

POLICY IMPLEMENTATION AND COGNITIVE SKILLS: THE DIFFICULTY OF UNDERSTANDING IMPLEMENTATION

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ABSTRACT

The policy implementation research literature has identified several variables that influence implementation. This article will mainly focus on sense-making in the implementation process. What a policy means for the implementers is constituted in the interaction of their knowledge, beliefs, and attitudes with the situation. The understanding of the policy message is influenced by individual cognition, situated cognition and the role of the implementing agents. The implementing agents sometimes reject or fundamentally revise national policy proposals. To take a stand against a certain policy, implementers must first know what it is that the directive is asking them to do. The understanding of directives requires cognitive skills and processes of interpretation. What implementers' make of new information has much to do with prior knowledge, expertise, values, beliefs, and experiences. The article reviews the contribution of cognitive frames to implementation and attempt to make additional contributions.

INTRODUCTION

We have witnessed several efforts to reform the quality of service delivery. The question is really what is behind all the service delivery attempts. In this paper the focus will be on the skills challenge that relates to policy implementation. Reformers are constantly using public policy to press for fundamental and complex changes in society. In this paper the approach will be to outline the conditions under which public policy is implemented by focusing on the understanding and interpretations of especially the implementers. The cognitive component of the implementation process will be highlighted by identifying a set of constructs and their relationships.

How the implementers understand the policy message is a function of a number of cognitive structures, like knowledge, beliefs and attitudes. All these frameworks every time pertain to a specific situation. The individual implementer operates as individual sense-maker. In this instance prior knowledge, beliefs, and experiences influence new understandings. The situation or context complicates human sense-making further. The role of policy stimuli in implementation is also influencing the sense-making aspect. The design challenges of policy can therefore influence implementation.

COGNITIVE AND NORMATIVE FRAMES I POLICY-MAKING

According to Spillane *et al.* (2002:390) the implementing agents' often fail to notice, intentionally ignore, or selectively attend to policies that are inconsistent with their own interests and agendas. Policies that fit their own interest are more likely to be implemented. The emphasis on the interpretive and sense-making dimensions of the implementation process necessitates the study of the cognitive framework of the implementers. Implementers' prior knowledge plays a role in their understanding of new ideas. Sense-making is also influenced by aspects in the social situation, like organisational and community history, professional expertise, and formal and informal networks (Spillane *et al.* 2002:392).

Cognitive and normative elements play an important role in how implementers understand and explain the world. In short, the dynamics of the social construction of reality is shaping specific and socially legitimate frames and practices (Surel 2000: 496). In the policy literature more emphasis is currently being placed on values and ideas in the study of public policy.

In spite of differences in social context, macro-level questioning aims to shed light on global social norms and behaviour as well as public policy. World views, mechanisms of identity formation, principles of action, as well as methodological prescriptions and practices are all bringing together paradigms, belief systems and referentiels (Surel 2000: 496). These frames constitute conceptual instruments for the analysis of policy implementation.

ELEMENTS OF COGNITIVE AND NORMATIVE FRAMES

The three elements of cognitive frames overlap to a certain degree. All these elements in combination produce a coherent paradigmatic frame, and include the following: metaphysical principles, specific principles, forms of action and instruments. Table 1 depicts the elements of cognitive and normative frames.

According to the elements in Table 1 values and metaphysical beliefs define the world view. In this instance Sabatier (1998:103) argues that the deep core includes basic ontological and normative beliefs, such as the relative valuation of individual freedom versus social equality. These beliefs are critical for all policy domains.

The second cognitive frame comprises specific principles that explain general and abstract principles. The second layer of elements includes the operationalisation of values

Table 1: Elements of cognitive and normative frames

	Paradigm	Advocacy coalition framework	Referential
Metaphysical principles	Policy paradigm	Deep core	Values Images
Specific principles		Policy core	Norms
Forms of action	Choice of instruments		Algorithms
Instruments	Specifications of instruments	Secondary aspects	

Source: Surel 2000: 497

in one domain or a particular policy. The most practical way to achieve these values is linked to the most appropriate methods and means (form and actions). The last level of elements is concerned with specific instruments which is shaped and sculptured to ensure their congruence with the other elements (Surel 2000:498).

