

# **Institutions, Institutional Change and Economic Performance**

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## Literature:

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## My interests in this are

- **In general** further the understanding of
  - Historical development, and
  - Economic and Social development
- **In particular** the understanding of how institutions shape the use of resources and the path of economic development

## What is an institution?

- Broadly speaking: An institution comprise all that make you feel that what you do is the right thing to do. Meaning:
  - You have the right to do it. What you do is **legitimate**.
  - If anyone prevents you from doing it you feel wronged. Preventing you from doing it is illegitimate.
- The sources of such feelings are many.

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...but basically they come from

- Other peoples opinions
- Informal rules of behaviour
- Formally defined rules of behaviour
- Specific interpretations of rules as laid out by courts or bureaucracies

This is quite similar to **the logic of appropriateness** (March and Olsen 1984)

# Preliminary concepts

- **Structure vs. Agency**
- **System of action** including
  - Resources/ assets
  - Appropriators/ possessors
  - Technology (incl. organisation)
- **Public goods**
- **Collective action**
- **Non-actor systems/** customary law / stateless societies
- **Actor-systems/** law-maker /state

## Reading North 1990:

- Douglass C. North provides a condensed survey of
  - The nature of formal institutions,
  - Their relations to political processes and
  - Their path dependence

# INSTITUTIONS

- Rules of the game
- Humanly devised constraints
- Providing structure for human interactions (political, economic and social)
  
- The cost of detecting rule violations, and the enactment of punishments are essential parts of all institutions.

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North(1990:3). “Institutions are the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction.” ... “Institutional change shapes the way societies evolve through time and hence is the key to understanding historical change.”

Institutions reduce risk by providing structure to everyday life. They limit the choice set for all kinds of human interaction.

Institutions may be informal or formal. Usually they are both. They range from the constitution of a country to the burial customs. They may be deliberately created or they may grow slowly from everyday activities as in common law.

Soccer as an institution: rules are both written and unwritten (e.g. not deliberately injuring a member of the opposing team). But sometimes rules are violated. Violations are punished. But detection of violations is often difficult (costly).

The cost of detection of rule violations, and the enactment of punishments are essential parts of all institutions.

The goal of a game is to win. To win a team needs to organise itself, invest in skills, and complete the game. To what degree do unwritten “gentlemanly” rules constrain the activities? The organisation of the players of the game illustrates a crucial distinction: between organisation and institutions. Modelling the evolution of organisation conditional on the rules of the game is something else than modelling the evolution of the rules themselves.

# Organisations

- Games: rules and players
  - Institutions – organisations
- Organisations are groups of people bound by some common purpose to achieve objectives

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If institutions are the rules of the game, organisations are the players of the game.

Organisations include:

Political bodies (political parties, the parliament, a municipal council, a regulatory agency)

Economic bodies (firms, trade unions, family farms, cooperatives)

Social bodies (churches, clubs, athletic associations)

Educational bodies (schools, universities, vocational training centres)

They are groups of people bound by some common purpose to achieve objectives. What kinds of organisations are created, and how they evolve, are fundamentally affected by the institutional framework. Over time their collective activities shape the development of the institutions. Therefore the interaction of organisations and institutions are important for the study of institutions.

Institutions affect the costs of exchange and production, and hence the performance of an economy. Institutions and technology determine the transaction and transformation costs.

## Institutions evolve by incremental change in e.g.

- Conventions
- Codes of conduct
- Norms of behaviour
- Contracts
- Common law
- Statute law

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Institutions provide stability, but are nonetheless constantly changing.

Conventions, Codes of conduct, Norms of behaviour, Contracts, Common law, Statute law are all evolving – sometimes slow and glacial, sometimes (almost) revolutionary. Changes at the margin may be a consequence of change in formal rules, informal constraints, as well as the kind and effectiveness of enforcement.

Formal rules may change overnight, but informal constraints evolve slowly with the culture, rather impervious to formal politics.

These culturally defined constraints are the key to path dependence of historical change.

Path dependent trajectories of development.

How does the past affect the future?

How does incremental change in institutions affect the choice set at any moment in time?

## ECONOMIC PERFORMANCE

- How is it possible to explain or understand the various developmental trajectories of e.g. North American and Latin American countries?
- Why is there no convergence of economic systems in comparisons of developing and developed countries?

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1973 North and Thomas (The Rise of the Western World): institutions determine economic performance and changes in relative prices create incentives for institutional change. Efficiency is the key determinant.

1981 North (Structure and Change in Economic History) Efficiency is abandoned. In history rulers have devised property rights in their own interest and transaction costs resulted in typically inefficient property rights prevailing. But why do not rulers of inefficient economies emulate more efficient economies?

1990 North (this book): The answer hinges on the difference between institutions and organisations and the interaction between them shaping the direction of institutional change.

## Institutions determine the opportunities of a society.

- Organisations are created to take advantage of those opportunities.
- As organisations evolve they change the institutions. The path of change is determined by
  - A lock-in between institutions and the populations of organisations evolved to exploit the institutions
  - Feedback processes from perception of and reaction to changes in the opportunity set.

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North(1990:7) “The resultant path of institutional change is shaped by (1) the lock-in that comes from the symbiotic relationship between institutions and organisations that have evolved as consequence of the incentive structure provided by those institutions. And (2) the feedback process by which human beings perceive and react to changes in the opportunity set.

The increasing returns characteristics of an institutional matrix that produces lock-in come from the dependence of the resultant organisations on that institutional framework and the consequent network externalities that arise.”

The mutual dependence of organisations and institutions produces an institutional matrix or organisational network with increasing returns to scale and network externalities Profitability of some or most organisations will depend on particular characteristics of the institutional matrix. If entrepreneurs in business or politics perceive that they could do better with different institutional rules, they will devote time and resources to alter the institutional framework and thus contribute incrementally to institutional change.

The process of perception is crucial. Actors have incomplete information and interpret it by means of mental constructs that may deviate more or less from how the true world works. The result often is persistently inefficient paths.

Transaction costs in political and economic markets make for inefficient

property rights. The imperfect subjective models used by players in attempt to understand the problems they confront can lead to persistence of inefficiency.

**Case 1: USA in the 19<sup>th</sup> century**

- The constitution and the North West Ordinance
- Norms of behaviour rewarding hard work
- Political organisations (congress, local bodies, family farms, merchant houses, shipping firms)
- Economic growth led to demand for education, which led to public education.
- Changes in the organisational population and characteristics of organisations led to changes in institutions both formal and informal. ( e.g. changing attitudes to slavery, the role of women, and temperance)
- Not all changes were in the direction of more efficient institutions. Changes usually will open opportunities both for productive activities and for activities reducing productivity.
- On balance: the institutional framework persistently rewarded productive activities.

**Case 2: Some developing country today or most states in known history**

- Economic opportunities are also here a mixed bag, but on balance they favour activities that
  - Promote redistribution rather than production
  - Create monopolies rather than competitive conditions
  - Restrict opportunities rather than expand them
  - Rarely induce investment in education
- Organisations will become more efficient, but at redistribution rather than production
- These organisations will induce institutional changes making the economy even less efficient

## From theory to data

- North 1990 can be read as a theoretical foundation for De Soto's pamphlet on "Why Capitalism Triumphs in the West and Fails Everywhere Else"

**North** 1990 p 67 refers to de Soto 1989 "The Other Path" on transaction costs in third world countries and how the lack of enforcement leads to a third sector outside the law with mostly self-enforcing transactions.

