; Saxenian 1994; Carlsson 1995; Edquist 1997; Malerba 2002, 2004) is essential. Other central perspectives are the organisational studies of innovation (e.g. Van de Ven 1986; Aldrich and Fiol 1994; Van de Ven et. al. 1999; den Hertog and Huizenga 2000) and the actor network approach (e.g. Latour and Woolgar 1979; Callon 1980; Latour 1987; Callon 1992, 1995).

## 2.1 Systems of innovation

According to Christopher Freeman (1995, p. 5), the national system of innovation as a concept, was first used by Bengt-Åke Lundvall (Dosi et al 1988). Christopher Freeman himself was, however, the first to use the concept in published form in his book: *Technology Policy and Economic Performance: Lessons from Japan* in 1987.

Two major books on the classic concept of the national systems of innovation were published in the early 1990s: *National Systems of Innovation: Towards a Theory of Innovation and Interactive Learning* edited by Bengt-Åke Lundvall (1992) and *National Systems of Innovation: A Comparative Study* edited by Richard Nelson (1993).

Although the concept "national systems of innovation" is important, this literature does not necessarily define systems of innovation by national borders, systems might also be defined by smaller geographic regions in the country (e.g. Saxenian 1994; Cooke 1996), or in sectoral systems embedded in specific areas of the economy (e.g. Breschi and Malerba 1997; Malerba 2002, 2004) as for example rooted in technological systems (e.g. Carlsson and Stankiewicz 1991; Carlsson 1995; Carlsson et al 2002), branches of industry or value chains.

The sectoral perspective might be understood as complementary to the national perspective (Lundvall et al 2002), without rejecting the specific national conditions (e.g. Coriat and Weinstein 2004). An important contribution to this approach is the studies of how different kinds of technology regimes shape innovation processes (Nelson and Winter 1982, Winter 1984, Malerba and Orsenigo 1993, Malerba 2004).

In general, researchers within this tradition argue that innovation takes place in a system consisting of individuals, firms and institutions and within a certain cultural and regulatory framework. Innovation is not the result of a linear process starting out in universities and government laboratories and then transferred through companies to the market. Accordingly innovations – being that new or improved products, processes or services – are not normally born as ideas in institutions of basic science. Rather, most innovation processes start within companies trying to solve certain problems. Through this learning process the company will make use of various sources of competences and knowledge in the innovation system, being those customers, suppliers, consultancies, patents, or various research institutions. Systemic innovation research is therefore company (or institution) centred.

The systemic perspective is also *holistic*. These researchers argue that the profit-maximizing model generally applied in neoclassical economy is too limited to understand the processes of innovation. To be able to understand and explain innovations all important elements shaping and influencing the dynamic of the systems must be taken into account. These are not restricted to economic elements, but also organisational, institutional, social and political factors, mechanisms and relations. The legal conditions and the norms and cultures in the institutional context represent important incentives and constraints to innovation. Through their activities, companies establish relations with other companies like suppliers and competitors, with customers and with other financial, technological and marketing partners. These relations and their institutional contexts make a complex map of the company's interaction with sources of knowledge and technology and the potential for learning and cooperation. This cumulative accumulation of knowledge and skills, i.e. the learning process, is crucial for innovation.

In Lundvall's (1992) book, the process of interactive learning in user-producer-interactions is emphasised. The dominating perspective is, however, the evolutionary perspective of Nelson and Winter (1982; Nelson 1987, 1995)[5]. Nelson and Winter claim that innovation can be understood as an evolutionary process. In an evolutionary process of technological change there are "mechanisms" that continuously select one type of technology instead of another or one form of behaviour instead of another. These mechanisms can be compared to the "natural selection" of biology found in Darwin's theory. In the case of industrial innovation the major mechanism will be competition in the market, as in traditional economic theory.

Together the selection mechanisms constitute a filtering system in several stages, where the selection of new technologies or types of behaviour leads to new set-ups, as for example new technological products or organisational models. These processes are continuously ongoing because the technologies developed can never be optimal in an absolute sense, only superior in a relative sense – the system therefore never reaches a state of equilibrium.

Moreover, the innovation processes have an historical dimension. There is a time lag between the development of new technology and competences, and in the implementation in concrete products, processes, services, organisational model etc. Learning processes take time. The elements of the system mutually facilitate and constrain one another in complex ways. Hence, what facilitate innovation in one system might restrain the development of similar technologies in another.

## *2.2   The innovation journey*

The other central aspect drawn upon in the innovation literature is the procedural aspect of how innovation develops through processes. Innovation processes are described as open, dynamic and non-linear, and are therefore hard to predict and to control. Yet there are some basic conditions and general patterns that often occur in innovation processes.

---

[5] Even though Nelson (1993) does not mention evolutionary theory, Edquist (1997, p. 7) finds it safe to assume that evolutionary theory must have been the basis, because Nelson strongly argues from an evolutionary perspective in a book two years later (Nelson 1995). Carlsson (1995), on his side, explicitly state that the "technological system perspective" is based on an evolutionary approach. In contrast, Lundvall (1992) does not refer to evolutionary theory in his introduction as editor, but evolutionary theory are discussed by others in the book as evolutionary foundations of learning by doing.

Organisational studies of innovation, as the *Innovation Journey* by the Minnesota Innovation Research Program (Van de Ven et al. 1999), have developed rich insights about how and why innovations actually emerge, develop, grow and terminate over time. Van de Ven and colleagues (Van de Ven et al.1999) find for example that innovations are often triggered by "shocks" in the market or within the firm, but that the initial innovative idea often multiplies into numerous ideas and activities that might proceed in divergent, parallel and convergent paths of development. Setbacks and mistakes occur frequently, and criteria for success and failure often change throughout the process. Innovation therefore involves uncertainty and risk for the organisation, and success depends on good communication with stakeholders to receive support and resources, and of champions that are able to see the innovation through the difficulties during the development process.

The "innovation journey" presents a "road map" of how innovation processes typically unfold. Innovation processes are understood as occurring in three phases: the initiation period, the development period and the implementation/termination period. In mapping innovation processes there are five central components on which to focus:
1. *Ideas* of new products, production processes, services etc
2. *Results* of the numerous innovation processes in the context the innovation process studied are a part of.
3. *Individuals*, who take part in the innovation process, what are they competences and at what stages of the process do they take part.
4. *Relations*, how are the relations between the individuals taking part in the innovation process, and to other companies, public institutions, risk capital etc.
5. *Context* in which the innovation takes place, viewing the importance of various elements in a similar way as the systems of innovation approaches; in a holistic perspective, systemic dynamic and cumulative technology of the innovation processes.

Some general patterns for innovation processes are found to be that (Van de Ven et al. 1999, p. 21-66):
- Innovation processes most often do not start because of one brilliant idea of a single entrepreneur. It is rather an extended gestation period where several people are involved.
- Efforts to initiate innovations are often triggered by "shocks" in the market or within the firm.
- In the development period the initial innovative idea often multiplies into numerous ideas and activities proceeding in divergent, parallel and convergent paths of development, and where setbacks and mistakes frequently occur. In addition, criteria for success and failure often change throughout the process.
- Innovation personnel participate in highly fluid ways: they tend to be involved on a part time basis and the turnover of personnel is high. Relationships are therefore frequently altered.
- Innovation entails developing relations with other organisations, competitors, trade associations and government agencies. These relations often lock innovation units into specific courses of action that may result in unintended consequences.
- Innovation processes terminate when implemented and institutionalised or when resources run out.

Hence, in studying innovation, it is important to understand how the procedural aspects shape the development process of the particular innovation studied. One way to understand how the development process shape the innovation is to map the critical incidents of the process, plot

them in a time axis, and analyse how the various incidents have resulted in shifts of success and failure throughout the development process.

## *2.3   Innovation theory as theoretical framework for PUBLIN*

The public sector is vast and complex and interacts in intricate ways. By taking on a holistic approach, all the important public organisations, actors and elements might be mapped and the relations and interaction between these studied in order to understand the potential for cumulative learning and innovative action in the public sector.

The empirical challenge is to take into account all the elements shaping and influencing the dynamic of innovation in the public sector without making the model to complex to handle and study. For example, might non-governmental organisations (NGOs), research and technology organisations (RTOs), knowledge-intensive business services (KIBS), suppliers of technical equipment for the health and social service sectors, end users etc. play an innovative role in the public systems. These actors are not the main focus in the PUBLIN project, but will be considered as far as they influence innovation processes that take place. Moreover, depending on the focus, the system of innovation might be defined in different ways as national, regional and sectorial systems.

When studying innovation in the health and social service sector in PUBLIN, the national systems of innovation perspective might be used to understand how the public sector facilitate and restrain innovation.

Public organisations, as for example public hospitals, home help services and health agencies, play different roles. Political actors, as for example the political parties and the NGOs, have quite different ideas of what is the best way to govern society. The heterogeneity of the public sector might in that way be a source of innovation in itself. At the same time, the needs and ideas of the various organisations and actors might be in conflict and constrain one another – and in that way hamper innovation. Moreover, the ideas of the various political actors are not necessarily sources of innovation in the first place, but might rather be based on  "old" political objectives that never has never been satisfactory dealt with before, and which is brought up again.

In its case studies PUBLIN is focusing on innovation in social services and the health sector. On the one hand it might be fruitful to understand the health and social service sector as one system within the public sector. These services are tightly interconnected, as illustrated by the use of health services in the care for the elderly. At the same time, it is important to understand that the health sector and social sector may function as two separate systems – at least in some countries. This may apply to the struggle for power and funding, but also as regards professional conflicts.  For instance: who is to be responsible for taking care of newly operated patient, the hospitals (generally a part of the health sector) or the home help system (generally a part of the social service system).

Furthermore, it might be useful to analyse the one or two systems of the health and social service systems as consisting of several subsystems of innovation, as for example geographic units and systems based on particular technologies or competences (as for example brain surgery, knowledge of diabetes or dementia). These systems of innovation might be understood to occur alongside, be dependent on each other and interact in a dynamic way, and might both be understood to stimulate each other and to be technological and institutional obstacles to innovation in the public sector.

PUBLIN is to study innovation in the health and social service sector at the both the policy level and the service level. Analytically, it might be an advantage to distinguish these two levels into at least two systems of innovations, of the organisations, actors and elements involved in innovation processes at the service level on the one hand and of people and institutions involved in overall policy developments at the national and regional levels (including ministries, agencies and county authorities).

The main focus of most studies of public innovation has been the service level, like for instance in hospitals, homes for the elderly, public institutions for children and youth etc. However, innovation at the policy level is also important, and for several reasons. Policy institutions may influence innovation taking place in the service level through laws, regulation and funding, and by initiating or encouraging such innovation. However, equally important is the fact that there is innovation at and for the policy level as well. Hence ministries may develop new ways of internal learning, the government apparatus may be reorganised, politicians may implement new ways of developing policies, and policy makers at the ministerial level may influence the thinking of politicians. This kind of innovation at the policy level will also ultimately influence service level organisations, as the policy level institutions and civil servants determine much of the framework conditions for service level innovation.

Actually, it is important to analyse the policy learning of all the various systems. One may for instance discuss how new technology and knowledge is incorporated in new policy decisions, and study how learning processes happen between political actors, the public sector, public services, private companies and the customers of public services in and between various systems.