It is important to note that it is a combination of these elements that gives rise to particular mental maps. The so-called societal paradigm is core to a particular policy. The cognitive and normative frames determine the societal paradigm and are explained by Jensen (1989:239) as follows:

"... a shared set interconnected premises which make sense of many social relations. Every paradigm contains a view of human nature, a definition of basic and proper forms of social relations among equals and among those in relationships of hierarchy, and a specification of relations among institutions as well as a stipulation of the role of such institutions. Thus, a societal paradigm is a meaning system as well as a set of practices"

DEVELOPMENT OF IDENTITY AND ALLOCATION OF POWER

One of the major functions of cognitive and normative frames is to develop a collective consciousness. The connection between values, representations and global norms underlines a paradigm. This paradigm results in identity production. The very existence of cognitive and normative frames is therefore both a source of boundaries for a group or an organisation, and a source of overlapping of these boundaries. This matrix allows adherents to view themselves in relation to the world (Surel 2009:500). An example might be the medical profession which established norms and principles for the profession, as well as the relations to other actors like patients, the state and medical schemes (Surel 2009:500). The interplay between the actors is therefore a major contributor for cognitive and normative frames. In public policy certain actors

produce or diffuse cognitive and normative frames. A paradigm shift effectively can lead to the transformation and reallocation of power. Different kinds of policies can therefore not only contribute to a paradigm shift, but also a reallocation of power (Surel 2009:501). The understanding of policy implementation will be perceived by the actors through their lens of pre-existing beliefs (Sabatier 1998:109).

POLICY MANAGEMENT OF TENTION AND CONFLICT

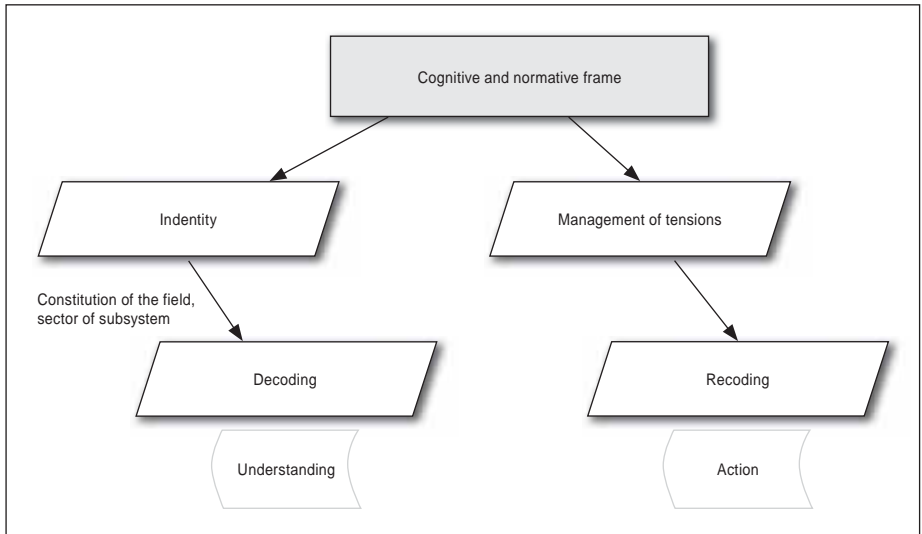
Each policy subsystem succeeds through the cognitive and normative frame which characterises it, and therefore managing the conflicts and tension arising from its location in global society (Surel 2009:502). The implementation of a particular policy does not mean the disappearance of all forms of conflict. A cognitive and normative frame signifies by no means a dominant paradigm, but only marks out a terrain for social exchange. Figure 1 depicts a simplistic view of the appropriateness of cognitive and normative frames.

One can therefore find that a constant change of the cognitive and normative frames is possible. The understanding of a public policy will therefore change through its implementation and is also a continuous learning process.

The individual implementer as sense-maker

Individuals assimilate new experiences and information through their existing knowledge structures. Policy implementation depends therefore to a great extent on the repertoire of

Figure 1: Simplistic view of cognitive and normative frames



Source: Surel 2009:502

existing knowledge and experience. Policy implementers can fail, not because they are unwilling to implement, but perhaps their ability to implement is hampered by the extent of their understanding that do not align with the policy-maker's intentions. The role of human sense-making can easily contribute to unintentional failures of implementation (Spillane *et al.*, 2002:395).