**Eggertsson**, Thráinn 1990 "Economic Behaviour and Institutions", Cambridge, Cambridge University Press, p273-275 refers to the same study in addition to Litan, Robert E. and Schuck, Peter H. 1986 "Regulatory Reform in the Third World: The Case of Peru", Yale Journal of Regulation 4(No.1, fall)

## Reading de Soto 2000:

- Hernando de Soto provides empirical observations of the dysfunctional consequences of
  - Illegitimate and insecure property rights
  - Poorly enforced laws
  - Barriers to entry of markets
  - Monopolistic restrictions
- Resulting in permanent underdevelopment

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The high transaction costs are leading to firms with

- Short time horizons
- Little fixed capital
- Small scale operation

## 5 mysteries of capital

- Missing Information
- Capital
- Political Awareness
- Missing Lessons of US History
- Legal Failure

## Missing Information

- On the continuous creation of wealth in the large urban sprawls of the developing world
- On the extraordinary inapplicability of existing legislation, currently creating an extra-legal sector comprising some 50-85% of the population

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Investigations in the Philippines, Peru, Haiti, and Egypt leads to a conservative estimate of a total of 9.34 trillion USD in dead (unregistered) capital in the extralegal sector.

Procedure to formalize informal urban property in **Philippines**: 168 steps, 13-25 years

Procedure to obtain legal authorisation to build a house on state-owned land in **Peru**: 207 steps, 6 years, 11 months.

Procedure to obtain a sales contract following a 5 year lease contract in **Haiti**: 111 steps, 4112 days (>11 years)

Procedure to gain access to desert land for construction purposes and to register these property rights in **Egypt**: 6-14 years

# Capital

- Is created by the formal property system of a society. It
  - Fixes the economic potential of assets
  - Integrates dispersed information
  - Makes people accountable
  - Makes assets fungible
  - Networks people
  - Protects transactions

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deSoto(2000:63): “Property, then, is not mere paper but a mediating device that captures and stores most of the stuff required to make a market economy run. Property seeds the system by making people accountable and assets fungible, by tracking transactions, and so providing all the mechanisms required for the monetary and banking system to work and for investment to function. The connection between capital and money runs through property.

## Political Awareness

- People move away from agriculture and small scale society to urban life and large scale society: a new industrial revolution is brewing
- Law has not kept pace and the result is a growing extralegal sector
- The problem is not new. The West experienced it, and solved it.
- How long will it take for governments to recognise it?

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deSoto(2000:87): “This extralegal sector is a grey area that has a long frontier with the legal world, a place where individuals take refuge when the cost of obeying the law outweighs the benefits.”

## Missing Lessons of US history

- Squatting was common
- Pre-emption: squatters improving land could recover its value or buy the land before it was offered in public sale
- Gradually the extralegal sector was recognized and integrated in to the formal system

## Legal Failure (1)

- Misconceptions of current policy
  - People go to the extralegal sector to avoid paying taxes
  - Extralegal real estate exist because of inadequate surveying and mapping
  - Mandatory law is sufficient, compliance costs irrelevant
  - Existing extralegal social contracts can be ignored

## Legal Failure (2)

- It is possible to change people's conventions on how they can hold their assets, both legal and extralegal without high-level political leadership

deSoto(2000:157): “The crucial thing to understand is that property is not a physical thing that can be photographed or mapped. Property is not a primary quality *of* assets but the legal expression of an economically meaningful consensus *about* assets. Law is the instrument that fixes and realizes capital. In the West, the law is less concerned with representing physical reality of buildings or real estate than with providing a process or rules that will allow society to extract potential surplus value from those assets. Property is not the assets themselves but a consensus between people as to how those assets should be held, used, and exchanged.”

## Legitimation

- Law must build on existing social contracts
- The extralegal sector has developed their own law, their own understanding of what property is and what they can do with it
- Unless land reform builds on this, it will fail miserably as the many failed attempts at land reform already should show us

## Making better formal law

- Study the various extralegal sectors
- Extract the principles used by the people
- Compare it to existing law
- Adjust formal law and insert the principles used by people
- The result is much nearer a self-enforcing system of law

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deSoto(2000:187): “Where have all the lawyers been? Why haven’t they taken a hard look at the law and order that their own people produce? The truth is that lawyers in these countries are generally too busy studying Western law and adapting. They have been taught that local practices are not genuine law but a romantic area of study best left to folklorists. But if lawyers want to play a role in creating good laws, they must step out of their law libraries into the extralegal sector, which is the only source of the information they need to build a truly legitimate formal legal system.”

## The political challenge

- Changing status quo of property rights is a major political task requiring
  - Taking the perspective of the poor
  - Co-opt the elite
  - Deal with the legal and technical bureaucrats guarding the current system

deSoto(2000:204): “People do not want to get inside the formal property system because they are eager to be mapped, recorded, or taxed; they will join the system when its economic benefits are obvious to them and when they are certain their rights will continue to be protected.”

## De Soto (2000) insists

- that property rights must conform to the rights people believe they have
- to write good law the government must study people's law: the law people use in day to day dealings with each other

People's law is a social reality

It is created by the people for the people

## To understand institutions we need two important theses

- From Searle 1995: Important parts of institutions – even the most formal - exist only in the minds of people
- From Douglas 1987: The strongest institutions exist **only** in the minds of people, and
  - Usually at a subconscious level,
  - Or disguised as “nature”

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From Searle:

Institutions are social facts

They exist if and only if the relevant group of people agree that they exist

Formal institutions are founded on “background capabilities”

Background capabilities can be seen as a system of informal institutions, or more general, as culture

From Douglas:

Knowledge and moral are collective (shared) goods and standards of behaviour

Individuals in crisis do not make life and death decisions on their own. Our institutions decides.

True solidarity is possible to the extent that individuals share the categories of their thought

Searle starts from linguistics and an epistemology and works towards and understanding of how social institutions are created

Douglas starts from social interactions and works towards and understanding of how a language and an epistemology are created by institutions

## Collective Action: Assuming the collective exist

- Searle: from collective intentionality to the origin of institutional facts: “X counts as Y in C”
- Douglas: thought collective, thought world
  - Institutions as “natural things”
  - Providing categories for thinking
  - Defending the “natural” order of the universe by feelings of justice and injustice

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If there exist some collective structure affecting our behaviour, then collective action does not seem so strange.

Searle and Douglas both think there is something “collective”. Searle assumes a primitive he calls collective intentionality. Douglas postulates a collective thought style and thought world.

Searle tries to reconstruct what institutional facts means and how they come into being given the collective intentionality.

Douglas tries to understand how the collective ever can get started and survive in a world of scarce goods and selfish instincts. She knows that it does but cannot quite fathom how it got started. Once started she also investigates how it survives by channelling our attention, providing categories for thinking and ideas about justice to control our feelings. The basic informal institutions survive by masking themselves as nature, and by the feelings of justice and injustice they generate if the natural order of the universe is threatened

## Collective Action: Assuming only selfish motives

- How is collective action possible without Leviathan to force cooperation onto us?
- New Institutional Economics (NIE) has a problem in explaining collective action when moral values and ideologies are unstable. NIE needs to internalise ideology.
- Ostrom explains how the collective action problem is different in different situations

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The assumption that there exist something “collective” which affects our behaviour the same way for all, has always seemed extremely suspicious to most social scientists, and particularly to economists. The challenge has been to show that collective action is possible, not only with “Leviathan” present, but also without. The problem has been known as long as people have speculated about the conditions of cooperation and conflict. The most famous of the early statements is perhaps Hobbes’ (1651) “Leviathan”: Only the all-powerful state will be able to restrain the selfish activities of people struggling to appropriate scarce resources.

