

INSTITUTIONS AND INSTITUTIONAL DESIGN

Erling Berge

Part XIII: Policy and design II

NTNU, Trondheim
Fall 2003

20-11-2003

© Erling Berge 2003

1

Literature

Chapters 6 in

Ostrom, Elinor 1990 “**Governing the Commons. The Evolution of Institutions for Collective Action**”, Cambridge, Cambridge University Press,

Chapters 2 and 6 in

Goodin, Robert E (ed.) 1996 “**The Theory of Institutional Design**”, Cambridge, Cambridge University Press

Modelling for policy purposes

- Models used out of range
- Models used metaphorically
- Models of static structures

- We need models saying what individuals can do to shape or reshape the situations within which they must make decisions and bear the consequences of actions taken on a day-to-day basis

Ostrom 1990 Ch 6

Models out of range(special cases of the more general problem):

- Hardin's tragedy of the commons
- The prisoners dilemma game
- Olson's logic of collective action

Metaphorical use by

- Policy analysts and public officials
- Fads and fashions among academics

The real world is not in equilibrium, models must allow for actors changing the rules governing their behaviour

Some problems

- Credible commitment and
- Mutual monitoring

Are solved in a mutually reinforcing fashion

- By commitment contingent on others doing the same
- By seeing and experiencing a monitoring system tailored to local circumstances and local perceptions of justice
- Supply of institutions
 - Is a problem poorly understood

Ostrom (1990:185) ”The explanation also draws heavily on the assumptions made in chapter 2 about fallible, norm-adopting individuals who pursue contingent strategies in complex and uncertain environments. Such individuals can be expected to make contingent commitments to follow rules that

- Define a set of appropriators who are authorized to use a CPR (design principle 1),
- Relate to specific attributes of the CPR and the community of appropriators using the CPR (design principle 2),
- Are designed, atleast in part, by local appropriators (design principle 3)
- Are monitored by individuals accountable to local appropriators (design principle 4), and
- Are sanctioned using graduated punishments (design principle 5).”

Design principles (Ch 3, p.90)

1. Clearly defined boundaries.
2. Congruence between appropriation and provision rules and local conditions.
3. Collective-choice arrangements
4. Monitoring
5. Graduated sanctions
6. Conflict resolution mechanism
7. Minimal recognition of rights to organise
8. Nested enterprises (for CPR's that are parts of larger systems)

Current theory says it is increasingly difficult to achieve collective beneficial action with increase in

- The total number of decision makers
- The number of participants minimally necessary to achieve the collective benefit
- The discount rate in use
- Dissimilarity of interests, and
- The absence of participants with substantial leadership experience or other assets

Even if these variables explain many cases there are many anomalies, like on the one hand, the large number of decision makers in the Spanish huerta irrigation works of Valencia, Murcia, Orihuela and Alicante, and on the other hand, the small number of fishermen in Mawelle, Sri Lanka.

•The importance of organising in nested enterprises has to be recognized

Ostrom(1990:190) “Success in starting small-scale initial institutions enables a group of individuals to build on the social capital thus created to solve larger problems with larger and more complex institutional arrangements.”

•The importance of external agencies for the structure of motivation has to be recognized

Ostrom(1990:190) “To distinguish between the successful and unsuccessful instances of self-organisation to solve CPR-problems, one must take account of how the strategies of external actors affect the costs and benefits of CPR appropriators.”

•The information and transformation costs have to be included in the theory.

Hence, new theory must

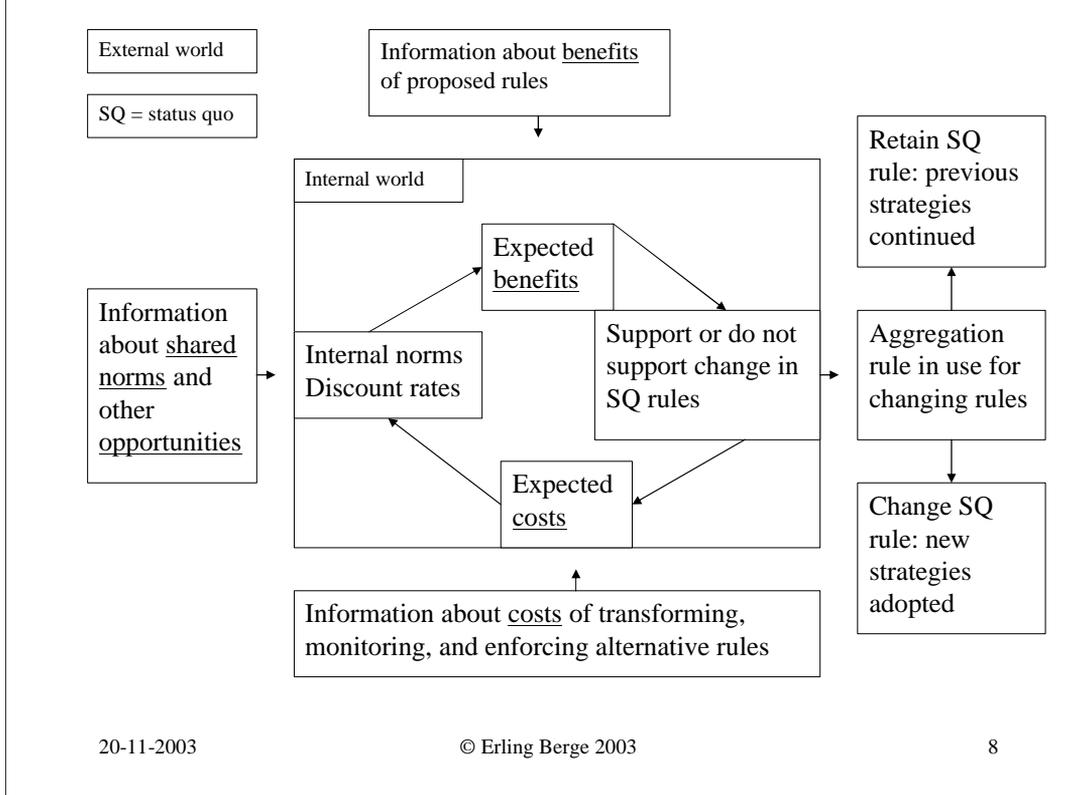
- reflect the incremental, self-transforming nature of institutional change,
- include the importance of characteristics of external political regimes in an analysis of how internal variables affect levels of collective provision of rules, and
- include information and transaction costs