PUBLIN will study innovation through in-depth case studies in the health sector and in the social service sector in eight countries. Through these case studies PUBLIN will map various sources and barriers of innovation in different public organisations, taking into consideration the influence of cultural traits, politics, management, entrepreneurship, networks and cooperation etc. It should be noted that the main focus of the case studies will be on the innovation itself or the innovation processes in the organisations. Hence, all sources of innovation and behavioural change will be analysed from the perspective of the selected organisations, while keeping in mind that these organisations take part in larger social systems, as for example the role of KIBS and RTOs is important.

PUBLIN will also look at national differences and similarities between for example the post-communistic countries and other countries. There are various types of innovation, different sectors and different historical, political and social contexts in these countries. To reveal similarities and differences PUBLIN should therefore try to identify the *innovation journeys* of the cases.

Given that PUBLIN is studying innovation in the public sector, while organisational studies of innovation like the Minnesota Innovation Research Program traditionally studied private companies, it will be interesting to find whether their "road map" fits the innovation processes studied in the PUBLIN-project. And if they differ, PUBLIN might contribute with an initial stage of the development of a new "road map" for innovation journeys in the public sector.

# 3 Social-constructivist and philosophical perspectives

A third perspective bringing understanding to how innovation processes happens, is the actor network approach. However, the understanding of innovation in the actor network approach is fundamentally different from the innovation perspectives presented here, and in studying innovation in the public sector its contribution has more in common with philosophical perspectives on how belief systems come into being.

## 3.1 Actor Network approach and belief systems

The actor network approach (e.g. Latour and Woolgar 1979; Callon 1980; Latour 1987; Callon 1992, 1995) is a reaction to the tendency in social science to treat technology as an external factor, as something not included in the conditions studied by social scientists.

The actor network approach claims that the connection between technology and society is like a "seamless web", where it is impossible to point out some factors as essentially technological and others as essentially social. The society is made up of innumerable "seamless webs", or actor networks, consisting of constructions of individuals, institutions and technology. Thus, the actor network approach neutralizes the division between micro and macro analysis.

According to the actor network approach, innovation is to be studied through the identification and understanding of *actor networks*: how these networks come into being, how they evolve and how they persist.

Above all, in understanding innovation, it is important to study the tactical operations actors do to make other actors interested in participating or financially supporting a particular innovation process. An actor or a group of actors try to convince others that their *scenario* is the one that should be adopted by all.

By scenario is meant a particular image of what the future should look like, and what must be done to reach this state of affairs. Hence, an actor network is therefore often defined by a particular belief system or rationality; a historically conditioned common understanding of how reality is constructed. It is this common understanding that unites the actor network.

New actors are enrolled through diverse tactical operations. A simple operation will be for network builders to try to convince others that they have common interests. A somewhat more advanced operation is when network builders try to convince new actors that they are out of reach of their own target and that the scenario of the network builders is a good alternative. And a third one is to convince others that the scenario presented by the network builders is a shortcut to the target of these other actors.

When new actors are enrolled, the challenge is to make their conviction persist. It is only possible to accomplish the scenario when the actor network is relatively stable, because further plans with defined tasks and roles must be concretized.

There are other traditions that also throw light upon the role of belief systems or rationalities.

Hermeneutical philosophy operates with the idea of 'life worlds'. A life world is the sum of the individual's personal experiences, his or her educational background and cultural environment. The life world changes in meetings with other persons and new experiences,

which again alters the person's perception of reality (the hermeneutical circle, cf. Ricour 1974; Heidegger; 1977; Gadamer 1989).

According to this tradition learning is not about adding "facts" to some kind of internal "knowledge bank". It is a complex process where learning both expands a person's internal repository of information and changes his or her understanding of nature. Radical life world changes may allow an individual absorb knowledge that was previously out of reach, as he or she didn't have the life experience and concepts needed to absorb this knowledge.

This explains why belief systems – or "rationalities" – have such a large effect on learning and innovation.

By belief systems are meant relatively long lasting understandings of reality shared by the members of a culturally and socially defined group. This squares 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.

A related term is "mental models", i.e. individual belief systems, which are more or less shared with others (North 1990; 1996). At the organizational level, shared mental models are labeled as organizational norms and routines (corporate culture). At the level of large groups they are labeled as idea-systems, norms, ideologies, attitudes. Shared mental models imply common language and facilitate communication. Earlier patterns of decisions affect later patterns; learning is path-dependent (Sinclair-Desgagne and Soubeyran 2000).

## 3.2 Social constructivist and philosophical perspectives as theoretical framework for PUBLIN

In other words, the actor network approach and the various perspectives of belief systems contributes with an understanding of how the rationality in the society develops and changes over time and place, and how the numerous belief systems might come into being, coexist and change through interaction.

The approaches give innovation researchers tools for understanding the social and mental context of innovation processes. The actor network scenarios and belief systems may make innovation possible by delivering concepts and social rules that allows and encourages new thinking. Moreover, the actor network may make it easier to gather the resources needed for a focused approach to problem solving within this given belief system. On the other hand, the urge to proselyte and get more "followers" may also restrain innovation, as some approaches will be considered to be detrimental to the achievement of the scenario, and even illegitimate or morally wrong.

Furthermore, the actor network approach neutralizes the division between micro and macro analysis. For PUBLIN this could be relevant in understanding how micro and macro processes are dependent on each other. For example, in studying how attention is called to new technical products, services and organisational practices, and the learning processes between the decision-making level and the service level.

The PUBLIN project is studying how tactical operations are used to bring new actors into the actor network in the public sector at the policy and service level. In general, public policy is about convincing other people that the scenario presented is the best for the future. Studying how actors are enrolled into and unrolled out of public scenarios regarding public sector

innovation may therefore contribute to an understanding of the tactics of public "entrepreneurs" and of how rationalities are constructed.

New rationalities or belief systems are not only constructed through learning and understanding of new facts. It is also about learning to think differently and outside the box. Given that we live in a society with rapid technological and cultural change, people and institutions must be prepared for unpredictable, to adapt to new and unforeseen challenges. Any knowledge policy must take into consideration the need to change or expand existing belief system, or at least encourage communication and learning between different organisations and social groups.

# 4    Organisational theory

In the same way as innovation theory, organisational theory is also a multidisciplinary area, with contributions from e.g. sociology, political science, psychology, social anthropology, economics and management theory.

In sociology and political science, the large number of organisational theoretical perspectives may be classified within one out of four larger theoretical traditions: the rational system perspective, the natural system perspective, the open system perspective and new institutionalism (Scott 1992). These perspectives partially conflict, overlap and complement one another. The four perspectives are to some extent a product of the changed understanding of organisations over time, as one school has replaced another. However, they are not only of historical interests, but can be used as analytical models intended to guide and interpret empirical research. Here, we will present the characteristics of the four perspectives, the first three ones rather shortly and the last more thoroughly, before we discuss how the perspectives might be applied in studying innovation in the public sector.

## *4.1   Rational System Perspective*

In the rational system perspective organisations are seen as instruments designed to attain specific goals. Organisations are rational – meaning "purposeful" – in the sense that the activities and interactions of participants are coordinated through the organisational structure in order to achieve the specified goals.

Specified goals are seen as providing unambiguous criteria for selecting among alternative activities. Behaviour is precisely and explicitly formulated in the formal organisational structure, and prescribed independently of the personal attributes of the individuals occupying positions in the structure.

Some central approaches using the rational system perspective are:
- Frederick W. Taylor's "scientific management" (1911)
- Henri Fayol's (1949) administrative principles
- Luther Gulick and L. Urwick's (1937) principles for coordination and specialization
- Max Weber's theory of bureaucracy (1946, 1947, 1968)
- Herbert Simon's "administrative man" (1945)

## 4.2  Natural System Perspective

The natural system perspective was developed as a critical answer to what was perceived as inadequacies of the rational system perspective. Goals and the formal organisational structure are not considered the most important characteristics of such systems.

According to the natural system perspective organisations consist first and foremost of social groups attempting to adapt and survive in their particular circumstances. Whereas the rational system model stresses the normative structure of organisations, the natural system model focuses on the behavioural structure of organisations.

These researchers ague that frequently there will be a disparity between the stated and the "real" goals pursued by organisations, i.e. a disparity between the professed or official goals and the actual or operative goals. Highly formalised structures within organisations are not denied, but their importance is questioned. Participants enter the organisation with individually shaped ideas, expectations and agendas, different values, interests and abilities.

In this tradition it is argued that highly centralized and formalised structures are doomed to be inefficient and irrational because they waste the most precious resource of the organisation: the intelligence and initiative of its participants.

Some central approaches of the natural system perspective are:
- Robert Michel's "iron law of oligarchy" (1949)
- Elton Mayo's "Hawthorne effect" (1945)
- Talcott Parson's social system AGIL (1951, 1960)
- Philip Selnick's (1948, 1949, 1957) institutional approach
- Michel Crozier's (1964) "dysfunctional" aspects of rational behaviour

## 4.3  Open System Perspective

The previous two perspectives tend to view the organisation as a closed system, separated from its environment and with easily defined groups of participants. In the open system perspective organisations are regarded as systems of interdependent activities linking shifting coalitions of participants together as loosely coupled systems. Organisations are at the same time embedded in larger systems and are parts of various subsystems. The subsystems and the larger systems are interlinked and interact. Hence, organisational behaviour is hard to predict.

Selected schools of the open system perspective are for example:
- Organisations as loosely coupled systems (e.g. Cyert and March 1963; March and Olsen 1976; Pfeffer and Salancik 1978)
- David Easton's political system (1953)
- Jay Galbraith's contingency theory (1973)
- Charles Lindblom's (1959) incremental budgeting-model
- Karl Weick's (1969, 1976) cognitive model
- System design theory (e.g. Ashby 1956; Burns and Stalker 1961; Mintzberg 1979, 1983; Perrow 1984).

## 4.4  New institutionalism

The researchers following the new institutionalism perspective is united by a common scepticism towards atomistic accounts of social processes, and a common conviction that institutional arrangements and social processes matter.

The development is to some extent a reaction against the behavioural revolution, and has its theoretical roots in the political economy associated with Thorstein Veblen (e.g. 1899, 1914, 1961) and John R. Commons (e.g. 1916, 1924, 1965), as well as in the functionalist thinking of Talcott Parsons (e.g. 1951, 1960) and Philip Selznick (e.g. 1948, 1949, 1957). New institutionalists share a scepticism towards rational-actor models of organisation and emphasise the role of the culture and the relationship between the organisation and its context in the shaping of the organisation.

Two papers from 1977 are seen as essential: "The Effects of Education as an Institution" (Meyer 1977) and "Institutionalized Organisations: Formal Structure as Myth and Ceremony" (Meyer and Rowan 1977). W. Richard Scott (1983) and Lynne Zucker (1987).

However, new institutionalism is not a return to scholarly roots, but "an attempt to provide fresh answers to old questions about how social choices are shaped, mediated and channelled by institutional arrangements" (Powell and DiMaggion 1991, p.2).

New institutionalism appears in different ways. Powell and DiMaggion (1991) point to three central variables that separate the new institutional economics (e.g. Williamson 1975, 1984) and public choice traditions (e.g. Buchanan and Tullock 1962; Niskanen 1971, 1973) from the new institutional perspective of organisations (e.g. March and Olsen 1976, 1989, 1995; Zucker 1983, 1987):

1. New institutional economics and public choice theory define institutions as a product of human design, as the outcomes of purposive actions by instrumentally oriented individuals. In the organisational approaches, institutions are results of human activity – but not necessarily products of conscious design. The rational-actor models are rejected, emphasising that the units of analysis cannot be reduced to aggregations or direct consequences of individual attributes or motives. Rather institutionalisation is understood as "phenomenological process by which certain social relationships and actions come to be taken for granted" and a state of affairs in which shared cognitions define "what has meaning and what actions are possible" (Zucker 1983, p. 2), stressing cognitive and cultural explanations.