Most recent studies of collective action trace their origin to Mancur Olson’s (1965) “The Logic of Collective Action”. Since then a veritable flood of studies have added small steps towards an understanding that maybe collective action is possible also without a “Leviathan” to force it on people. Eggertsson (1990) provides a summary of this development up to about 1990.

Elinor Ostrom (1990) in her “Governing the Commons” is one of those who have taken our understanding of what the problem consists of a significant step onwards.

## Three influential models

1. The tragedy of the commons,
2. The prisoners dilemma, and
3. The logic of collective action

Ostrom's book (1990:2) "is an effort to (1) critique the foundations of policy analysis as applied to many natural resources, (2) present empirical examples of successful and unsuccessful efforts to govern and manage such resources, and (3) begin the effort to develop better intellectual tools to understand the capabilities and limitations of self-governing institutions for regulating many types of resources"

## The unsolved problem

- How do we govern the exploitation of natural resources?
  - Some recommend the state
  - Some recommend privatisation
  - Some communities have successfully managed scarce resources for a long time without either a state or private ownership, relying on other types of institutions: **self-governance**

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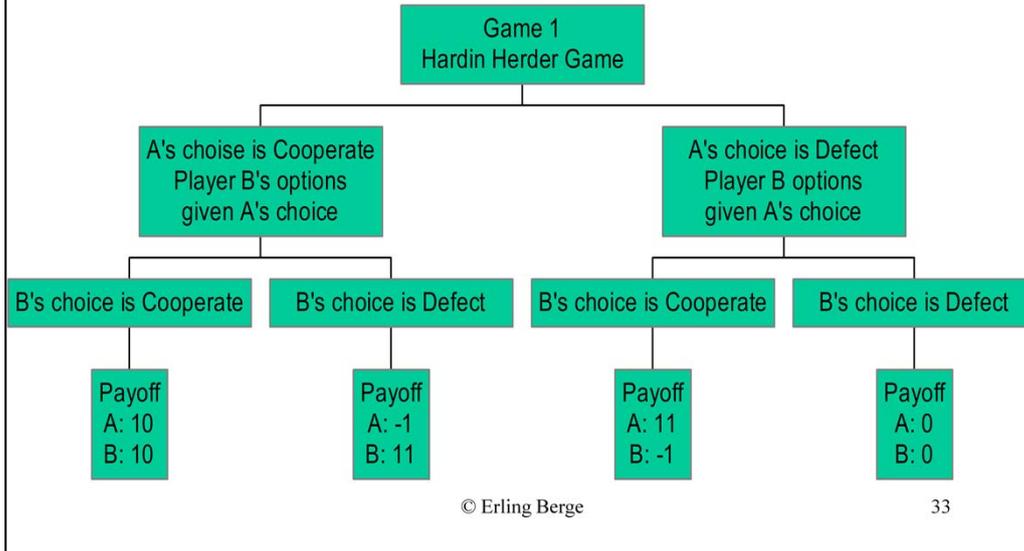
The tragedy of the commons as metaphor. It contains suggestions of two kinds of solution: state control or private property. Ostrom introduces self-governance.

## The state as solution

- The tragedy of the commons: old news
  - Hardin 1968, Aristotle, Hobbes 1651, Foster Lloyd 1833, Scott Gordon 1954, and Dales 1968 all describe the same problem
- The commons as a PD game

The tragedy of the commons is often analyzed as a prisoners dilemma game.

# Hardin's herder game (Game 1)



## The prisoners dilemma:

Both players has a dominant strategy: defect

But the equilibrium is not Pareto-optimal

Both prefer (cooperate, cooperate) to (defect, defect)

The paradox: individually rational strategies leads to a collectively irrational result

## Interest groups cooperating

- Mancur Olson did not quite believe interest groups (IG) would cooperate as assumed
  - If the collective good is available to all once it is produced, rational actors have little incentive to contribute voluntarily.
  - (but he believed it occurs in small groups and keeps the door open for intermediate size groups: Douglas 1986 ch 2-3 disagrees fundamentally)

“The logic of collective action”

## Tragedy, Prisoner, Collective Action

- These are powerful models, but also dangerous models if used metaphorically in policy settings
- Model rules do not resemble real world setting in general, only in some particular cases
- Core concept: free riders, commitment, supply of institutions (rules of the game), monitoring

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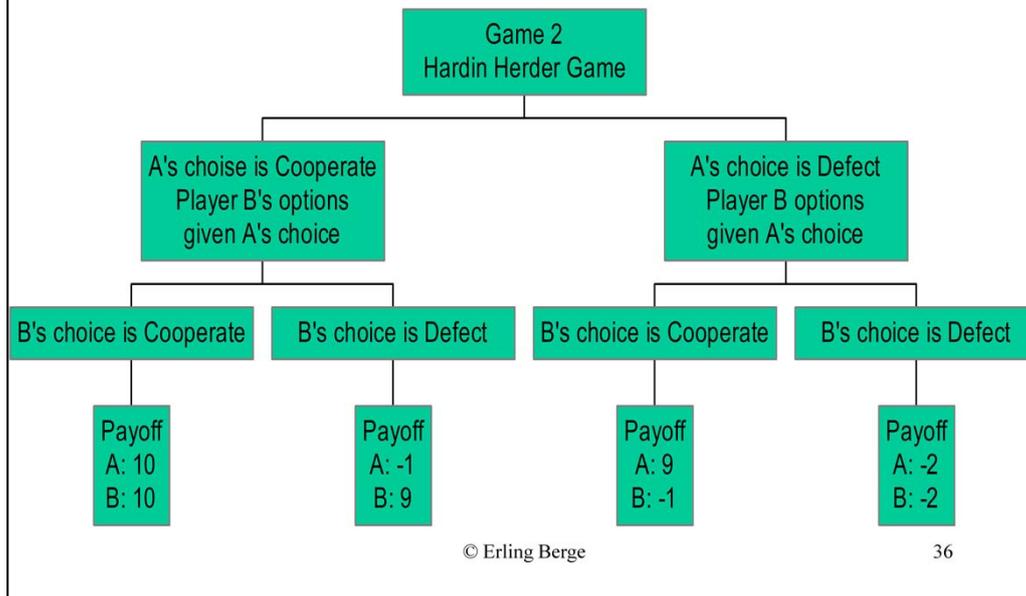
The three models: 1)The tragedy of the commons, 2)The prisoners dilemma, and 3) The logic of collective action

Ostrom(1990:8) “By referring to natural settings as “tragedies of the commons”, “collective action problems”, “prisoner’s dilemmas”, “open-access resources”, or even “common property resources”, the observer frequently wishes to invoke an image of helpless individuals caught in an inexorable process of destroying their own resources.”

The conclusion is usually either that “Leviathan” is the only way out, to save people from themselves, or that the resources have to be privatised to internalise all various costs of resource usage.

We can study the centralised control in modified Hardin herder game.