Ostrom(1990:190) “ Current theories of collective action do not stress the process of accretion of institutional capital. Thus, one problem in using them as foundations for policy analysis is that they do not focus on the incremental self-transformations that frequently are involved in the process of supplying institutions. Learning is an incremental self-transforming process.”

Frameworks supply questions

- "Consequently, instead of building a specific model of institutional supply, I shall develop a framework to summarize the lessons to be learned from examining successful and unsuccessful efforts by CPR appropriators to change their institutions."
(Ostrom 1990:192)

Ostrom (1990:192) "From a framework , one derives questions that need to be asked to clarify the structure of a situation and the incentives facing individuals."



20-11-2003

© Erling Berge 2003

8

(Ostrom 1990:193-194) Constitutional choice is affecting operational decisions indirectly by limiting the powers and procedures used in collective choice. Collective choice is affecting operational choice directly. Both is referred to as institutional choice.

Figure 6.1 above. This model can be used to predict behaviour if

1. Accurate summary measures exist of each summary variable (benefits, costs, shared norms, and opportunities).
2. Individuals completely and accurately translate information about net benefits and net costs into expected benefits and expected costs.
3. Individuals behave in a straightforward, rather than strategic, manner.

However, few field settings are characterized by these conditions. Usually one needs to study how situational variables affect the summary variables.

Benefits: (page 197)

1. Number of appropriators
2. Size of CPR
3. Temporal and spatial variability of resource units
4. Current condition of CPR
5. Market conditions for resource units
6. Amount and type of conflict
7. Availability of data about (1) through (6)
8. Status quo rules in use
9. Proposed rules

Ostrom(1990:197-198) “Thus, whether or not an individual perceives any benefits to be derived from a change in rules will depend on (1) the objective conditions of the CPR, (2) the type of information that the current institutional arrangements generate and make available to individuals, and (3) the rules proposed as alternatives. It should now be clear that whether or not benefits can be obtained by changing rules is not a “fact” that simply exists in the world to be used by anyone – appropriator, analyst, or public officials – who wants to improve welfare. Information about benefits must be searched for, organised, and analysed.”

Transformation costs: (page 199)

Ex ante net costs of transforming SQ rules

1. Number of decision makers
2. Heterogeneity of interests
3. Rules in use for changing rules
4. Skills and assets of leaders
5. Proposed rules
6. Past strategies of appropriators
7. Autonomy to change rules

Past institutional decisions of local appropriators

Requirements set by external authorities

Ostrom (1990:202) “Thus, the past exerts its influence on institutional choices in several ways. Current operational rules – the status quo rules - are the results of past decisions. Status quo operational rules always protect some individuals and expose others. A proposed change in these rules must be supported by a set of individuals large enough to have the authority to change them, given status quo collective choice or constitutional choice rules for changing the rules. In almost all procedures used in a given collective choice or constitutional choice arena, the status quo rules will have a privileged position. Past institutional choices open up some paths and foreclose others to future development.”

Monitoring and enforcement costs (page 203)

Information about ex post costs of monitoring and enforcement

1. Size and structure of CPR
2. Exclusion technology
3. Appropriation technology
4. Marketing arrangement
5. Proposed rules
6. Legitimacy of rules in use

The costs of monitoring a new set of rules for the use of a CPR resource:

What kind of mapping of the resource is necessary?

What kind of information will be produced routinely as part of the production/ appropriation process?

What kind of meetings/ assemblies will or can easily happen during the appropriation process?

What kind of relation exists between local rules and external (state) authorities?