2. Institutional economists and public-choice theory assume that actors construct institutions that achieve the outcomes they desire, they rarely ask where preferences come from. Institutional arrangements are viewed as adaptive solutions to problems of opportunism and imperfect or asymmetric information. The organisational tradition of March and Olsen reject this understanding:

   a) First, because individuals do not choose freely among institutions. The preferred models are not that of choice but of taken for granted expectations, assuming that "actors associate certain actions with certain situations by rules of appropriateness" (March and Olsen 1984, p. 741). Expectations are established through socialisation, education, on-the-job learning or acquiescence to convention.

   b) Second, people in different institutions have different preferences, and individual choice can therefore not be understood without reference to the cultural and historical framework in which they are embedded.

3. The approaches also differ in their view of the autonomy, changeability and efficiency of institutions. In new institutional economic and public choice theory, institutions are viewed as provisional, temporary resting places on the way to an efficient equilibrium solution[6]. In organisational theory, behaviours and structures change slowly because they are institutionalised. The existing institution has established criteria by which people behave, and therefore they do not discover alternative preferences. When organisational change occurs it is likely to be at the macro level, in an episodic and dramatic way rather than incrementally and smooth.

The new institutional perspective of March and Olsen (e.g. 1976; 1989; 1995) view irrationality as embedded in the structure itself and not as a result of informal action outside the defined and formalized structure of the organisation. Organisational behaviour takes place within an institutional context, and the institutional context shapes the behaviour in the organisation. The institution represents an institutionalised understanding – that is the "common understandings that are seldom explicitly articulated" (Zucker 1983, p.5). Participants are not seen as shaped by norms through "socialization" and "internalization", as in the old institutionalism. "Institutionalism is fundamentally a cognitive process" (Zucker 1983, p. 25), where taken for granted scripts, rules and classifications are the stuff of which institutions are made (Abelson 1976; Cantor and Mischel 1977; Bower, Black and Turner 1979; Taylor and Crocker 1980; Kiesler and Sproul 1982).

Cognitive psychology was partly introduced in organisational theory with the Carnegie school and Weber's theory of bureaucracy. However, it was first with Herbert Simon, James March and Richard Cyert (Simon 1945; March and Simon 1958; Cyert and March 1963) that cognitive science per se was introduced to organisational theory. March continued to work with colleagues on the garbage can model (Cohen and March 1974; March and Olsen 1976; March and Weissinger-Baylon 1986). The garbage can model emphasises "decision as an outcome or an interpretation of several relatively independent streams within an organisation" (March and Olsen 1976, p. 26).

Learning theory emphasises for example how individuals in institutions organise information in social categories (Rosch et al. 1976; Rosch 1978; Fiske 1982; Kulik 1989). According to March and Olsen institutions learn from their experiences through accumulating historical experiences (March and Olsen 1975; Levinthal and March 1982; Olsen 1992; Brunsson and Olsen 1993; Olsen 1996; March 1999). Results and inferences of past experiences are stored in standard operating procedures, professional rules and rules of thumb. Institutions learn along several dimensions, for instance related to modification of strategy, competence and aspiration, and in the interaction of these dimensions.

Furthermore, the approach of Organisational Politics focuses on cognitive processes in organisations. Organisational politics study how the organisational members use power in efforts to influence others and secure interests, or alternatively to avoid negative outcomes within the organisation (Bozeman et al. 1996). Studies of organisational politics have developed an understanding of organisational politics simply as aggregated influence tactics by employees in organisations (e.g. Kipnis et al. 1980). It has also developed cognitive analysis like the perceptual measure "the Perceptions of Organisational Politics Scale (POPS)" developed by Ferris, Russ and Fandt (1989). These studies found that the level of organisational politics, and especially as measured in POPS, indicates the level of fairness and

---

[6] One important exception is Richard Nelson and Sidney Winter (1982) emphasizing the evolutionary processes of change, see section 2.1.

justice in the organisation. The level of fairness and justice has substantial consequences for the organisational climate and on the organisational outcomes (e.g. Kacmar and Ferris 1991; Ferris and Kacmar 1992; Folger et al. 1992; Vigoda 2000A, 2000B).

The perspective of new institutionalism developed an array of insights that students of organisations now regard fundamental. The fundamental elements are for instance (i.e. March and Olsen 1989, 1995):
- Every organisation is ambiguous, but organisational norms and routines for appropriateness evolve gradually and reduce ambiguity.
- However, the routines do not necessarily result in effectiveness.
- The choices of political actors are results of decision-making processes made by ambiguous organisations and actors with inconsistent preferences.
- Often there are short time limits for each decision to be made.
- In order to make decisions, it is therefore central to draw the attention of the decision makers. However, whether attention is obtained depends upon the character of the decision making process, on what happen in other relevant processes and the embedded understanding of the concerning organisations.

## 4.5    Organisational theory as theoretical framework for PUBLIN

Organisational theory represents various and diverging perspectives on how organisations act and change. Many of them are of importance to the PUBLIN project. The insights gained by the various perspectives may conflict, but they might also supplement each other. They remind us of all the features that must be understood when studying innovation in organisations. Important elements to include are:
- Goals and formalization as emphasised in the rational system perspective
- Social groups and adaptation, as emphasised in the natural system perspective
- The role of subsystems, as emphasised in the open system perspective

In PUBLIN we will be aware of all these features.

The new institutional perspective of March and Olsen (e.g. March and Olsen 1976, 1989, 1995; Zucker 1983, 1987) is especially interesting because it holds several of the important features of the three other organisational perspectives. Moreover, the perspective has a dominant role in the research of public institutions, and might therefore be regarded as an influential perspective that might contribute with fundamental understanding in studying innovation in the public sector, especially since the perspective especially focus on institutional dynamic (e.g. Olsen 1992).

New institutionalism holds that institutionalised behaviour and structure change slowly, and that this implies that the organisation's way of doing things might be understood as a barrier to innovation. However, organisations are not static. They are transformed through continual processes of interpretation and adaptation, in such a way that future actions become more consistent with what might have been more sensible in the past. Moreover, new institutionalism claims that radical transformation occurs as a result of comprehensive external shocks, performance crisis or large gaps between existing structures and underlying realities. In contrast to the rational system perspective, the doctrine of new institutionalism is that what occurs in the organisation is highly contextual. Hence, the belief systems of the institution and the individuals in the institutions must be taken into considerations in order to understand the organisational behaviour. The PUBLIN project must therefore strive to understand the historical and cultural framework in which the organisation is embedded.

New institutionalism might be understood as sustaining and extending the understandings from innovation theory. Organisations – or institutions – are understood to develop through evolutionary and interactive learning processes. This coincides with the systems of innovation approach (e.g. Lundvall 1992; Nelson 1993; Saxenian 1994; Carlsson 1995; Edquist 1997; Malerba 2002, 2004) and the organisational study of innovations in the innovation journey perspective (Van de Ven et al. 1999). However, following the organisational perspective of March and Olsen (e.g. March and Olsen 1976, 1989, 1995; Zucker 1983, 1987), the organisation do not necessarily facilitate public innovation. The institutionalised understanding is not necessarily products of conscious decisions, but of the rules of appropriateness embedded in the organisation, and the institutionalised understanding might rather tend to stabilise than change the organisation.

More exactly, the success of the innovation and the tendency to stimulate innovation in the system will depend on how the innovation system is defined. Following the discussion of how to define the innovation system in PUBLIN in section 2.4, the success of the innovation is entirely dependent on the institutional and organisational elements of which the innovation process is happening. Hence, in the embedded culture for change and innovation in the organisation studied.

For example, in studying innovation in decision-making processes on political reforms, the new reform will more likely succeed if it is based on the institutionalised culture of the organisation that is to be reformed. The policy makers should know how the day-to-day services are functioning and why these function in that way before they make any decisions about how they want the services to function. Hence, it should be some kind of policy learning of how the existing day-to-day operations at the service level are.

At the same time, there may be barriers to innovation in the institutionalised way of doing things. Learning processes might be slowed down due to "the taken-for-granted way of doing things". Institutions learn from experiences, whereas new ways of doing things are not necessarily part of such experiences. In that case innovations must come from outside: from the policy level to the service level *or* from the service level to the policy level, from the NGOs, RTOs, private companies, from end users etc.

The success might be seen to vary according to the actor network approach (e.g. Latour and Woolgar 1979; Callon 1980; Latour 1987; Callon 1992, 1995), viewing innovation processes that manage to enrol actors and establish relatively stable networks have a better chance to succeed. Furthermore, the success of establishing actor networks might vary throughout the innovation process according to the shifts of success of failure in the innovation journey (Van de Ven et al. 1999), and how the institutional culture of the organisational facilitate and restrain the success and failure to change.

# 5    Studies of public policy

The role of the public sector, the tasks and boundaries are defined in the public policy. In studying innovation in the public sector we must therefore have a basic understanding of how the public policy is decided and implemented to understand how innovation is facilitated and restrained.

There is a wide variety of theoretical approaches studying public policy, with rival vocabularies and terminologies. In general policy analysis is united by targeting what governments intend to do, what they actually do, why they do it and what differences it makes (Kjellberg and Reitan 1995; Theodoulou and Cahn 1995; Dye 2002). Studies of public policy are among other things directed at understanding the electoral and democratic institutions, the decision-making processes and the power of non-governmental organisations and private companies and the role of the bureaucrats in the implementation of public policy. In other words policy analysis is preoccupied with the superior question in political science: "Who gets what, when and why?" (Laswell 1936).

The objective of these kinds of studies is that analysis of existing policy is to reveal how future political problems may be handled in a more efficient way (Wildavsky 1980). Policy analysis is therefore often biased, and it is therefore advantageous to use several different theoretical perspectives in the study of existing policy and political processes.

In studying innovation in the public sector, we find it useful to at least have a fundamental theoretical understanding of democracy and power, decision-making processes in the public sector and of how public policy is implemented, and presents here some central theoretical perspectives on these three issues[7].

## 5.1    *Perspectives of democracy and power*

The democracy has been studied from several theoretical angles. The traditional philosophical question was whether public opinion *should be* an important part of public policy. In modern studies the question is more empirical. *Does* public opinion constitute an important influence in decision-making processes (Dye 2002)? The studies of democracy are analyses of power. In studying innovation in the public sector, it is important to understand how democracy open up for the involvement of various actors and their roles in decision-making processes and how incentives are facilitated and restrain of political power.

As stated by Max Weber (1946, 1994) and Robert Dahl (1961) power is a relational phenomenon. One person has power over another when an individual manage to make another individual do something he or she would otherwise not have done. Power is when behaviour is forced upon one individual by another. Moreover, power might be defined as the possibility to make "non-decisions". When issues are restrained from the political agenda power is exercised: "all forms of political organisations have a bias in favour of the exploitation of some kinds of conflict and the suppression of others, because organisation is the mobilisation of bias. Some issues are organised into politics while others are organised out" (Schattschneider 1960). Power might also be understood as a structural phenomenon, as the power set in the structural relationships in the society, as for example between different countries and multinational companies (e.g. Strange 1988), and as an ideological phenomenon in the power to convince others by the strength of the argument or in the controlling ideology in the society (e.g. Lukes 1974).