## Centralised management (game 2)



### **Prisoners dilemma is solved by a central power imposing sanctions:**

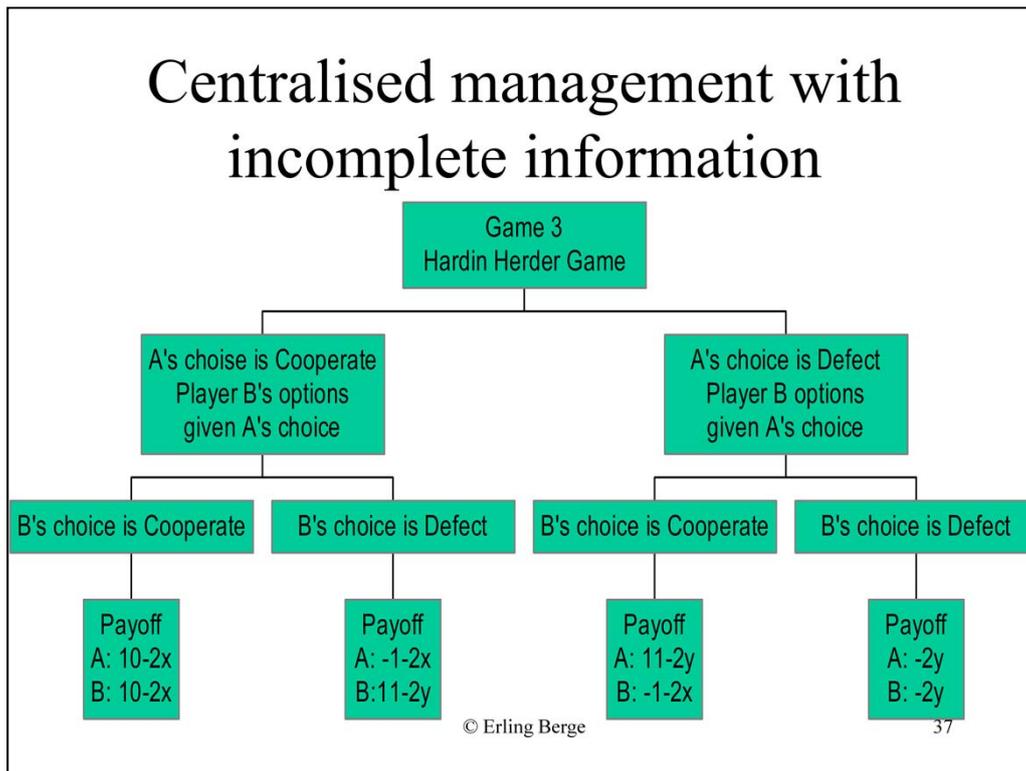
The Leviathan imposes here a penalty of 2 profit units on all players that defect.

The optimal strategy is now (cooperate, cooperate)

Ostrom(1990:10) "The optimal equilibrium strategy achieved by following the advice to centralize control, however, is based on assumptions concerning the accuracy of information, monitoring capabilities, sanctioning reliability, and zero costs of administration."

What if the central agency has less than complete information? For example about herder strategies?

# Centralised management with incomplete information



## Prisoners dilemma returns with a vengeance because the central power do not have perfect information

X = probability of punishing cooperative behaviour (erroneous response)

(1-x) = probability of not punishing cooperative behaviour

Y = probability of punishing defectors

(1-Y) = probability of not punishing defectors (erroneous response)

With X=0 and Y=1 Game 2 is a special case of game 3

If the agency punishes correctly with probability .7 we are again in a PD game and with an even lower equilibrium than in the unregulated game: (-1.6, -1.6). To avoid pushing the herders into a PD game again the central agency must punish correctly with a probability greater than .75.

Ostrom(1990:22) "Asserting that central regulation is necessary tells us nothing about the way a central agency should be constituted, what authority it should have, how the limits on its authority should be maintained, how it will obtain information, or how its agents should be selected, motivated to do their work, and have their performances monitored and rewarded or sanctioned."

If  $10-2x > 11-2y$  we are not in the PD game. This implies  $-2x > 1-2y$  or  $y > x + 0.5$

If  $y=0.7$  (probability of punishing defectors) we must have  $x < 0.2$

(probability of punishing cooperation) to stay out of the PD game

## Privatisation

- Dividing land into individually owned plots is not costless
  - Fencing costs
  - Erratic rains may necessitate insurance schemes and/ or a market in grazing rights
- Privatisation of non-stationary resources like fish or water is still an unsolved task

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Propositions of privatisation or state control as the “only” solution to the commons dilemma cannot both be right.

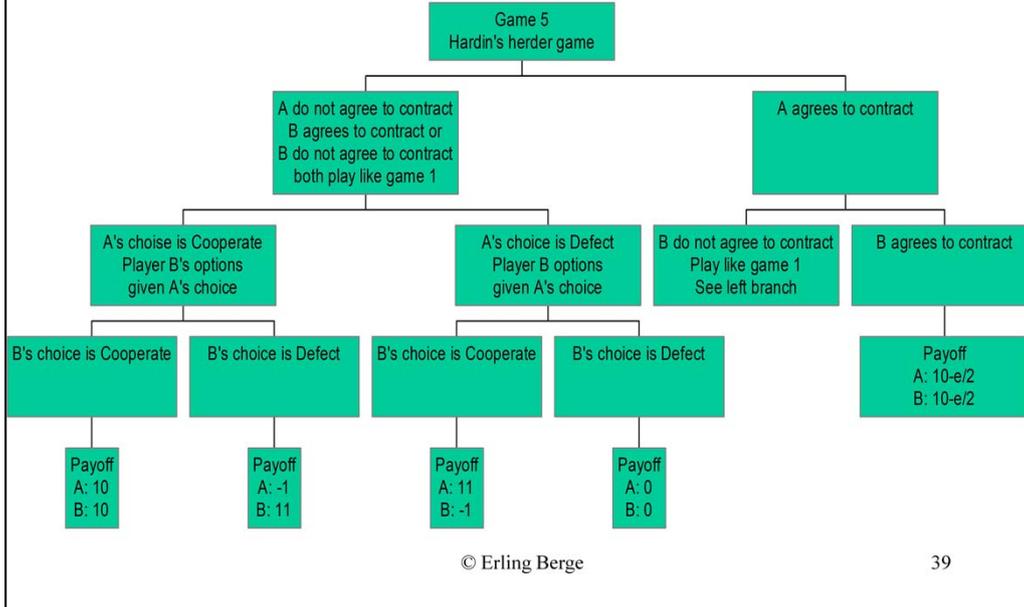
Ostrom(1990:14) “Instead of presuming that optimal institutional solutions can be designed easily and imposed at low cost by external authorities, I argue that “getting the institutions rights” is a difficult , time-consuming, conflict-invoking process.”

Ostrom(1990:14)“instead of presuming that individuals sharing a commons are inevitably caught in a trap from which they cannot escape, I argue that the capacity of individuals to extricate themselves from various types of dilemma situations varies from situation to situation.”

Ostrom(1990:14)“Instead of basing policy on the presumption that the individuals involved are helpless, I wish to learn more from the experience of individuals in field settings. Why have some efforts to solve the commons problems failed, while others have succeeded?”

Ostrom(1990:22) “An assertion that the imposition of private property rights is necessary tells us nothing about how that bundle of rights is to be defined, how the various attributes of the goods involved will be measured, who will pay for the costs of excluding non-owners from access, how conflicts over rights will be adjudicated, or how the residual interests of rights holders in the resource system itself will be organised.”

## An alternative solution



**SELFGOVERNANCE IS ONE ALTERNATIVE SOLUTION:** A negotiated contract between the herders.

The cost of enforcement is  $e$ . Equal sharing is the only feasible solution.

If both do not agree they are sure that the worst they can do is getting the (0,0) payoff from the original game.

By contributing  $e$  they can now for example hire an external, private, enforcer, or they can do it themselves.