Different interpretations of the message

Even implementers with the same language can have different interpretations of the same policy message. The possibility exists that implementers interpret differently what was intended by the policy-makers. Prior knowledge of a particular policy is one of the major contributing factors to differences in interpretation. The studies on implementation reveal that importance of the meanings that implementers create when they interpret policy messages. Another flaw in interpretation is where the implementers' comprehension of a new policy may seem more familiar than it actually is. When a new policy is interpreted; it is perceived essentially the same as the belief or practice that the implementer already hold. The influence from expectations on existing knowledge structures lead to the rejecting of information incongruous with those expectations (Spillane *et al.*, 2002:398).

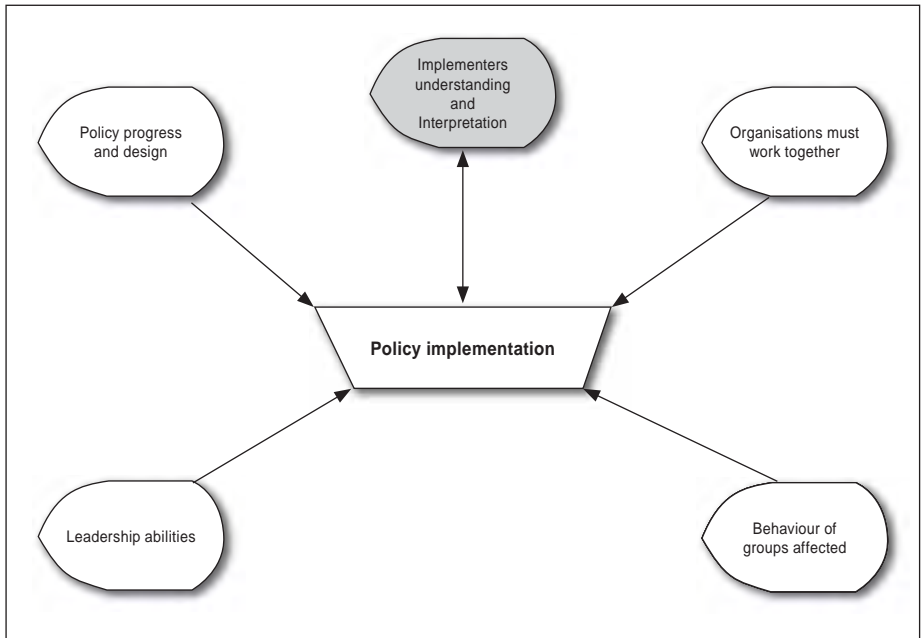
New policies that require fundamental change is extremely difficult to implement. Understanding involves accessing relevant knowledge structures in memory and applying them to sense-making. The approach to processing new knowledge and policies is a conserving process, preserving existing frames rather than radically transforming them. A huge obstacle to implementation is when new ideas are seen as familiar (Spillane *et al.*, 2002:400). A mere superficial comparison between existing knowledge and a new policy can easily mislead implementers. When it comes to policies that require complex or novel changes in extant behaviour and knowledge, most implementers tend to be novices. When a policy charts a new field, only a few experts are available.

The value of implementers' learning experience

The implementers' learning experience augments traditional theories of implementation. The actors' understanding or misunderstanding influences policy outcomes. This does not mean that experience and understanding are the only variables that might effect implementation. According to O'Toole (1986) scholars have identified more than three hundred variables that might affect implementation.

There are four main categories of variables that influence policy implementation. One category is policy and the policy process: through its design and the resources devoted to its implementation. A second category of variables are institutions and their milieu; where organisations must work together to produce policy. A third category of variables are implementers and agents whose preferences and leadership abilities may further shape policy outcomes. The final category of variables pertain to the conditions within the policy environment. These conditions include the behaviour of groups affected by the policy,

Figure 2: Four main categories of variables influencing implementation



Source: Adopted from Hill (2003:267)

economic conditions, and public opinion (Hill 2003:267). **Figure 2** depicts a simplistic summary of the four categories of variables that influence policy implementation.