These various perspectives of power show the multiplex system of how power shapes the democratic processes. In these processes several actors are central, as for example political parties, the voters, grassroots movements, lobbyists, mass media, private companies, research institutions etc. In PUBLIN we are interested in the interaction and dynamic of all these actors

---

[7] The organisational perspectives presented are central in studying public policy. These theories are however presented in the chapter on organisation theory, and will only be mentioned briefly here.

as a system of innovation in the public sector[8]. We will here focus on some fundamental democratic models on power relations between interest groups and the governmental institutions in decision-making processes.

In the *pluralistic democracy model*[9] interest groups compete for members and influence in an open, self-regulated market. Every interest group has the same possibility to be heard in the decision-making processes, because power is distributed equally among the participants. If one interest group increases in power, other interest groups will mobilise in order to remain in position.

However, critics of pluralism claim that power is not equally distributed, but cumulatively imbalanced (Schnattschneider 1960; Bachrach and Baratz 1963). Marxist perspectives hold for example that the interests of some individuals are heard on the sacrifice on all others. The pluralistic model has also been challenged by the growth and specialisation of new policy areas. It was especially the *corporative model* that was put up as an alternative, having its renaissance in the 1970s as an alternative model for the ideal relationship between the interest groups and the state

Initially corporatism was a system of functional representation, with policy agencies composed of representatives from organisations, unions, occupational groups and industry. The corporative model is associated with the Fascist government of Italy in the interwar years, but the 1970s corporatism developed as a reaction to this authoritarian type (Truman 1971; Schmitter 1979; Schmitter and Lehmbruch 1979; Streeck and Schmitter 1985).

In contrast to the pluralistic model, the corporative model holds that the interest group have a controlling function and not only representative role. Interest organisations do not only try to influence decisions, but perform also a quasi governmental role through the control of their own members. Corporatism introduces a principle of mutual dependence between the government, the interest groups and the private industry, where the boundaries are floating.

When studying innovation in the public sector, the pluralistic and corporative models are important to know and keep in mind in order to understand the public policy. The models are more ideal types than absolutes, and the innovation process might be understood to be facilitated and restrained in societies with aspects of both the pluralistic and corporative model.

However, the models are very abstract and macro-oriented. Several perspectives have a more micro approach to the influence of interest groups. A number of perspectives hold that political subsystems develop between interest groups, politicians and bureaucrats:

- Perspectives on *iron triangles* (e.g. Rokkan 1987) claim that where the participants in the decision-making process have similar interests and the decision-maker forums are closed, iron triangles develop. The actors outside of these triangles seldom have the possibility to act any influence on these issues.

---

[8] For more detailed understanding see section 3.1 in Røste (2005): *On the difference between public and private innovation*, Working paper to the PUBLIN project.
[9] Pluralism has been the dominant model in western democracies, and developed as a reaction to the expansion of the sovereign national state and the industrialization of the society. These changes were considered a threat to the rights of the individual. One solution was to group along with other individuals that had the same interests and objectives as your self (Dahl 1956, 1961, 1967; Kariel 1984; Kelso 1984).

- Theories on *policy communities* (e.g. Jordan and Richardson 1982; Jordan 1990) focus on the mechanisms that create and sustain patterns of cooperation. Governmental policy are understood to be relatively complex and fragmented in specific defined sectors with divergent tasks and decision-making processes. All political decisions are made within a context of relatively stable patterns of participants, relations and interaction, sustained by rules of appropriateness and the mutual expectation of the particular policy area without any contact with the other specific sectors in the decision-making processes.

- Perspectives on *segmentation* (e.g. Egeberg m.fl. 1978) describe the policy system as being made up of specialised policy communities, where every segment is defined by what the participants in the limited area find to be the central issues and problems of the area. The tasks seem to be defined by the existing understanding, values and the expertise of the participants, and the rules of the game and the routines for problem and conflict solution.

Gradually these subsystem models became the dominant way in understanding the political system. Critics however claimed that these models had become too rigid and were characterized by exaggerated ideas of how stable and closed the subsystems were. Heclo (1978) for example claimed that in looking for closed triangles one tends to miss the fairly open networks of people that increasingly have power in decision-making processes.

*Issue networks* are almost a reverse image of policy communities, segmentation and iron triangles. Issue networks comprise a large number of participants with quite variable degrees of mutual commitment or dependence on others in their environment. Participants move in and out constantly, and no single group is in control of the policies and issues.

The organisational theoretical *garbage can model* (March and Olsen 1976) introduced a similar perspective on the floating participation in the decision-making processes. Rather than relatively rigid subsystems, the garbage can model finds that decisions-making situations are ambiguous and depends on which people, solutions, problems and choice-opportunities that are involved in the concrete decision-making process. If for example similar decision-making processes take place at the same time, not all that are affected have the time and possibility to be actively involved in all, but might choice to participate in the one they regard as most important for themselves. Consequently, their problems, solutions and choice opportunities only shape one of the decision-making processes. In contrast to the institutionalised patterns in the subsystems presented above it is in general impossible to predict the views and values that will dominate the decision.

## 5.2 Decision-making processes in the public sector

Policymakers are regarded as rational decision makers in the *Rational Choice* perspective (e.g. Elster 1983, 1989). The policymakers always choose the policy alternative that results in the highest possible gain to the lowest possible cost for society as a whole. Policymakers are "rational men", knowing all policy alternatives available, all opportunities' costs, all consequences of all alternatives, calculate the ratio of benefits to costs for each alternative and select the most efficient choice opportunity.

 "However, there are many barriers to rational decision making. In fact, there are so many barriers to rational decision making that it rarely takes place at all in government. Yet the

model remains important for analytical purposes because it helps to identify barriers to rationality. It assists in posing the question: Why is policymaking not a more rational process?" (Dye 2002, p. 17).

New institutional economics as for example *transaction cost theories* (Williamson 1975, 1984) and *public choice theory* (Buchanan and Tullock 1962; Niskanen 1971, 1973) try to answer how to cope with the barriers to rationality, "focusing on how institutional rules alter the behaviour of intended rational individuals motivated by material self-interest" (Sabatier 1999, p.8).

Public choice theory studies public policy through economic principles. In their seminal work Buchanan and Tullock (1962) hold that one can understand the behaviour of public servants in much the same way as actors in the private market: as utility maximising individuals. All seek to maximize their personal benefits independent of whether their role are as member of the government, employed in the central bureaucracy, voters, taxpayers etc. (Musgrave and Musgrave 1973; Tullock 1976).

Founded on a special form of rationality, William Niskanen (1971, 1973, 1991) has developed a model of the bureaucrats as "budget- maximizerz". Niskanen holds that bureaucrats behave no different than other people. They are not motivated by the common good, but seek to maximize their own self-interests also in their role as civil servants. At any time they try to increase the part of the budget of which they are responsible. If they succeed in increasing the budget they obtain several utilities as for example increased economic activity for the public organisation they are a part of that at next step results in higher prestige, status and personal power and then again in better promotional prospects within the public organisation.

Bureaucrats or civil servants might easily gain power over politicians because of their positions in the bureaucracy. In contrast to the politicians the civil servants in most European countries hold the same position for years, and are not replaced when a new government is formed.[10] Moreover, they are educational qualified and are positioned within a relatively specialised area. Thus, civil servants have competences that give them a considerable advantage over politicians when arguing budget increases.

Niskanen's theory has been much discussed. Egeberg (1995) finds, for example, that given that the purpose is to develop a "general theory of the behaviour of bureaus" as stated in Niskanen newer contribution (1991, p. 24), the focus on budgeting is completely without theoretical justification. Egeberg holds that the "bureau-shaping model" developed by Dunleavy (1991) appear to be a more interesting alternative model to the role of bureaucrats in public policy.

Dunleavy assumes that civil servants – at least senior officials – have private (individual or group) interests that shape the decision-making processes. For instance, they tend to prefer to concentrate on policymaking tasks, and delegate routine and technical matters to subordinated executive agencies. Thus, bureaucrats will put forward and support solutions that keep them "in the political and geographical centre of a nation" (Egeberg 1995:160).

However, in both the model of Niskanen and Dunleavy, the interest of the bureaucrats is more a constant than a variable. More likely, in reality their interest will vary substantially. Their

---

[10] This is not the case in all countries. In the US civil servants at the local level may be elected, while leading bureaucrats at the ministerial level are appointed by the new president.

potential private interests are not understandable without knowing their organisational and professional affiliations, depending on several factors as for instance formal organisation, institutional norms, culture and the personnel available at any time (Lærgreid and Olsen 1978; Granovetter 1985; March and Olsen 1989; Peters 1989).

*Incrementalism* is another central classic perspective on decision-making processes. Lindblom (1959, 1968; Braybrooke and Lindblom 1963) criticizes the rational model of public policy, and claims that constraints of time, information and costs prevent policy makers from knowing and choosing the best means to reach the ultimate objective. Policy making is "the science of muddling through". The policy makers only consider the issues, alternatives and consequences of immediate impact for them, and these choices are highly coloured by the existing situation.

Hence, the previous governmental activities have a fundamental impact on the decision-making processes in the future, and the changes of policy are marginal. Instead the search begins with what is familiar, i.e. existing politics, and ends with a satisfactory alternative. Policy makers also accept previous policies because of the uncertainty associated with calculating consequences. It is therefore safer to stick to existing programs were the consequences are known, whether or not the gained experience was an effective policy (Cowart, Hansen and Brofoss 1975; Gregory 1989), as for example in budgetary processes (Wildavsky 1964; Pressman and Wildavsky 1973; Wildavsky 1973).

Existing programs may also preclude radical change because of heavy investments in existing programs, financial investment as well as psychological orientation and administrative practice in the organisation at the moment. Agreements are more easily made when the dispute is a modification of an existing program or an increase or decrease in existing budgets (Van Meter and Van Horn 1975). In this way, incrementalism reduces conflicts, maintains stability and preserves the political system.

## 5.3 Implementation – top-down or bottom-up?

Studies of implementation of public policy are about what happen after the decisions are made in the carrying out of the political decision. However, it is not clearly defined when the decision-making process ends and the implementation of the policy starts. The term implementation involves both "to carry through" and "to realize". Moreover, "carrying through" a decision does not always result in a "realization of" the objective target (Lane 1992). The ambigous understanding of the concept of implementation is reflected in the two dominating theoretical traditions of implementation in public policy, namely in the top-down and bottom-up perspectives[11].

The *top-down perspective* claims that the implementation process needs a clear start and a clear end to study and evaluate the implementation (e.g. Pressman and Wildavsky 1973; Van Meter and Van Horne 1975). The implementation process is understood to start after the policy decision is made. The decision-making process are clearly defined by the discussion and framing of political objectives by the members of the central formal democratic institutions of the Parliament and the Government. Hence, decisions are made at the top of the

---

[11] These labels were introduced by the members of the bottom-up perspective as a critic of the top-down perspective.

public policy pyramid and implemented downwards in the hierarchy, in the bureaucracy and public agencies, public service institutions and at regional and local level.

In contrast, those who follow the *bottom-up perspective* (e.g. Elmore 1980; Barrett and Hill 1984; Offerdal 1984, 1992) insist that the demarcation line between policy decisions and implementation is unclear, and that studies of implementation have no value unless the whole process is included. Implementation is a continuous process without a beginning or an end, rather policy decisions and implementation happen at all levels in the public system to all time involving both policymakers and political actors at all geographic levels, bureaucrats in a number of specialised fields and service providers in different public institutions. This understanding of implementation has a clear normative point of view, emphasizing the need of decentralizing the decision making process; to include the perspectives of the service level and of the users of public services in order to make "good" decisions.