An empirical example: The Alanya inshore fisheries in Turkey. (see page 19-21 in Ostrom 1990)

## Self-organisation and self-governance

- “The central question in this study is how a group of principals who are in an interdependent situation can organise and govern themselves to obtain continuing joint benefit when all face the temptation to free ride, shirk, or otherwise act opportunistically.” (Ostrom 1990, p.29)
- It is still a theoretical puzzle.

## Rational appropriators

- Complex and uncertain situations
  - Choice of action depends on how the individual learns about, views, and weighs the benefits and costs of actions and their perceived linkages to outcomes that also involve a mixture of benefits and costs.
- Discount rates
- Norms of behaviour

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Ostrom (1990:35) “Norms of behaviour reflects valuations that individuals place on actions or strategies in and of themselves, not as they are connected to immediate consequences.”

Opportunism is defined as “self-interest with guile”.

Ostrom(1990:36) “In every group there will be individuals who will ignore norms and act opportunistically when given a chance. There are also situations in which the potential benefits will be so high that even strongly committed individuals will break norms. Consequently, the adoption of norms of behaviour will not reduce opportunistic behaviour to zero. Opportunistic behaviour is a possibility that must be dealt with by all appropriators trying to solve CPR problems.”

Ostrom(1990:36) “Because CPR settings extend over time, and individuals adopt internal norms, it is possible for individuals to utilize contingent strategies, not only independent strategies, in relating to one another.”

## Interdependence (1)

- Changing from independent action to coordinated action
  - The firm
    - Entrepreneur recognize interdependence and negotiate contracts for coordinated behaviour (interdependent production function) or
    - Entrepreneur recognize savings from large transaction costs in contacts negotiated in the market for independent producers

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Ostrom(1990:41) “In both the theory of the firm and the theory of the state, the burden of organizing collective action is undertaken by one individual, whose returns are directly related to the surplus generated. Both involve an outsider taking primary responsibility for supplying the needed changes in institutional rules to coordinate activities.”

Because both the ruler and the entrepreneur keep the residual of the profits from the organised activities, they can make credible commitments to punish those breaking the agreed rules. But to detect non-compliance they need to institute monitoring.

## Interdependence (2)

### – The state

- Ruler recognize need for protection and sell protection by instituting a monopoly on power. His subjects save substantially on individual protection and will be willing to be taxed for a portion of the savings.
- The monopoly on force can be used to coerce people into further organised behaviour. If the organisation is tailored to the “needs of the people” they will prosper and the tax base increases

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Comments on coordination and interdependence:

A key problem in the origin of institutions is the development of language. Once language exist there are common, shared categories of thought, and Mary Douglas' first cycle can start.

As the number of institutions increase they create a meshwork in de Landa's sense, probably with meshwork externalities in the form of generalized abilities for creating new institutions. But this works only in so far as language is able to keep up on the integration of various institutions

### **A meshwork defines a self sustaining dynamics**

Catalyst's lock-in property makes it “mesh” with its key target changing the target's properties to become receptive to a third substance. The product of this reaction may serve as catalyst in another process producing the catalyst for the first.

**Auto-catalytic loops** link a series of mutually stimulating pairs into a structure that reproduces as a whole

Catalyst C1 mesh with substance A making the reaction AB produce catalyst C2

Catalyst C2 mesh with substance C making the reaction CD produce catalyst C1

The word meshwork is taken from Stuart Kauffman (1990) "Lectures in Complex Systems" eds. Lynn Nadel and Daniel Stein, Redwood City, CA, Addison-Wesley, 1991

Language in legislation: reveal values, structure activities,

## Theory of self-organisation (1)

- Problems of **Open access CPR**: rent dissipation
- Problems of **Limited access CPR**: incentives depends on rules governing
  - Quantity,
  - Timing,
  - Location, and
  - Technology of appropriation. And how these are
    - Monitored and Enforced.

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In limited access situations, however, there an incentive to over-invest in any input factor not constrained under current rules sometimes leading to the second order tragedy.

## Theory of self-organisation (2)

### Unsolved problems

- Supply of institutions
  - First order dilemma: A set of rules will satisfy the “demand” for coordinated behaviour. But how do you provide rules ? They are also a public good (Second order dilemma).
- Credible commitments
  - Without resort to the external enforcer. How?

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Ostrom(1990:44) “a self-organised group must solve the commitment problem without an external enforcer. They have to motivate themselves (or their agents) to monitor activities and be willing to impose sanctions to keep performance high.”

Ostrom(1990:46) “1. Appropriators in CPR situations face a variety of appropriation and provision problems whose structures vary from one setting to another, depending on the values of underlying parameters.

2. Appropriators must switch back and forth across arenas and levels of analysis.”

## Theory of self-organisation (3)

### Unsolved problems

- Monitoring
  - Mutual monitoring and sanctioning is a collective action problem. Sanctioning is almost always costly to the punisher. Benefits accrue to all. Why no free ride?
- The problem of self-organisation unravels from both ends. Yet, it has been done!

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A second type of appropriation problem occurs in relation to **assignment of spatial and temporal access** to the resource.

Ostrom(1990:49) “The particular rules used to regulate appropriation will affect monitoring and policing costs and the type of strategic behaviour that will occur between appropriators and monitors (the detection/ deterrence game).”

The provision problems are related to the construction and maintenance of the resource.

Without solving the appropriation problem the provision (maintenance) problem is unsolvable.

With appropriation problems solved it is similar to providing a continuing public good.

Also among the provision problems is the requirement that withdrawal rates do not affect the future ability of the resource system to produce resource units.

## Neo-institutional economics

- Studies how alternative social rights and organisations affect behaviour, resource allocation and equilibrium outcomes
- Studies the variation of organization in various types of economic activity
- Studies the logic of political and social rules governing production and exchange

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NIE preserves the “core” of the economics research paradigm by insisting on

- Stable preferences
- Rational choice, and
- Equilibria.

But NIE do change the elements of the protective belt of the economics research paradigm:

- The specification of the situational constraints the agents face
- The specification of the type of information the agents have about their situation
- The specification of the type of interaction that is studied

In practice this basically means introduction of transaction and information costs

## Transaction and information costs

Implies

- **Optimality** (Pareto/ Kaldor-Hicks) is **no longer an interesting** criterion
- **Efficiency** is **no longer an interesting** criterion
- Assignment of **property rights is paramount**, introducing economic organisation, and making political institutions a key to understanding economic growth

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Optimality is the result by definition in neo-classical models, based on full information and zero transaction costs. These optimal outcomes are called efficient. Empirical outcomes deviating from the model outcome are called inefficient. In the neo-classical model there is no rationale for contractual arrangements such as the firm, or even money. It is not at all clear how economic outcomes in a world of full information can be used as a yardstick of efficiency in real-world situations. (Eggertsson 1990:20-22) .

## Transaction costs

- “The fundamental idea of transaction costs is that they consist of the cost of arranging a contract ex ante and monitoring and enforcing it ex post, as opposed to production costs, which are the costs of executing a contract.” (Matthew 1986)
- When information is costly, many exchanges give rise to transaction costs

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Costly activities resulting in transaction costs include: (Eggertsson 1990:15)

1. “The search for information about the distribution of price and quality of commodities and labour inputs, and the search for potential buyers and sellers and for relevant information about their behaviour and circumstances.
2. The bargaining that is needed to find the true position of buyers and sellers when prices are endogenous.
3. The making of contracts.
4. The monitoring of contractual partners to see whether they abide by the terms of the contract.
5. The enforcement of a contract and the collection of damages when partners fail to observe their contractual obligations.
6. The protection of property rights against third-party encroachment – for example, protection against pirates or even against the government in case of illegitimate trade.”