These are the “raw materials” from which low cost monitoring can be constructed, constrained by the kind of harm which may follow rule breaking

The role of shared norms and discount rates

Situational variables

- Appropriators live near CPR
- Appropriators involved in many situations together
- Information made available to appropriators about opportunities that exist elsewhere

There is a difference between internalised norms where monitoring and sanctioning is an internal psychological process, and shared norms, where monitoring and sanctioning involves other persons from the group sharing the norm. (Ostrom 1990:206; refers to Coleman 1987a “Externalities and norms in a linear system, of action”, Working Paper, Department of sociology, University of Chicago; also see Coleman 1990, Foundations of social theory)

Judging complex processes

Instead of maximizing profits, judgements of uncertain costs and benefits is a better approach.

Known biases in the choice of new rules

- Losses are felt to be more important than gains
- Immediate up-front costs more important than future costs
- Frequency dependent probabilities are difficult to estimate, recent events are given unreasonable weight

Ostrom (1990:207) "One can predict that in a highly competitive environment, those who do not search for and select alternative rules that can enhance net benefits will lose out to those who are successful in adopting better rules." But a theory that predicts the situation at equilibrium is inadequate to explaining the process: which actors will fail? And which actors will survive?

Also learning from others experimenting with new rules are important, but often difficult if one reasons by analogy. The Mojave experienced problems applying LA experiences (Raymond, West, Central basins) at a larger scale. Also the distributional consequences of proposed rules are important for the support of change.

Predicting institutional change

Change comes **easier** if most appropriators

1. share a common judgement that they will be harmed if they do not adopt an alternative rule
2. will be affected in similar ways by the proposed rule changes
3. highly value the continuation activities from this CPR; in other words, they have low discount rates
4. face relatively low information, transformation and enforcement costs
5. share generalised norms of reciprocity and trust that can be used as initial social capital, and if
6. the group of appropriating from the CPR is relatively small and stable

Predicting change: Ostrom (1990:211) “If it ain’t broke, don’t fix it!” applies to institutional capital as well as physical capital.” The fact that people can devise rules to govern their CPR does not mean that they will. Rules use remote locations and a disinterested state as zero conditions to judge the role of external authorities. When the location is more central, the interaction with other aspects of the society will most certainly affect the prospects of change

External governments are crucial

- The role of external governments are crucial. But not by imposing central governance and control. Their positive role is by providing incentives for the local development of solutions. By providing low cost information, arenas for institutional choice, and agencies for low cost conflict resolution.

The problems of a central governor is basically to

- Avoid perverse incentives among appropriators
- Fashion rules adapted to local conditions

There is not general theory explaining how this can be done even by the most honest and well wishing bureaucrats. And if the regime is corrupt, some remote group of appropriators may be able to live by their own system. But the most probable outcome is the anarchic situation of the irrigators of Kirindi Oya.

Assumptions for design

1. Behaviour of agents are sensitive to available opportunities and incentives
2. Opportunities and incentives varies and can be varied by design to affect aggregate behaviour
3. There are some accepted criteria for what one wants to achieve by the design intervention

The next 4 slides are based on Philip Pettit “Institutional Design and Rational Choice”, pp.54-89 in Goodin (ed.) 1996

Two basic ways of intervening

- Designing sanctions to alter opportunities and incentives
 - Sanctions are positive as well as negative
- Designing filters to create or eliminate agents or opportunities
 - Removing or awarding powers to agents
 - Creating or removing opportunities

Two types of goals for design

- Prevent harm –vs.– promote good
- Controlling powerful, dangerous agents (private agents) –vs.– controlling agents in which we have put our trust (public agents: police, military, judiciary, politicians)

Design strategy 1: deviance control

- Deviance-centred strategies aim at making compliance the self-interested alternative for everyone, also the pure egoists (aka “the knaves strategy”)

Problems:

- “Quis custodiet custodes”
- May create knaves of non-knaves

Perhaps it may do more harm than good?

20-11-2003

© Erling Berge 2003

18

Do not contribute to the creation of knaves from non-knaves (switching from non-egocentric thinking to egocentric) by

1. Switching on the red light (alerting to the possibility of significant egocentric motives)
2. Driving out or marginalizing non-egocentric thought
3. Signalling demoralizing attitudes on the part of authorities
4. Signalling new options and opportunities
5. Signalling that others probably have been knaves, taking you for a ride
6. Adverse selection to roles where self-seeking behaviour is unwanted

Design strategy 2: complier reinforcement

- The complier-centred strategy aim at reinforcement of the behaviour of the non-egocentric thinking persons
 - Screening before sanctioning
 - Sanctioning in deliberate support of non-egocentric thinking
 - Structure sanctions to cope with occasional knaves. Sanctions should be motivationally effective

Petit (1996:86) "Is there any way of putting institutional motivators in place that won't disturb the habits of the majority? John Braithwaite has elaborated an approach to sanctioning that gives us an answer to this question. The idea is that sanctions, in particular penalties, can be devised in an escalating hierarchy."

(In the list of references we find Braithwaite 1989 and Braithwaite and Petite 1990. In Ostrom 1990 there is no reference to Braithwaite.)