Besides, these two different perspectives on implementation processes have partly come into being because of the different normative orientation on how decision-making processes should be carried out. In spite of this, the types of decisions studied seem also to have impact on the focus in the implementation study. The tendency is that if the study is of a reasonable precise policy decision – of a concrete decision – the focus is usually on the implementation process in it self, and clearly separated from the decision-making process. If, on the other hand, the study is focusing on complex political decisions it is harder to sort out the implementation as a process separated from the decision making processes – and tend rather to focus on the implantation process as a whole (Kjellberg and Reitan 1995).

## 5.4    *Studies of public policy as theoretical framework in PUBLIN*

The studies of public policy presented here represent quite different perspectives on who participates and who has power in the political decision-making processes, how political decisions are made and how policy is implemented. These studies – and other approaches to public policy – are important to know in studying innovation in the public sector.

In studying innovation in the public sector at the policy level it is essential to understand how policy is decided; who participates in the decision-making processes, who initiates radical change, who's will is exercised on the sacrifice of other's political will etc. Furthermore, in studying innovation in the public sector at the service level it is necessary to understand how the political processes define the role of and the frame for the public services. Hence, how the public policy is the framework for the public service activities, and how the service institutions are free to initiate change and/or adjust political decisions to local demands in the implementation of public policy.

In PUBLIN we will map who is involved in the innovation process and the character of each role; whether the decision pattern is pluralistic, corporative, segmented in subsystems or more loosely connected in garbage cans etc., and what these various models imply for the initiatives and impact of new ideas.

Moreover, PUBLIN will analyse the decision-making of the innovation: who initiated the innovation, was other alternatives considered and, if so why was this particular innovative idea selected and not other ideas?

Rational models, as the *rational choice* perspective are not very fruitful for studying complex innovation processes, neither in the public or the private sectors. The model portrays ideal

decision-makers who know all problems, solutions and choice-opportunities, and select the most efficient innovation for the public sector as a whole at the lowest costs. Hence, the rational actor knows all the possible innovative ideas that are possible to develop at the moment, and is able to calculate the costs and choice the best idea to develop as far at that moment. This is never the case.

In contrast, the theories of for example bureaucrats as *"budget-maximizers"* and *incrementalism* show how the public system is a barrier to rational decision-making. Still, from an innovation perspective it is not necessary negative that the bureaucrats are highly involved in political decision-making processes. Bureaucrats have specialised competences experiences and networks that can be used by politicians. Moreover they may provide political actors with alternative perspectives, for instance as regards the role of the public sector and how the public sector could be changed in order to become better.

On the other hand, it may be harder to see the innovation potential from the incremental perspective. Nevertheless, incrementalism does point of the importance of time and of how change is based on policy learning of earlier experiences in the public sector, as pointed out in the perspectives on how new rationalities are constructed. It should be noted that studies of innovation in the private sector demonstrates the value of incremental, step-by step innovation. Moreover, innovation is not an objective in itself. It is rather an instrument for achieving overreaching objectives for welfare and the quality of life. If a particular innovation is deemed to undermine such goals, more "hesitant" public servants may play an important role as check points.

In PUBLIN we will also analyse the two perspectives on implementation:
The two perspectives of innovation: the *top-down* and *bottom-up* perspectives have fundamentally different approaches to innovation, considering where the initiative come from, what is the role of the actors in the process and the possibility to actually change the system.

Change in the public sector through top-down processes are relatively well known in the reorganisation literature (e.g. Brunsson and Olsen 1993). In PUBLIN we will also study change as happening in bottom-up processes. We are especially interesting of whether innovation in the public sector at the service level involve actors operating at this level and/or if they have any innovative initiatives, and how learning of existing practice and experience is transferred to the political decision-makers at the top. Furthermore, we are interested in whether the activity at the service level actually is possible to change through top-down decisions of innovation or whether the activity is institutionalised in the institutional way of doing things (see section 3.4).

The bottom-up processes might stand out as the ideal for studying interactive learning processes involving policy agencies, service level organisation, NGOs, RTOs, KIBS, suppliers of technical equipment for the health and social service sectors, end users etc. But we must also have in mind that influence and learning from these actors and institutions may also find place in top down decision-making processes, for example through corporative arrangements, subsystems or networks.

# 6    New Public Management

The debate around New Public Management (NPM) has been one of the most striking international trends in public administration during the last 30 years. In studying innovation in

the public sector, the dominant role of NPM makes it important to know the fundamental aspects of the reform, the discussion of the supporters and the opponents and the debate of why NPM has reached this authority as a perspective in the public sector.

## *6.1    Some fundamental aspects of NPM*

In general, NPM is associated with a set of fairly similar administrative doctrines that have dominated the bureaucratic reform agenda in many OECD countries from the late 1970s. What unites these reforms is the use of private sector management principles for planning, managing and evaluating public sector (e.g. Hood 1991; Boston 1996; Minouge 1998; Christensen and Lærgreid 2001).

It is however important to emphasise that the reform agents did not use the term NPM when launching these reforms. The reform was later labelled NPM. Thus, reforms that are thought of as NPM might have started out with different objectives than those defined in the management inspired principles of NPM.

Partly, the central role can be explained by the loose definition of what NPM is, and partly by the strong emotions NPM arouse among researchers, politicians and bureaucrats. Crucial part of the perspective has been to define how to label, interpret and explain what NPM is and what it is not. The debate about NPM reforms has in many countries tended to fall into two extreme opinions; those who hold that NPM is the only way to correct for the irretrievable failures in the public sector (e.g. Keating 1989), and those that claim that NPM is undermining the quality found in the ethic and culture of the public sector (e.g Martin 1988; Nethercote 1989). These contradictories are reflected in the way different aspects of the NPM perspective is supported and abandoned.

Still, in most discussions of NPM we will find that the following doctrines appear, even though all are not equally present in every case (Hood 1991):
  * *Private sector styles of management principles*: a move away from bureaucracy-style to greater flexibility and new techniques.
  * *Competition* in public sector: rivalry is the key to lower costs and better standards, e.g. the use of public tendering procedures and term contracts.
  * *Disaggregate units*: break up of formerly monolithic units and the creation of manageable units where production and provision interests are separated. There is to be increased efficiency through the use of contract or franchise arrangements inside and outside the public sector.
  * *Hands-on professional management*: there is to be active, visible, discretionary control of organisations from named persons at the top. Accountability requires clear assignment of responsibility for action, not diffusion of power.
  * *Explicit standards and measures of performance*: there is to be definition of goals, targets and indicators of success, preferably expressed in quantitative terms. Accountability requires clear statement of goals, efficiency requires "hard look" at objectives.
  * *Output controls*: there is a need to stress results rather than procedures. Methods are break-up of centralized bureaucracy-wide personnel management, resource allocation and rewards linked to measured performance.
  * *Discipline and cost-cutting*: one must control demands for resources in public sector institutions and encourage them to do more with less. This entails cutting direct costs, raising labour discipline, resting union demands.

Theoretically NPM is based on the scientific management movement and new institutional economics (Hood 1991; Boston 1996; Christensen and Lærgreid 2001). The scientific management movement generated a set of administrative reforms in public sector based on the ideas of "professional management" in private sector. Professional management is thought to include active, visible and discretionary power, explicit standards of organisational performance, performance measurement and the development of appropriate cultures in the public sector (Peters and Watermans 1982; Osborne and Gaebler 1992).

New institutional economics, as for instance transaction cost theories (Williamson 1975; 1984; Baker et al. 2002) and public choice theory (Buchanan and Tullock 1962; Niskanen 1971; 1972), focus on institutional arrangements for efficient, streamlined and consistent political-administrative systems (Rhodes 1997).

Many academic commentators associate NPM with the political rise of the "New Right", but this does not explain why NPM emerged and why it has flourished the way it has done. The growth might be explained as a part of – and response to – the social historical chains of events in the public sector and society as a whole, involving the long peace period and the end of the general economic growth since World War II, the growth of the welfare state, the removal of traditional barriers between public sector and private sector by for example privatisation and contracting out of public services, the growth of public taxes and the rise of the white-collar heterogeneous population less tolerant of the social democratic universal rights and equality (Meltzer and Richard 1981; Hood 1991; Ackroyd 1995).

Another explanation, held by sceptics, is the "fashion interpretation" (Spann 1981; Painter 1988; Rørvik 1992, 1996). These scholars understand the dominant role of NPM as a result of its status as *the* administrative doctrine at the moment. By undertaking NPM reforms the public organisations show that they are able to keep themselves up to date, to be modern, and not rigid and old-fashion bureaucratic organisations. Hence, public organisations live up to a fashionable myth of how the organisational models should look like.

Third, the dominance of NPM might also be interpreted as the fairy-tale of the "Emperor's New Clothes": all hype and no substance. The only product of change is a change in language – the old problems remain (Brunsson 1989). This understanding partly overlaps with the view of NPM as a "cargo cult" phenomenon (Lawrence 1964; Worsley 1968; Downs and Larkey 1986; Lynn 1998), viewing NPM as a ritual change. The idea is that substantive success ("cargo") can be gained by the practice of particular kinds of rituals, viewing NPM as a simplistic and stereotyped recipe of change.

Fourth, the dominance of NPM might be explained by the authority NPM has reached as being the organisational model in control during 30 years. All new initiatives, both from within the public sector or from external sources and pressure groups, are marked by NPM ideas. NPM has become so dominant that it claims to be a universal theory (e.g. Hood 1991).

Critics hold that: "We cannot expect one single model of governance and autonomy to apply to all government agencies in all situations" (Christensen and Lærgreid 2001, p. 13). A transformative perspective is suggested as an alternative (Minouge et. al. 1998; Christensen and Lærgreid 2001).

The *transformative perspective* demonstrates why NPM may have different content, effects and implications in different countries. Reforms are filtered, interpreted and modified through

two nationally based processes: firstly by the national political-administrative history, culture, traditions and style of governance which have developed in an evolutionary manner, and secondly by the national policy features in constitutional and structural factors.

## *6.2   NPM as theoretical framework in PUBLIN*

In general, when studying the public sector, the dominant role of the NPM makes it important to understand the fundamental aspects of the reform, the discussion of the supporters and the opponents and the debate of why NPM has reached this authority as a perspective in the public sector. In studying innovation in the public sector it is particularly important because of the role NPM has had in the recent reforms and changes in the public sector. Hence, the PUBLIN project may choose to view NPM from two perspectives:

(1) As a tool used in public sector innovation
(2) As a theoretical perspective

NPM has clearly been used as a tool in the organisational changes of public sector the last 30 years. NPM has created change in the public sector. It might therefore be important to study NPM inspired change processes as innovation processes.

PUBLIN study innovation in the health and social service sectors at the policy level and the service level in eight countries. Certainly, several of these case studies are processes motivated by and/or dominated by the principles of NPM. PUBLIN studies where the initiatives to change comes from, who initiates the ideas, what are the alternatives considered and how is the ideas restrained and facilitated throughout the implementation of the innovation process etc.

At the same time, it is important to understand the theoretical content of the perspective in order to analyse the dominant role the perspective has had for the changes in the public sector the last years. Ideologies and rationalities should be considered objects of research. On the other hand some of the NPM literature includes advanced analyses of public health and social service in the public sector, and that literature may be of theoretical interest for PUBLIN.