Technological change may give better measurements, but it also gives more complex products. An educated guess is that technological change has increased transaction costs in modern economies.

Money may be an essential device for lowering transaction costs. If so, its absence in Walrasian general equilibrium models is understandable: there are no transaction costs in those.

## Measurement

- Measurement cost will affect systematically the structure of contracts and the organisation of economic institutions.
- State regulations are often directed at lowering measurement costs, not only redistribution. Sometimes the goal is better measurement of the tax base: redistribution and growth are not necessarily opposites.

## NIE extends the economic approach

1. Investigating the equilibrium outcomes resulting from constraints posed by property rights and transaction costs
2. Trying to endogenize the organization of markets and the structure of contacts
3. Seeing social and political institutions as outcomes of exchange between individual agents. Competition for survival among institutions leads to equilibrium institutions.

Eggertsson (1990:30 note 39) “North(1981) argues that a successful theory of institutional change will require not only a theory of the state and a theory of demographic change but also a theory of ideological behaviour and a theory of technical change. So far there has been limited success in endogenizing some of these factors.”

## Property rights

- Use rights
- Income rights
- Alienation rights

Social norms may lower substantially

- Costs of exclusion
  - Costs of enforcement
- Private property
  - State property or communal property
  - Common property or open access

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Eggertsson(1990:33) “We refer to the rights of individuals to use resources as property rights. A system of property rights is a “method of assigning to particular individuals the ‘authority’ to select, for specific goods, any use from an unprohibited class of uses” (Alchian 1965)”

Property rights may be **attenuated** (that is regulations by the state may reduce the legitimate options of use)

Property rights may be poorly **delineated** (many problems calling for attenuation may rather be seen as poorly delineated rights)

Property rights may be partitioned ( e.g. various persons owning different aspects of land based resource)

# The theory of agency

- Agency is established when a principal delegates some right to an agent bound by a contract to represent the principal's interest in return for some compensation
  - Asymmetric information
  - Shirking or opportunistic behaviour
  - Monitoring or measuring performance
  - Technology of monitoring
  - Bonding
  - Moral hazard
  - Adverse selection

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The total cost of agency is the costs of monitoring plus the loss due to residual shirking. But NB! these costs are measured against the neoclassical nirvana model.

**Asymmetric information**                      the agent knows more about what happens

**Shirking or opportunistic behaviour** leads to the need for **Monitoring or measuring performance**

Depends on the nature of risk and preferences of the parties

Technology of monitoring and Bonding

May be important to the type of contract and organisation used

**Moral hazard**

measurement by proxy gives rise to temptation to shirk

**Adverse selection**

occurs when different principals use different measures. The one with the least accurate measure will get the persons with the lowest qualities.

## Contracts

- The structure of contracts depends on the legal system, social customs, and technical attributes of assets involved in the exchange
- Introduction of new contractual forms may be compared to technical innovations in production
- The firm as a nexus of contracts. Alternatives:
  - Direct contracting consumer and input owners
  - Self-governance of input owners (bypassing the entrepreneur)

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Not that organisations are designed not only to reduce shirking and opportunistic behaviour, but also to facilitate coordination. Coordination is also a costly activity because of scarce information.

## Competition among contractual arrangements

- Contractual form that give rise to positive profits survive, other forms disappear
- Instead of modelling rational individuals and trace the consequences of their choices, we should start by assuming complete uncertainty and irrational behaviour and then add elements of foresight and motivation (Alchian 1950)

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Armen Alchian (1950) “Uncertainty, Evolution and Economic Theory”

The filter of competition will ensure that only profitable forms of contract will survive.

In such a world of uncertainty “rational behaviour may call for modes of behaviour rather than adjustments in terms of the marginal conditions of optimization in traditional economics.” (Eggertsson 1990:56)

Still risk seeking entrepreneurs may make bold experiments. If they succeed they are admired.

## Theory of the state

- The state sets and enforces the fundamental rules that govern exchange
- The power of small groups in democratic polities: **interest** weighed by consequences, multiplied by **power**, and **governed by information and transaction costs**
- The logic of collective action: free riding

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1. A community with no common rules, no legislative or judicial bodies, no enforcement agency
  1. (implies private individual resources for protection)
2. A society with common rules defining exclusive rights, a lawmaking body, courts of law, but no police force or army, hence private enforcement of law
  1. (Iceland's commonwealth 930-1262)
3. A society where the state sets the rules, arbitrates in disputes, and enforces exclusive rights
  1. Principal-agent relations (state-subject). The contract can be analysed in view of transaction costs.
  2. The power of the sovereign is limited by agency costs and constrained by competition. The problems of creating a structure of property rights that maximize the tax base can be understood in view of large transaction costs.

## Equilibrium political institutions

- Condorcet's paradox (Arrow's impossibility theorem) is empirically suspect
- Voting and decision making in legislative assemblies are controlled by elaborate procedures that yield equilibrium outcomes
  - Structure induced equilibrium (Shepsle and Weingast 1981): committees with their own jurisdictions and agenda setting power

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But the making of such institutional structures is also an exercise in institutional choice. How was the rules chosen, why isn't they changed more often? One reason may be uncertainty about the total fallout. It may threaten the power of those who now are in control.

Exchange among politicians have high transaction costs and have to be self-enforcing. Repeated plays, reputations, depend on stable rules.

Uncertainty about the outcomes that a new regime will produce implies that a given structure may ex ante be associated with a set of structure induced equilibrium points.

Shepsle thinks this uncertainty is enough to explain the stability of institutions and the barriers to continuous institutional change.

## Problems in NIE

- Rational choice models do not work when ideological beliefs are unstable.
- Therefore, NIE needs a theory of ideology.
- Other problems include
  - Strategic interaction
  - Non-economic motives

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Eggertsson (1990:79) “The structure of property rights is determined by the state and reflects the preferences and constraints of those who control the state. All choices made by individuals and groups who control the state are constrained by the requirement to maintain power, but the ultimate impact of institutional change on power relationships is often shrouded in uncertainty. Therefore, institutional change that in traditional neoclassical models appear to be consistent with wealth maximization are often seen as disadvantageous by the power elite because the changes are likely to raise the cost of agency or even threaten an outright loss of control.”

## The neo-classical assumptions

NIE preserves the “core” of the economics research paradigm by insisting on

- Stable preferences
- Rational choice, and
- Equilibriums

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NIE preserves the “core” of the economics research paradigm by insisting on

- Stable preferences
- Rational choice, and
- Equilibriums.

North (1990:19) “The behavioral assumptions that economists use do not imply that everybody’s behavior is consistent with rational choice. But they do rest fundamentally on the assumption that competitive forces will see that those who behave in a rational manner, as described above, will survive, and those who do not will fail; and therefore in an evolutionary, competitive situation (one that employs the basic assumption of all neoclassical economics of scarcity and competition), the behavior that will be continuously observed will be that of people who have acted according to such standards.”

NIE change the elements of the protective belt of the economics research paradigm:

- The specification of the situational constraints the agents face
- The specification of the type of information the agents have about their situation
- The specification of the type of interaction that is studied

In practice this basically means introduction of transaction and information costs

## Core question: why are there so many forms of organisation?

- The core problem of economic organisations is economizing.
- Behavioural assumptions
  - o Contracting man (limited to the set of feasible contracts)
  - o Bounded rationality (intendedly rational, but only limitedly so)
  - o Cognitive competence is limited
  - o Self-interest seeking with guile (i.e. in disclosure of information); opportunism, moral hazard, agency problems

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How are Williamson's behavioural assumptions different from North's?