It is interesting to note that a good portion of the policy implementation literature assumes that policy meanings are shared, a priori, among policy designers, implementers and their managers. This article argues from the thesis that policy often carries vague, unresolved, or conflicting meanings. One reason may be that legislators resolve differences through compromise, language that complicates implementation. The implementers' thoughts extend beyond simply whether to implement or not and pertinently include a judgement about what the policy means. The world of the implementer often contains poor guidance for practice and implementers of policy work under incomplete, inaccurate, or simply idiosyncratic understandings of what policy means. The four main categories of variables that influence implementation should therefore add the implementers understanding and the realisation that interpretation is not only a matter for the courts (Hill 2003:268).

Experts' assistance with policy implementation

Individuals as policy experts or even organisations can provide professional assistance with policy implementation. These kinds of experts can include consultants, academics, entrepreneurs, foundations, and professional associations. These implementation resources

exist primarily outside formal government structures. The expertise of these resources comes in the form of theory, knowledge, or technical advice that informs day-to-day practice. These resources can also further complicate the relationships between designers of legislation, organisations, and implementers by acting as interpreters of policy and suppliers of policy-relevant practices (Hill 2003:270).

Cognitive breakthroughs of studies on public policy

The aspect of knowledge in public policy studies could consist of two approaches. The one approach is to aim to advance knowledge in the study of policy. This kind of knowledge pertains to the academic field of public policy. The other approach counts on programme improvement and policy knowledge that would contribute to successful implementation (Gagnon *et al.*, 2007:44). The cognitive construct of implementers are influenced by previous aspects and experiences. One such an aspect is the policy subsystem as identified by Sabatier, comprising a coalition of networks (people and organisations) that interact regularly over a period of a decade or more influencing a given policy domain. In each subsystem there are coalitions of networks that are formed from a belief or common values that advocate their cause (Gagnon *et al.*, 2007:45). It is interesting to note the existence of a three-tiered belief system. The first level is that of an individual's deep core values, which comprise his/her fundamental principles. These kinds of values represent values such as freedom, justice and equality. The second level represents the values that are translated into the policy core. The third level comprise the instrumental decisions that apply to administrative regulations, budgetary allocations and all instances where discretionary decisions are taken (Gagnon *et al.*, 2007:46).

The case of traditional medicine in contemporary public policy

Discourses on the traditional medicine in Africa and other indigenous societies often assume automatic recognition and integration into formal health care systems. This topical issue might be a good example of how knowledge is currently reproduced or transmitted from one generation to another. The world wide economic recession and the increasing in prices of Western medicine means that individuals, and to a lesser extent, governments are increasingly turning to traditional medicines as affordable alternative (Tsey 1997:1065). The World Health Organisation (WHO) and other international agencies throughout the Third World actively promote traditional medicine. The resurgence of traditional medicines in countries like South Africa, Australia, New Zealand and Ghana are often part of pride and culture identity. The question is really whether the knowledge about the traditional medicines is part of the knowledge and cognitive construct of formal health care systems. A starting point to address the transfer of knowledge of traditional medicines and practices should be part of the formal training in health care sectors (Tsey 1997:1066). While the expectation exists to transform and transplant traditional medicines into Western care systems, little understanding exists about the social context of traditional

medicines. The question is really what is the baseline knowledge needed for informed policy-making (Tsey 1997:1073).

The social context of traditional medicines is critical for the understanding of public policy. The 'spiritually based' traditional practitioners in the provision of care, especially people with mental health problems, are often unable to deal with mental health related cases. The integration of policies with respect to biomedical trained and traditional practitioners often cause ethical issues. The so-called modernisation of herbal medicine through biomedical science often makes the product more expensive and undermines the ease of access to traditional medicine. The ratio of traditional practitioners to members of the population against doctors, in countries of traditional practitioners, is much lower than the high ratio of doctors. The support of traditional practitioners by government would make economical sense in countries with traditional medicinal practitioners (Tsey 1997:1074).