Following the critics of NPM, the dominance of NPM has resulted in processes where parts of the public sector are reformed in unsuccessful ways because other innovations or reforms have not been considered and chosen. In contrast, the advocates of NPM find that NPM represents a selection of administrative innovations where good performance indicators for measuring efficiency and quality in public services are developed and where citizens actually influence the activity of the state in their roles as clients and consumers, and thereby making public services better.

PUBLIN will not follow the debate of NPM, but will analyse the influencing role the perspective had on the concrete case studies studied, and whether NPM had various impact on innovation processes at the policy level and the service level within the country and between different countries. Moreover, PUBLIN will study the policy learning processes of NPM at various levels in different countries.

Furthermore, the contributions of NPM might contribute to the theoretical framework in studying innovation in the public sector, by extending the other theoretical perspectives presented here. The systemic dynamic, the interactive understanding and cumulative learning processes in the systems of innovation perspectives might be extended by the understanding

of public sector as dominated by the fundamental aspects of NPM in the whole system, all relations and learning processes. The actor-network approach might explain how NPM scenarios have managed to developed into the successful rationale for the public sector, and the new institutional organisational perspective might explain how NPM is embedded in the institutional setting in the public sector etc.

# 7 Combining different theoretical traditions

The purpose of this paper is to give a basic understanding of the theoretical traditions that might be suitable for developing a theoretical framework for studying innovation in the public sector. The aim is not to develop a new grand unified theory of innovation in the public sector, but to make active use of the systemic approach to innovation and to learn from some of the other relevant theoretical traditions.

It is not possible to give a completely review of all theoretical contributions within these perspectives, but we have here presented some central ideas and perspectives and discussed how these approaches might contribute to the theoretical analysis in PUBLIN. In combining the understanding of these theories we will reach an adequate theoretical understanding in PUBLIN, and in this way contribute to the development of the theoretical understanding of innovation in the public sector.

Our basic understanding of innovation in the public sector is the systemic understanding of the systems of innovation. The systems of innovation approaches combine micro and meso perspectives of innovation. The focus is on the organisation in which innovation and learning takes place and on the interaction between this organisations, it's environment and the institutional, regulatory and cultural framework, including possible learning partners (research institutions, customers and clients, suppliers of competences and technologies etc.).

The other perspectives of innovation presented here, the innovation journey and the actor network perspective might contribute to our understanding on how innovation processes develop. The findings of the "road map" of innovations in the private sector, presented in the innovation journey might contribute to the development of an initial stage of the development of a "road map" for innovation journeys in the public sector. The actor network approach might contribute to a better understanding of how actors are motivated for change and what kind of strategies are used to create interest for new ideas and new knowledge, and might also contribute to the understanding of how macro and micro processes are connected in the society. Moreover, the actor network approach and other perspectives of belief systems might contribute to understand how the rationality in the society develops and changes over time and place, and how the numerous belief systems might come into being, coexist and change through interaction.

Organisational theoretical perspectives might contribute to a more precise understanding of the organisations that are a part of the innovation system or systems, and their propensity to innovate. The four theoretical traditions mentioned above may provide insight into different aspects of the organisations: (a) as regards the impact of the goal and the formal organisation on the behaviour in the organisations, (b) as regards the effect of the social behaviour of the actors in the organisation and the tendency to modify the organisational goals and formal expectations to the actual behaviour of the participants, (c) as regards how subsystems and interdependent activities are linked together through shifting coalitions of participants and (d) regarding how the institutional way of doing things are embedded in the organisation.

Approaches that are *not* useful in the PUBLIN context are those that reduce innovation to be the end result of a linear process starting in research institutions and ending up as new technologies used by public institutions. This may certainly happen, but our experience from studies of innovation in the private sector clearly shows that most innovation ideas and processes are born *within* companies or the institutions that need a solution to a specific problem. There is reason to believe that innovation in the public sector is also initiated within this sector, being that on the service level and/or on the policy level.

It follows from the complex and systemic nature of such innovation processes, and the social and cultural processes underpinning them, that any approach that reduce innovation processes to being the end result of purely rational deliberations made by the people formally in charge of the public sector, must be naive and misleading. PUBLIN must definitely look into the belief systems, barriers, drivers and incentives that encourage or hinders the innovative capabilities of all participants in the public sector, also on the policy level.

Studies of public policy are essential to understand how public policy is decided and implemented, and "who gets what, when and why?" (Laswell 1936). In studying innovation in the public sector we need to understand how public policy facilitate and restrain innovation. We find it at least useful to have some knowledge of theories: (a) of *who* participates in the decision-making processes in the public sector and who has the power to make decisions, (b) of the *decision-making processes* in the public sector and (c) of the *implementation processes* in the public sector.

However, again it is important not to reduce innovation processes to the effect of policy decisions. Policy decisions to change the conditions for the public sector activities, as for example the budget allocations to the public hospitals, might be studied as an innovation process; who initiated the change, what was the motivation to change the existing situation, how was the change implemented as a top-down initiated decisions to change. At the same time, innovation may perfectly well be initiated by people who do not have any formal authority to make policy decisions regarding innovation investments or strategies, but that innovate anyway, by implementing new technologies, finding new ways of solving practical problems, establishing new contacts etc. The bottom-up perspective on implementation in the public sector emphasises the importance of the local knowledge and experiences of the public sector activity, and the importance of learning of gained experiences in the implementation of public policy. Thus, the study of the policy decision making process must be a study of how and to what extent the policy goals and organisational structure hinders or encourages such activities.

For a discussion on learning and innovation on the policy level, see the PUBLIN report on policy learning.[12]

The presentation of the theoretical perspectives presented in this paper and how they might supply and extend each other might appear as a too complex theoretical framework for studying public sector innovation. Public sector innovation, however, is a complex phenomenon. Innovation in the public sector is complex because the public sector is vast and entails a variety of different innovation processes, for example, innovation in the public sector might develop new technological products, new services or new ways of delivering the public

---

[12] René Kemp and Rifka Weehuizen: *Policy learning, what does it mean and how can we study it?*, PUBLIN 2005.

services. These processes might have started off as a result of policy learning, but policy learning might as well be an innovation in itself, and innovation processes might also take place without any policy learning.

The innovation processes occur in specified sectors of the public sector, as for example in health, social service, education and defence sectors. In addition, the innovation processes happen at different levels, involving a wide range of different institutions and actors both within the public policy governance system, at various geographical levels (national, regional, local), pressure groups, private companies, public employees etc. Moreover, there is a significant overlap with the private and civil sectors, as such innovation processes often include private companies, NGOs, non-profit service-providers as well as public or semi-public institutions.

PUBLIN finds that the only way to understand this complexity is by accepting that it is there, and by learning from a wide variety of relevant schools and traditions.

# References

Abelson, R. P. (1976): "Script Processing in Attitude Formation and Decision Making", in . J. S. Carrol and J.W. Payne (eds): *Cognition and Social Behaviour*, pp. 33-45. Hillsdale, N. J.: Erlbaum.

Ackroyd, S. (1995): "From public administration to public sector management. Understanding contemporary change in British public services.", *International Journal of Public Sector Management*, Vol. 8, No. 2 1995, pp. 19-32.

Aldrich, H. E. and Fiol, C. M. (1994): "Fools rush in? The institutional context of industry creation.", *Academy of Management Review, 19 (4)*, pp. 645-670.

Ashby, W. R. (1956): "The Effect of Experience on a Determinant System", *Behavioural Science* 1, pp. 35-42.

Bachrach, P. and Baratz, M. S. (1963): "Decisions and Nondecisions: An Analythical Framework.", *American Political Science Review, Vol. 57.*

Baker, G. et. al. (2002): "Relational Contracts and the Theory of the Firm", *Quarterly Journal of Economics, 117:1*, pp. 39-84.

Barrett, S. and Hill, M. (1984): "Policy, Bargaining and Structure in Implementation Theory: Towards an Integrated Perspective", *Policy and Politics.* Vol. 12/3, pp.219-240.

Boston, J. (1996): *Public Management. The New Zealand Model.* Melbourne: Oxford University Press.

Bower, G., Black, J. and Turner, T. (1979): "Scripts in Text Comprehension and Memory", *Cognitive Psychology 11,* pp. 177-220.

Bozeman, D. P. et. al. (1996): "An examination of reactions to perceptions of organizational politics". Paper presented at the 1996 Southern Management Association Meetings, New Orleans.

Braybrooke, D. and Lindblom, C. E. (1963): *The Strategy of Decision.* New York: Free Press.

Breschi, S. and Malerba, F. (1997): "Sectoral innovation systems: technological regimes, Schumpeterian dynamics, and spatial boundaries", pp.130-156 in C. Edquist: *Systems of innovation. Technologies, institutions and organizations*. London and Washington, Pinter

Broch, M. (2005): *Mapping of Competence Report*, Working Report to the PUBLIN project.

Brunsson, N. (1989): *The Organization of Hypocrisy. Talk, Decision and Actions in Organization.* New York: Wiley.

Brunsson, N. and Olsen, J. P. (1993): *The Reforming Organization.* London: Routledge.

Buchanan, J.M. and Tullock, G. (1962): *The Calculus of Consent*. The Library of Economics and Liberty. Retrieved 27. Feb, 2003, from the World Wide Web: http://www.econlib.org/library/Buchanan/buchCv3Contents.html

Burns, T. and Stalker, G. M. (1961): *The Management of Innovation.* London: Tavistock.

Callon, M. (1980): "The State and Technical Innovation. A Case Study of the Electrical Vehicle in France", *Research Policy 9 (1980)*: 358-376.

Callon, M. (1992): "The Dynamic of Techno-Economic Networks", chap. 4 in R. Coombs, P. Saviotti and V. Walsh (eds): *Technological Change and Company Strategies*, pp. 72-102. London: Academic Press.

Callon, M. (1995): "Four models for the dynamic of science", Chap. 2 in J., Sheila et.al: *Handbook of Science and Technology Studies.* Thousand Oaks, California: Sage

Cantor, N. and Michel, W (1977): "Traits as Prototypes: Effects on Recognition Memory", *Journal of Personality and Social Psychology 35*, pp. 38-49.

Carlsson, B. (ed) (1995): *Technological Systems and Economic Performance: The Case of Factory Automation.* Dordrecht Kluwer.

Carlsson, B. and Stankiewicz, R. (1995): "On the nature, function and composition of technological systems", in B. Carlsson (ed): *Technological Systems and Economic Performance: The Case of Factory Automation.* Dordrecht: Kluwer.

Carlsson, B., S. Jacobsson, M. Holmén and A. Rickne (2002). "Innovation systems: analytical and methodological issues.", *Research Policy* 31: 233-245.

Christensen, T. and Lærgreid, P. (2001): *New Public Management: the Transformation of Ideas and Practice*. Aldershot: Ashgate.

Cohen, M. and March, J. G. (1974): *Leadership and Ambiguity: The American College President.* New York: McGraw-Hill.

Commons, J. R. and J. B. Andrews (1916): *Principle of labour legislation.* New York: Harper.

Commons, J. R. (1924): *Legal foundations of capitalism.* New York: Macmillan.

Commons, J. R. (1965): *The Distribution of wealth.* New York: Augustus M. Kelley.

Cooke, P. (1996): "Regional innovation systems: an evolutionary approach". In H. Baraczyk, P. Cooke and R. Heidenreich (eds): *Regional Innovation Systems.* London: University of London Press.