1. North emphasise the core of the neoclassical assumptions, but adds that transacting is costly.
2. North emphasis that we need to understand motivation and perception
  1. How motivation is shaped by institutions (self-imposed standards of conduct), altruism, wealth maximising behaviour
  2. How perception and reality may differ, and the degree of uncertainty this may introduce

## Implications

- Incomplete contracting (feasible contract) is the consequence of bounded rationality and opportunism\*
- Contract as promise implies risk of breaking it
- Central (state) governance versus private ordering (legal rules for everything versus contract as framework for resolving disputes)

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\*Selection through competition can affect only real behaviour, hence "feasible contracts" become important.

It would seem that the environment of Williamson is what Eggertsson calls the laissez-faire economy of Demsetz: that is the neo-classical model with transaction costs added.

He is focused on contracts and how systems of contracts gives a diversity of organisational forms.

He does not discuss the interrelations of organisational development and institutional change.

## Operationalization of transaction costs

- Technology of transacting
  - Comparing costs of planning, adapting, and monitoring task completion under alternative governance structures
- Main dimensions of transactions
  - Frequency of occurrence
  - Degree and type of uncertainty
  - Asset specificity/ sunk costs (can asset be used in alternative schemes?)

# Asset specificity

- Asset specificity takes many forms:
  - one is personal knowledge (the problem of unique or imperfectly standardized goods)
- Implies complex ex ante incentive responses as well as ex post governance structure responses
- Six types:
  - Site specificity
  - Physical asset specificity (e.g. sunk cost in equipment)
  - Human asset specificity
  - Dedicated assets (customer specific investment)
  - Brand name capital
  - Temporal specificity

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Site specificity: e.g. chains of production, logistics:  
economising on transportation and materials

Physical asset specificity e.g. sunk cost in equipment: dies to  
produce specific components

Human asset specificity e.g. on the job training, learning by  
doing

Dedicated assets e.g. customer specific investments

Brand name capital

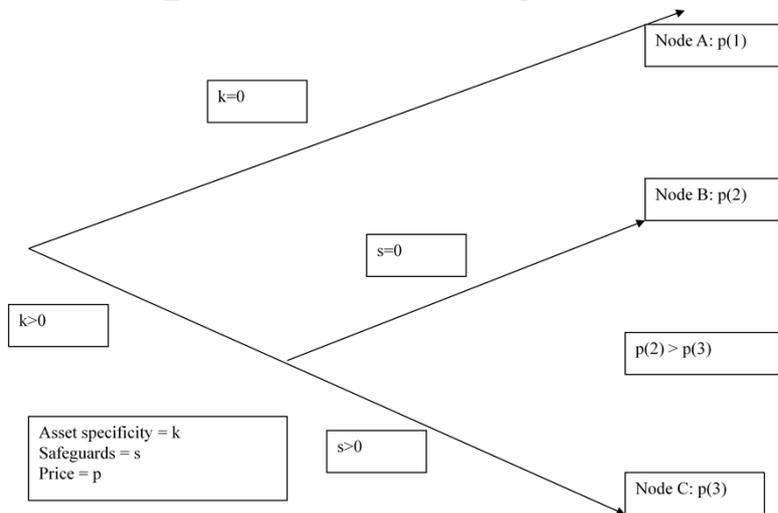
Temporal specificity

# Uncertainty

- Statistical risks (random acts of nature, unpredictable shifts in consumer's preferences)
- Idiosyncratic trading hazards (lack of communication, strategic non-disclosure, distortions)
- The fundamental transformation
  - Asset specific products implies that market competition becomes distorted. After a first round of large number bidding, the identity of contractors will matter. Specialised investments by the supplier cannot be redeployed to alternative uses, and a buyer will have to induce alternative suppliers to invest in specialised equipment.

Asset specificity is a fundamental problem in governments contracting out some kinds of services like medical and old age care.

## A simple contracting scheme



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Amount of transaction specific technology =  $k$ , Contractual governances/ safeguards =  $s$

$K=0$  needs no safeguards. The world of competition obtains.

$K>0$  involves significant investments specific to the transaction

$k>0$  and  $s=0$  unstable,

may go to A:  $k>0$  technology replaced by  $k=0$  technology, or to C by introducing safeguards

$K>0$  and  $s>0$  implies safeguards against investment in technology ( $k>0$ ) being expropriated

Williamson (1996:63) “More generally, it is important to study contracting in its entirety. Both the ex ante terms and the manner in which contracts are thereafter executed vary with the investment characteristics and the associated governance structures within which transactions are embedded.”

Illustration: the use of franchises for brand names, problem “quality shading”. The system benefits from policing of quality. The solution is some kind of hostage: investment in brand specific assets which will be lost upon “cheating”

## A simple typology of contracts

- Competitive markets
  - (1) Suppliers with general purpose technology, no protective governance, price P1
- Bilateral trade
  - (2) Suppliers with specialised technology, no protective governance, price P2
  - (3) Suppliers with special purpose technology, protective governance, price P3 ( $p_3 < P_2$ )

The situation (2) will be unstable: either technology will change or safeguards will be developed.

## The problem of measurement

- All measurement problems are rooted in either
  - 1) information asymmetries, or
  - 2) costliness of providing an arbiter with the true information condition in case of disputes between opportunistic parties with equal information
- Information problems with different origin give different organisational responses.

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Asset specificity is one branch

Measurement problems another branch of transaction cost economics

According to this it is not the cost of measurement per se,  
but the differential access to information or the opportunism of the parties.

# Vertical Integration

## Market:

1. Promote high powered incentives and restrain bureaucratic distortions
2. Aggregate demand to take advantage of economies of scale and scope

## Internal organisation

1. Access to distinctive governance instruments

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The Paradigm Problem: **Vertical Integration** (starts with Coase 1937: The Nature of the Firm)

Comparative transaction costs explains the firm.

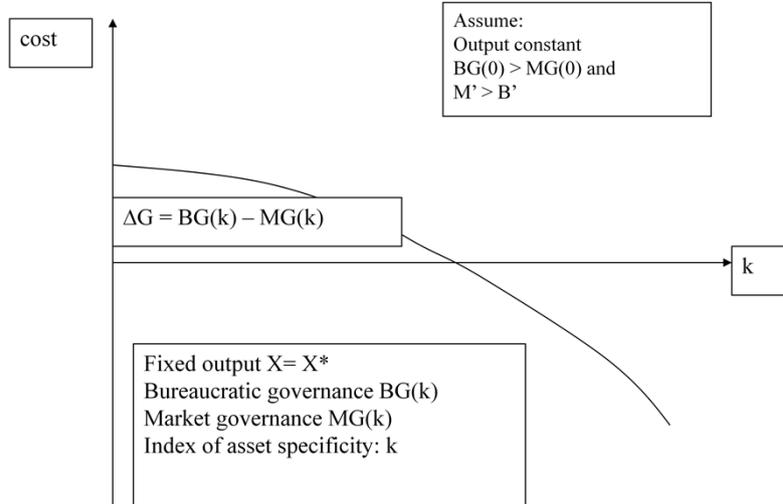
Main alternative to vertical integration:

**Incomplete short-term contracts.** These have problems if

1. Efficient supply requires special purpose equipment with long life
2. The winner of the original contract acquires a cost advantage (unique location or learning (such as task specific labour skills )

One important specification lies in **asset specificity**.