GROUPS UNDERSTANDING AND COGNITIVE CONSENSUS

An obvious requirement for policy implementation is that the implementers involved or the group should have similarities in their understanding of the policy. Policy implementers are often from diverse functional backgrounds, multiple departments, and organisational levels. It is, therefore, not strange that individuals often enter a group setting with different perspectives, viewpoints, and interpretation of the issues involved. All these differences interfere with the ability of the group to view issues in similar ways. The interaction between group members result in negotiations to reach consensus on how key issues should be interpreted (Mohammed 2001:408). Cognitive consensus refers to the similarities of understanding among group members and the agreement on how key issues should be defined. It is interesting to note that a kind of group cognition is emerging through a number of empirical studies (Mohammed 2001:409). Group level framing is not new, but there is still not one common set of concepts on the phenomenon.

Implementers are confronted by unstructured, ambiguous, complex, and dynamic issues simultaneously. Implementers must, therefore, engage in a process of sense making or interpretation. Cognitive group frames refer to the manner by which individuals interpret or assign meaning to issues. Table 2 summarises many of the ways that individual-level frames have been conceptualised and operationalised in the literature (Mohammed 2001:409). The differences between implementers as a group will probably lead to conflict. The negotiation between group members and the eventual solution is often the glue that holds an organisation together.

Cognitive group consensus represents collective representations and differs from individual interpretations because it is socially constructed and is based on agreement. Cognitive group consensus is also reflected in Table 2 and implies a sharing of assumptions, categories, content domains, dimensions, and/or causal maps that aid implementers to assign meaning to issues (Mohammed 2001:411).

The sharing of cognitive frames among implementers can be conceptualised on a continuum of sharing. On the one end of the continuum many incongruent interpretations

Table 2: Expanded conceptualisation of frames

Frame	Meaning
Assumption	Foundation of a person's concept of the world; set of <i>givens</i> involved in the perceptions of a situation
Categories	Analytical labels used to described issues
Content domain	Substantive labels in interpretation
Dimension	Specific elements of strategic issues (e.g. urgency, feasibility, controllability, and uncertainty)
Causal schemes/maps	Graphic representation of the causal links between concepts: include both the content and structure of individuals' belief system

Source: Mohammed 2001:412

coexist and frames are idiosyncratic. In the middle of the continuum, frames are widely held. On the opposite end of the continuum, there is a perfect convergence and every implementer has an identical frame of reference. Both extreme ends of the continuum are considered dysfunctional (Mohammed 2001:411). Equilibrium of group cognition involves both unity and diversity.

Policy implementation can be effected by two main types of influence. The first type of influence is the informational influence or internalisation of an individual's private beliefs. A second type of influence is normative influence or compliance to yield results without accompanying changes in attitudes. The first type of influence which represents true changes of internal belief represents a deeper level of acceptance than normative influence. In practice one might find variations in implementers' level of internalisation (Mohammed 2001:414).

POLICY UNDERSTANDING BY IMPLENTERS AND USERS

The cognitive and normative frames provide a specific understanding of the policy. In this section two examples, one in science and another one in E-Government will underscore the importance of understanding of public policy by both the implementers and users.

In the first case Bovine Spongiform Encephalopathy (BSE) was first reported in the UK in 1986. The Government made is a notifiable disease two years later in 1988. Originally it was the belief that BSE, cattle disease, was caused by diseased sheep remains that were being used by cattle as feed. On investigation a Committee of Government consequently

recommended a ban on the use of certain types of offal (e.g.brains, spinal cords) as cattle feed. It was stressed by the Committee that BSE was harmless to humans, but it also warned that the consequences would be very serious (Jacob *et al.*, 2000:305). In March 1996 the UK Government announced that there might be a link between BSE and 10 reported cases of Creutzfeldt-Jakob Disease (CJD). At the same time the Ministry of Agriculture, Fishing and Food's state their position that it is safe eating beef and drinking milk of British cows. This triggered public hysteria and saw beef sales in Britain, and continental Europe, took a sharp dive downward (Jacob *et al.*, 2000:305). The whole BSE crisis was a public policy crisis. It took quite a while to restore the public trust again. In short, policy-makers have difficulty in understanding the science behind the BSE disease (Jacob *et al.*, 2000:308).