Coriat, B. and Weinstein, O. (2004): "National institutional frameworks, institutional complementarities and sectoral systems of innovation", in F. Malerba: *Sectoral systems of innovation. Concepts, issues and analysis of six major sectors in Europe*. Cambridge: Cambridge University Press.

Cowart, A. T., Hansen, T. and Brofoss, K. E. (1975):"Budgetary Strategies and Success at Multiple Decisions Levels in the Norwegian Urban Setting", *American Political Science Review*, Vol. 69/2, pp. 543-558.

Crozier, M. (1964): *The bureaucratic Phenomenon.* Chicago: University of Chicago Press.

Cyert, R. M. and March, J. G. (1963): *A Behavioural Theory of the Firm.* Englewood Cliffs, N.J.: Prentice Hall.

Dahl, R. A. (1956): *A preface to Democratic Theory*. Chicago: University of Chicago Press.

Dahl, R. A. (1961): *Who Governs? Democracy and Power in American City.* New Haven: Yale University Press.

Dahl, R. (1967): *Pluralist Democracy in the United States*. Chicago: Rand McNally.

Dosi, G. et al. (1988): *Technical Change and Economic Theory*. London and New York: Pinter.

Downs, G. W. and Larkey, P. D. (1986): *The Search for Government Efficiency: from hubris to helplessness.* Philadelphia: Temple University Press.

Dunleavy, P. (1991): *Democracy, Bureaucracy and Public Choice.* New York: Harvester Wheatsheat.

Dye, T. R. (2002): *Understanding Public Policy.* Tenth Edition. Upper Saddle River, N.J.: Prentice Hall.

Easton, D. (1953): *The Political System: An Inquiry into the State of Political Science.* New York: Knopf.

Edquist, C. (1997): *Systems of Innovation. Technologies, Institutions and Organizations.* London and Washington: Pinter.

Egeberg, M. (1984): *Organisasjonsutforming i offentlig virksomhet.* Oslo: Ascheoug.

Egeberg, M. (1995): "Bureaucrats as public policy-makers and their self-interests", *Journal of Theoretical Politics 7(2)*: pp. 157-167.

Egeberg, M. et. al. (1978): Organisasjonssamfunnet og den segmenterte stat. Arbeidsnotat, Maktutredningen.

Elmore, R. (1980): "Backward Mapping: Implementation Research and Policy Decisions", *Political Science Quarterly.* Vol. 94/3, pp. 601-616.

Elster, J. (1983): *Sour grapes: Studies in the subversion of rationality.* Cambridge: University Press.

Elster, J. (1989): *Nuts and bolts for the social sciences.* Cambridge: University Press.

Fayol, H. (1949): *General and Industrial Management.* London: Pitman.

Ferris, G.R. et. al. (1989). "Politics in organizations". In R.A. Giacalone & P. Rosenfeld (Eds.): *Impression Management in the Organization*, pp.143-170. Hillsdale, NJ: Erlbaum.

Ferris, G. R. and Kacmar, K. M. (1992): "Perceptions of organizational politics", *Journal of Management,* 18, 93-116.

Fiske, S. T. (1982): "Schema-Triggered Affect: Applications to Social Perception". In M. S. Clarke and S. T. Fiske: *Affect and Cognition: The 17th Annual Carnegie Symposium on Cognition*, pp. 55-78. Hillsdale, N.J.: Erlbaum.

Folger, R. et. al. (1992). "A due process metaphor for performance appraisal". In L.L. Cummings & B.M. Staw (Eds.): *Research in Organizational Behavior, 14*, pp. 129-177. Greenwich, CT: JAI Press.

Freeman, C. (1987): *Technology Policy and Economic Performance: Lessons from Japan.* London: Pinter.

Freeman, C. (1995): "The national system of innovation. In historical perspective.", *Cambridge Journal of Economics, 19 (1)*, 5-24.

Gadamer, Hans-Georg (1989): *Truth and Method*, Sheed and Ward, London.

Galbraith, J. (1973): *Designing Complex Organizations.* Reading, Mass.: Adddison-Wesley.

Granovetter, M. (1985): "Economic Action and Social Structure: The Problem of Embeddedness", *American Journal of Sociology 91*, pp. 481-510.

Gregory, R. (1989): "Political rationality or incrementalism? Charles E. Lindblom's enduring contribution to public policy making". *Policy and Politics*, Vol. 17/2, pp. 139-153.

Gulick, L. and Urwick, L. (1937): *Papers on the Science of Administration*. New York: A. M. Kelley.

Heclo, H. (1978): "Issue Networks and the Executive Establishment", in Anthony King (ed): *The New American Political System.* Washington: American Enterprise Institute, pp. 87-124.

Heidegger, M (1977): *Basic writings*, Harper and Row, NY.

den Hertog, J. F. and Huizenga, E. (2000): *The Knowledge Enterprise. Implementation of Intelligent Business Strategies.* London: Imperial College Press.

Hood, C. (1991): "A Public Management for All Seasons?", *Public Administration*, Vol. 69, pp. 3-19.

Jordan, A. G. (1990): "Sub-Governments, Policy Communities and Networks: Refilling the Old Bottles?", *Journal of Theoretical Politics 2*, pp. 319-328.

Jordan, A. G. and Richardson, J. (1982): *Policy Styles in Western Europe.* London: Allen and Unwin.

Kachmar, K. M. and Ferris, G. R. (1991): "Further validation of the perceptions of politics scale (POPS): A multiple sample investigation". Paper presented at Academy of Management meeting in Dallas, Texas.

Kariel, H. S. (1984): "Pluralismen". In B. Hagtvet and W. Lafferty (eds): *Demokrati og demokratisering.* Oslo: Aschehoug.

Keating, M. (1989): "Quo vadis: challenges of public administration". Adress to Royal Australian Institute of Public Administration, Perth, 12. April 1989.

Kelso, W. A. (1984): "To teorier om pluralismen". In B. Hagtvet and W. Lafferty (eds): *Demokrati og demokratisering.* Oslo: Aschehoug.

Kemp, R. and Weehuizen, R. (2005): *Policy learning, what does it mean and how can we study it?*, PUBLIN, Working Report to the PUBLIN project.

Kiesler, S. and Sproul, L. (1982): "Managerial Responses to Changing Environments: Perspectives on Problem Sensing from Social Cognition", *Administrative Science Quarterly 27(4)*, pp. 548-570.

Kipnis, D., Schmidt, S.M., & Wilkinson, I. (1980). "Intraorganizational influence tactics: Exploration in getting one's way", *Journal of Applied Psychology, 65*, 440-452.

Kjellberg, F. and Reitan, M. (1995): *Studiet av offentlig politikk – en innføring.* Oslo: TANO.

Kulik, C. (1989): "The Effects of Job Categorization on Judgments of the Motivating Potential of Jobs", *Journal of Economic Behaviour and Organization 10*, pp. 143-171.

Lane, J-E (1992): *The Public Sector. Concepts, Models and Approaches.* London: SAGE.

Laswell, H. D. (1936): *Politics. Who gets What, When and How.* Cleveland: Meridan.

Latour, B. and Woolgar, S. (1979): *Laboratory life, The Construction of Scientific Facts.* Beverly Hills: Sage Publications.

Latour, B. (1987): *Science in action: how to follow scientists and engineers through society.* Cambridge: Harvard University Press

Lawrence, P. (1964): *Road belong cargo.* Manchester: Manchester University Press.

Leavitt, H. J. (1965): "Applied Organizational Change in Industry: Structural, Technological and Humanistic Approaches", in March, James G. (ed): *Handbook of Organizations*, pp. 1144-70. Chicago: Rand McNally.

Levinthal, D. and March, J. G. (1982): "A model of adaptive organizational search", *Journal of Economic Behaviour and Organization, 2*, pp. 307-333.

Lindblom, C. E. (1959): "The Science of Muddling Through". *Public Administration Review*, 19, 1959.

Lindblom, C. E. (1968): *The Policy Making Process.* Englewood Cliffs N. J.: Prentice-Hall.

Lukes, S.: *Power.* London: Macmillan.

Lundvall, B-Å (ed) (1992): *National Systems of Innovation. Towards a Theory of Innovation and Interactive Learning.* London: Pinter.

Lundvall, B.-Å., Johnson, B., Andersen, E.S. and Dalum, B. (2002): "National systems of production, innovation and competence building.", *Research Policy* 31, pp. 213-231.

Lynn, L. E. (1998): "The New Public Management: How to Transform a Theme into a Legacy", *Public Administration Review*, 1998, Vol. 58, No. 3, pp.231-237.

Lærgreid, P. and J. P. Olsen (1978): *Byråkrati og beslutninger.* Bergen: Universitetsforlaget.

Malerba, F. (2002): "Sectoral systems of innovation and production", *Research Policy* 31 (2), pp. 247-264.

Malerba, F. (2004). "Sectoral systems of innovation: basic concepts", pp. 9-14 in F. Malerba: *Sectoral systems of innovation. Concepts, issues and analyses of six major sectors in Europe.* Cambridge, Cambridge University Press.

Malerba, F. and L. Orsenigo (1993): "Technological regimes and firm behavior.", *Industrial and Corporate Change* 2(1), pp. 45-71.

March, J. G. (1999): "A Learning Perspective on the Network Dynamics of Institutional Integration", chap. 7 in M. Egeberg and P. Lærgreid: *Organizing Political Institutions. Essays for Johan P. Olsen.* Oslo: Scandinavian University Press.

March, J. G. and Simon, H. A. (1958): *Organizations.* New York: Wiley

March, J. G. and Olsen, J. P. (1975): "The Uncertainty of the Past: Organizational Learning under Ambiguity". *European Journal of Political Research 3,* pp. 147-171.

March, J. G. and Olsen, J. P. (1976): *Ambiguity and Choice in Organizations.* Oslo: Scandinavian University Press.

March, J. G. and Olsen, J. P. (1984): "The New Institutionalism: Organizational Factors in Political Life", *American Political Science Review 78,* pp. 734-49.

March, J. G. and Weissinger-Baylon, R. (1986) (eds): *Ambiguity and Command.* Cambridge, Mass.: Ballinger.

March, J. G. and Olsen, J. P. (1989): *Rediscovering Institutions: The Organizational Basis of Politics.* New York: Free Press/Macmillan.

March, J. G. and Olsen, J. P. (1995): *Democratic Governance.* New York: Free Press.

Martin, J. (1988): *A Profession of Statecraft? Three essays on some current issues in the New Zealand public service.* Wellington: Victoria University Press.

Mayo, E. (1945): *The Social Problems of and Industrial Civilization.* Boston: Graduate School of Business Administration, Harvard University.

Meltzer, A. H. and S. F. Richard (1981): "A rational theory of the size of government". *Journal of Political Economy*, pp. 914-27.

Meyer, J. (1977): "The Effects of Education as an Institution". *American Journal of Sociology 83,* pp. 53-77.

Meyer, J. and Rowan, B. (1977): "Institutionalized Organizations: Formal Structure as Myth and Ceremony". *American Journal of Sociology 83,* pp. 340-363.

Michel, R. (1949): *Political Parties,* trans. Eden and Cedar Paul. Glencoe, III: Free Press.

Minouge, M. et. al. (1998): *Beyond the New Public Management: Changing Ideas and Practice in Governance.* Cheltenham, Mass.: Edward Elgar.

Mintzberg, H. (1979): *The Structure of Organizations.* Englewood Cliffs, N. J.: Prentice-Hall.

Mintzberg, H. (1983): *Power in and around Organizations.* Englewood Cliffs, N. J.: Prentice-Hall.

Musgrave, R. A. and P. B. Musgrave (1973): *Public Finance in Theory and Practice.* New York: McGraw-Hill.

Naschold, F. and Von Otter, C. (1995): *Public Sector Transformation. Rethinking Markets and Hierarchies in Government*. Amsterdam/Philadelphia: John Benjamins Publishing Company.

Nelson, R. (1987): *Understanding Technical Change as an Evolutionary Process.* Amsterdam: Elsevier.

Nelson, R. (1993): *National Systems of Innovation: A Comparative Study.* Oxford: Oxford University Press.

Nelson, R. (1995): Recent evolutionary theorizing about economic change, *Journal of Economic Literature, 33*, March, pp. 48-90.

Nelson, R. and Winter, S. G. (1982): *An Evolutionary Theory of Economic Change*. Harvard College: The Belknap Press of Harvard University.

Nethercote, J. R. (1989): "The rhetorical tactics of managerialism: reflections on Michael Keating's apologia, "Qua Vadis", *Australian Journal of Public Administration 48*, pp. 363-367.

Niskanen, W. A. (1971): *Bureaucracy and Representative Government*. Chicago: Aldine Atherton.

Niskanen, W. A. (1973): *Bureaucracy: Servant or Master?* Hobart paperback No.5, IEA.

Niskanen, W. A. (1991): "A Reflection on "Bureaucracy and Representative Government" in Andre Blais and Stephane Dion (eds) *The Budget-Maximizing Bureaucrat. Appraisals and Evidence*, pp. 13-31. Pittsburgh, P.A.: University of Pittsburgh Press.

North, Douglas C. (1990): *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.

North, Douglass C. (1996) "Economics and Cognitive Science", IDEAS Working papers.

Offerdal, A. (1984): "Iverksetting og politikk. Eller: Om det vellukka og det mislukka", *Statsviteren, Vol. 7/2,* pp. 20-49.

Offerdal, A. (1992): *Den politiske kommunen.* Det Norske Samlaget.

Olsen, J. P. (1980): "Governing Norway: segmentation, anticipation and consensus formation". Working paper, The Study of Power and Democracy (Maktutredningen).

Olsen, J. P. (1992): "Analyzing Institutional Dynamics", *Staatswissenschaften und Staatpraxis 2*, pp. 247-271.

Olsen, J. P. (1996): "Norway: Reluctant Reformer, Slow Learner – or Another Triumph of the Tortoise?", in J. P. Olsen and B. G. Peters (eds): *Lessons from Experience, Experiential Learning in Administrative Reforms in Eight Democracies*, pp. 180-213. Oslo: Scandinavian University Press.

Osborne, D. and Gaebler, T. (1992): *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector.* Mass.: Addision-Weesley Publishing Company.

Painter, M. (1988): "Public Management: Fad or Fallacy?", *Australian Journal of Public Administration*, vol. 47, pp. 1-3.

Parson, T. (1951): *The Social System.* Glencoe, III: Free Press.

Parson, T. (1960): *Structure and Process in Modern Societies*. Glencoe, III: Free Press.

Perrow, C. (1984): *Normal Accidents: Living High-Risk Technologies.* New York: Basic Books.

Peters, B. G. (1989): *The Politics of Bureaucracy*. New York: Longman.

Peters, T. and Waterman, R. (1982): *In Search for Excellence.* New York: Harper and Row.

Pfeffer, J. and Salancik, G. (1978): *The External Control of Organizations*. New York: Harper and Row.

Pollit, C. (1999): "Bringing Consumers into Performance Measurement: Concepts, Consequences and Constraints", *Policy and Politics, Vol. 16, No. 2,* pp. 77-87.

Powell, W. W. and DiMaggio, P. J. (1991) (eds): *The New Institutionalism in Organizational Analysis.* Chicago: The University Press of Chicago.

Pressman, J. L. and Wildavsky, A. (1973): *Implementation.* Berkely: California University Press.

Rhodes, R. A. W. (1997): *Understanding Governance: Policy Networks, Governance, Reflexitivity and Accountability.* Buckingham: Open University Press.

Ricoeur, P (1974): *The Conflict of Interpretations: Essays in Hermeneutics*, Northwestern University Press, Evanston.

Rokkan, S. (1987): "Stemmer teller, ressurser avgjør. Refleksjoner over territorialitet versus funksjonalitet i norsk og europeisk politikk", in S. Rokkan.: *Stat, nasjon, klasse.* Oslo: Universitetsforlaget.

Rosch, E. (1978): "Principle of Categorization", in E. Rosch and B. B. Lloyd: *Cognition and Categorization*, pp. 27-48. Hillsdale, N. J.: Erlbaum.

Rosch, E. et. al. (1976): "Basic Objects in Natural Categories.", *Cognitive Psychology 8*, pp. 382-439.

Røvik, K. A. (1992): *Den "syke" stat. Myter og moter i omstillingsarbeidet.* Oslo: Universitetsforlaget.

Røvik, K. A. (1996):"Deinstitutionalisation and the logic of Fashion", in B. Czarniawska and G. Sevón (eds): *Translating Organizational Change*, pp. 139-172. Berlin: de Gruyter.

Sabatier, Paul. A. (1993) Policy Change over a Decade or More,  in Paul A. Sabatier and Hank Jenkins-Smith (eds.) *Policy Change and Learning. An Advocacy Coalition Approach*, Boulder: Westview Press, 13-39.

Sabatier, P. A. (1999): *Theories of the Policy Process.* Colorado: Westview Press.

Sabatier, Paul A., and Hank C. Jenkins-Smith (1999b): 'The Advocacy Coalition Approach: An Assessment'*,* in Paul Sabatier (ed.), *Theories of the Policy Process*, Westview Press, Boulder, 117-166.

Saxenian, A. (1994): *Regional Advantage. Culture and Competition in Silicon Valley and Route 128.* Cambridge: Cambridge University Press.

Schmitter, P. C. (1979): "Still the Century of Corporatism?" In P. C. Schmitter and G. Lehmbruch (eds): *Trends Toward Corporatist Intermediation.* London: Sage Publications.

Schmitter, P. C. and Lehmbruch, G. (1979): *Trends Toward Corporatist Intermediation.* London: Sage Publications.

Schnattschneider, E. E. (1960): *The Semi-Sovereign People*. New York: Holt, Reinehart and Winston.

Scott, R. W. (1983): "The Organization of Environments: Network, Cultural and Historical Elements", in *Organizational Environments*, ed. J. W. Meyer and W. R. Scott, pp. 155-175. Beverly Hills, California: Sage.

Scott, R. W. (1992): *Organizations. Rational, Natural and Open Systems*. Third edition. Englewood Cliffs, N.J.: Prentice Hall.

Selznick, P. (1948): "Foundations of the Theory of Organization", in *American Sociological Review*, 13, pp. 25-35.

Selznick, P. (1949): *TVA and the Grass Roots*. Berkeley: University of California Press.

Selznick, P. (1957): *Leadership in Administration*. New York: Harper & Row, Pub.

Simon, H. A. (1945): *Administrative Behavior, A Study of Decision-Making Processes in Administrative Organization*. New York and London: The Free Press

Sinclair-Desgagne, Benard and Antoine Soubeyran (2000): "A Theory of Routines as Mindsavers", CIRANO Scientific Series 2000s-52.

Spann, R. N. (1981): "Fashions and Fantasies in Public Administration", *Australian Journal of Public Administration 40*, pp. 12-25.

Strange, S. (1988): *States and Markets*. London: Pinter.

Streeck, W. and Scmitter, P. C. (1985): "Community, Market, State – and Associations", *European Sociological Review, Vol. 1,* pp. 119-138.

Taylor, F. W. (1911): *The Principles of Scientific Management*. New York: Harper.

Taylor, S. E. and Crocker, J. (1980): "Schematic Bases of Social Information Processing. In E. T. Higgins, P. Herman and M. P. Zanna (eds): *The Ontario Symposium on Personality and Social Psychology*. N. J.: Erlbaum.

Theodoulou, S. Z. and Cahn, M. A. (1995): *Public Policy. The Essential Readings*. Englewood Cliffs, N.J.: Prentice Hall.

Tullock, G. (1976): *The Vote Motive*. London: Institute of Economic Affairs.

Truman, D. B. (1971): *The Governmental Process*. New York: Knopf, 2nd ed.

Van de Ven, A. H. (1986): "Central problems in the management of innovation", *Management Sciences, 32 (5),* pp. 590-607.

Van de Ven, A. H. et. al (1999): *The Innovation Journey*. New York, Oxford: Oxford University Press.

Van Meter, D. S. and Van Horn, C. E. (1975): "The Policy Implementation Process: A Conceptual Framework", *Administration and Society,* Vol. 6/4, pp. 445—488.

Veblen, T. (1899): *The theory of the leisure class: an economic study of institutions.* New York: Macmillan.

Veblen, T. (1914): *The instinct of workmanship and the state of industrial arts.* New York: Macmillan.

Veblen, T. (1961): *The place of science in modern civilizations and other essays.* New York: Russel & Russel.

Vigoda, E. (2000A). "Internal politics in public administration systems: An empirical examination of its relationship with job congruence, organizational citizenship behavior and in-role performances", *Public Personnel Management, 26,* 185-210.

Vigoda, E. (2000B). "The relationship between organizational politics, job attitudes, and work outcomes: Exploration and implications for the public sector", *Journal of Vocational Behavior*, forthcoming.

Walsh, K. (1995): *Public Services and Market Mechanisms: Competition, Contracting and the New Public Management*. London: MacMillan Press Ltd.

Weber, M. (1946): *From Max Weber: Essays in Sociology*. New York: Oxford University Press.

Weber, M. (1947): *The Theory of Social and Economic Organization*. Glencoe III: Free Press.

Weber, M. (1968): *Economy and Society: An Interpretative Sociology*. New York: Bedmister Press.

Weber, M. (1994): *Makt og byråkrati. Essays om politikk og klasse, samfunnsforskning og verdier.* 2. utgave, 3. opplag. Oslo: Gyldendal.

Weick, K. E. (1969): *The Social Psychology of Organizing.* Reading, Mass.: Addison-Wesley.

Weick, K. E. (1976): "Educational Organization as Loosely Coupled Systems", *Administrative Science Quarterly,* 21, pp. 1-19.

Wildavsky, A. (1964): *The Politics of the Budgetary Process.* Boston: Little Brown.

Wildavsky, A. (1973): "If Planning is Everything, Maybe it's Nothing", *Policy Sciences 4*, 1973:127-153.

Wildavsky, A. (1980): *The Art and Craft of Policy Analysis.* London: Macmillan.

Williamson, O. E. (1975): *Markets and Hierarchies: Analysis and Antitrust Implications.* New York: The Free Press

Williamson, O. E. (1984): "The Economics of Governance: Framework and Implications", *Journal of Institutional and Theoretical Economics,* pp. 54-81.

Winter, S. G. (1984): "Schumpeterian competition in alternative technological regimes", in *Journal of Economic Behavior and Organization* 5, pp. 287-320.

Woorsley, P. (1968): *The trumpet shall sound.* London: MacGibbon and Kree.

Zucker, L. (1983): "Organizations as Institutions", in S. B. Bacharach (ed) *Research in the Sociology of Organizations*, pp. 1-42. Greenwich, Conn: JAI Press.

Zucker, L. (1987): "Institutional Theories of Organizations", in *Annual Review of Sociology 13,* pp. 443-464.