The second case of understanding of policy is explained by the complexity of electronic government. E-Government often promises the outcome of better government including improved quality services, cost savings, wider participation, or more effective policies and programmes. At the same time it is interesting to note that Heeks (2003) estimates the failures of E-Government projects may be as high as 85%. Most of E-Government literature is from the supply side perspective and not much from the demand side. The digital divide research focuses therefore more on the demand side of E-Government. Any E-Government policy should therefore recognise the important parallels between the digital divide and E-Government opportunities. E-Government policy should keep in mind the supply as well as the demand side in understanding of each phenomenon. The absence of a clear cut definition of either E-Government or digital divide hampers a proper understanding of both phenomena. The parallels between E-Government and digital divide research are important to understanding how policies, society, organisations, and information technologies come together and behave (Helbig 2008:92). E-Government research has shown that the take-up of electronic government services and participation via the internet has not produced the results that were expected. A variety of factors have contributed to this situation, but for the purpose of this article it is critical to note that end-user needs and understanding were crucial. It is clear that the users of E-Government are not a homogeneous group (Helbig 2000:93). Users exhibit different degrees of Information Technology literacy skills. Public policies need to consider the understanding of the user and more importantly the differences between groups and users. The danger exists when government idealised about online services without understanding the types of users.

CONCLUSION

Multiple factors influence policy implementation and successful service delivery. In this article the focus was on cognitive skills and how these frames can influence the implementation process. Skills is a topical issue when it comes to implementation, but the question is really what exactly is meant by skills and further, what constitutes cognitive and normative skills? The challenge policy managers often face is in communication with stakeholders about complex and dynamic processes of

implementation. Furthermore, the aim is to reduce the complexity of the system, but still explain the key elements that governs policy interventions. This article is no exception in this regard. While the article highlights the key elements of cognitive and normative frames, it also emphasises the understanding of a complex process of implementation.

The article emphasises the individual's cognitive and normative frames and how these relate to attitudes, beliefs and personal interest. It is no wonder then that implementers are often guilty of selectively attending to policies that are consistent with their own interest and agendas. The sense-making dimensions of the implementation process necessitate the study of the cognitive frames of implementers.

The world view of implementers plays an important role in policy implementation. The article underscores how the cognitive and normative frames are formed and how these eventually contribute to a particular policy outcome. The different elements of cognitive and normative frames like metaphysical principles, specific principles, forms of action and instruments overlap and eventually produce coherent paradigmatic frames. The interaction between actors in the policy process brings the management of conflict to the surface.

Human sense-making is a factor that can easily lead to failure in policy implementation. This is purely not because there is no implementation, but perhaps of the particular conceptualising of the policy. In South Africa for instance, with eleven official languages, there is an additional challenge for interpretation of policies in terms of linguistic differences of the same policy. Prior knowledge is always a major contributing factor to differences in interpretation. It can therefore be deduced that new policies requiring fundamental change are extremely difficult to implement. A flaw in this regard is when a new policy is mistakenly seen as something familiar. The explicit value of the implementer's learning experiences cannot be underestimated.

The assistance of outside experts can further complicate the policy process. Differences of the understanding by the experts, designers, organisations, implementers and users of the policy can all contribute to the confusion about the particular policy. The whole concept of understanding is crucial for the smooth implementation of a policy. In the article three different cases are provided to support the concept of different interpretation of a policy and the consequent difficulty with the implementation.

The case of Western biomedicine and the integration with traditional practitioners into one policy is a challenge for understanding in most countries with traditional medicinal practitioners. A further case was the BSE cattle disease in the UK that illustrates how difficult it could be for policy-makers to understand science. The last case emphasises the gap between the focus on the demand and supply of E-Government respectively. The understanding of all actors in the E-Government case is a classical example of the divide in communities and at the same time a huge contemporary challenge in the age of information technology.

Policy and policy implementation require groups of implementers and therefore implies cognitive consensus in the policy process important. The degree of conflict and/or consensus between actors determines the extent of success of the policy. It is clear that cognitive and normative frames and the subsequent interpretation of policy

implementation are mainly determined by a social context. This requires that future research about cognitive and normative frames in the policy implementation process should investigate and diagnose social contexts in order to understand the particular outcomes of the policies.

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