# A heuristic model



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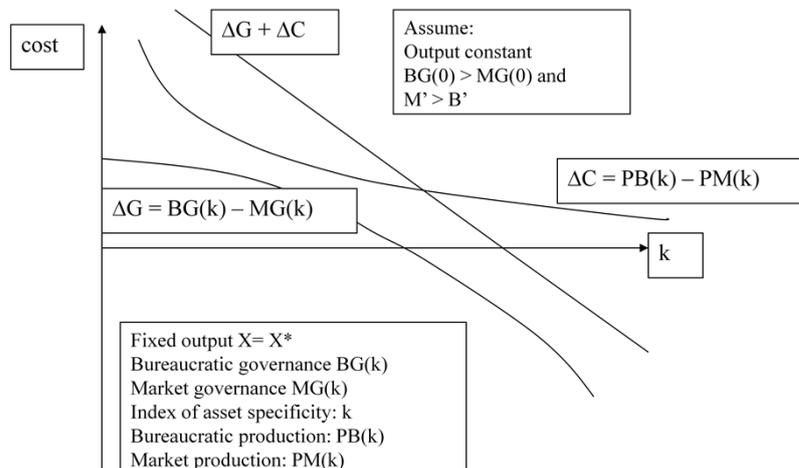
Fixed output  $X = X^*$   
Bureaucratic governance  $BG(k)$   
Market governance  $MG(k)$   
Index of asset specificity:  $k$

Assuming economies of scale and scope are negligible and

$BG(0) > MG(0)$  - because of the incentive and bureaucratic effects

$MG' > BG'$  - because of the comparative disability of markets in adaptability respects

# Production cost differences



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Fixed output  $X = X^*$

Bureaucratic governance  $BG(k)$

Market governance  $MG(k)$

Index of asset specificity:  $k$

Bureaucratic production:  $PB(k)$

Market production:  $PM(k)$

1. Market procurement has advantages in both scale and economy and governance respects where asset specificity is slight.
2. Internal organisation enjoys the advantage where optimal asset specificity is substantial. Not only does the market realize little aggregation economy benefits, but market governance, because of maladaptation problems that arise when assets are highly specific, is hazardous.
3. Only small cost differences appear for intermediate degrees of optimal asset specificity. Historical accidents may determine the type of governance found.
4. Only when contracting difficulties arise will vertical integration be interesting ( $PB(k) > PM(k)$ ).
5. Larger firms will be more integrated into components than smaller, ceteris paribus. M-forms more than U-forms.

## Other Applications (1)

- Non-standard Commercial Contracting
  - The hostage model for developing credible commitments. These deal with intertemporal contracting, uncertainty and investment in transaction specific assets.
- Over-searching ( a measurement problem)
  - Applied to diamond trading:

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The hostage model for developing credible commitments.

These deal with intertemporal contracting, uncertainty and investment in transaction specific assets.

Here reciprocal trading is discussed. (tie-break explanations, asset specificity).

**The release of hostage:** licensing “monopoly” products to other suppliers.

**Oversearching** ( a measurement problem) Applied to diamond trading:

all-or-none of a group of stones plus in-or-out of the trading (refusing a group of stones implies leaving the trade altogether). This encourages the parties to consider the dealing as a long-term relationship.

## Other Applications (2)

- Economics of the Family
  - Family firms (incentives, monitoring, altruism, and loyalty)
  - Career marriages (manager married to the firm, cohabitation of two people).
- Corporate Finance (debt or equity financing? Depends on asset specificity)
- The Modern Corporation (development of line/ staff structure, selective vertical integration, multi-divisional corporations)

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Family firms.

The advantages are incentives, monitoring, altruism, loyalty. The disadvantages are conflict spill-over, propensity to forgive inefficient/ slack behaviour, restrictions on available talents, possible diseconomies of small scale.

Career marriages (manager married to the firm, cohabitation of two people).

Discussing cohabitation with career as the single focus by means of typology above: career requiring special adaptations of cohabitation or not, if asset specificity obtain, how do you mitigate insecurity, or induce credible commitment?

## Public Policy Ramifications

- Regulation/ deregulation vs. monopoly supply (private unregulated, private regulated, government supply).
- Antitrust: the problem of vertical integration. Vertical integration is problematic only in highly concentrated industries where entry is impeded
- Stagflation: full flexibility of prices and wages will jeopardize contracts supported by durable investments in firm-specific assets.

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The evidence?

Lack of data is a problem. But not as severe as some maintain.

Regulation/ deregulation vs monopoly supply

**Both ex ante and ex post features of transactions need to be examined for impact on competitive practices.** Attributes of the good of service becomes salient: asset specificity, uncertainty

## Some conclusion from Williamson

- Future developments of “friction” studies:
  - 1) at least partly absorbed by “extended” neo-classical economics\*
  - 2) process values such as fairness will more easily be incorporated,
  - 3) expansion to new phenomena,
  - 4) a better theory of bureaucracy is needed,
  - 5) more empirical studies are coming each year (original paper published in 1989)

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\*See for example: James March 1992 “The War is Over, The Victors Have Lost”, *Journal of Public Administration Research and Theory* 3:225-231

2) Fairness and justice considerations converge when an extended view of contracting in its entirety is adopted

## More about the Firm: What is it?

- A set of long term contracts between input owners
- The firm replaces the product market with a factor market where price signals plays a minor role

But not in the unitary firm (the one-person firm) who

- Discover and produce commodities with valuable dimensions related to form, location, and time
- Is rewarded by profits

Eggertsson wants to summarize the various contributions developing out of Coase's 1937 article.

## Resource owners: coalitions

### Structure of contracts

- Merchant-coordinator (the putting-out system)
- Federated production mode (common locality)
- Inside contracting mode (capitalist manages external relations and common facility only)
- Hierarchical authority relations mode
- Various forms of common ownership

Market costs are replaced by agency costs

## Entrepreneurs and measurements

- With full information entrepreneurs are not needed
- The person whose contribution is most difficult to measure will assume the role of entrepreneur
- Information about entrepreneurial activities are asymmetrically distributed, giving rise to moral hazard problems best solved by the self-monitoring of the entrepreneur as residual claimant
- Shirking in coalitions solved by entrepreneur

## Specific investments

- Specialised investments cannot be transferred to other uses without loss
- Quasi-rents: difference between current earnings and best alternative use of factor
- Unique resources (finding substitutes is impossible or very costly) may make it possible to expropriate quasi-rents.
- Asymmetric information, measurement costs and opportunistic behaviour puts specialised investments at risk

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Pure rent, or economic rent, derives from unique, rare and valuable, qualities of nature. If sum of market values of individual team members is less than joint value, the difference is a quasi-rent.

Thus quasi-rents can be expropriated without causing the withdrawal of the factor from production.

E.g. If specific investment depend on some other factor, this can make it possible to expropriate the quasi-rent

Eggertsson(1990:172) “When it is costly to measure performance and prevent shirking or sabotage by cooperating inputs, the value of a specialised asset is at risk – even when the cooperating input has close substitute.”

Interdependence: resource A is unique to B and dependent on B, meaning B is unique to A.

Eggertsson(1990:173) “In general, a worker who invests in firm-specific human capital risks expropriation of the returns.”

One solution is the sharing the cost of firm-specific skill development.

Eggertsson(1990:174) “Using the terminology of Oliver Williamson, we could say that the sharing agreement is equivalent to exchanging hostages.”

## Protective measures

- Ownership of key interdependent assets. Strongly interdependent assets of a firm (except human capital) tend to be owned in common
- Long-term contracts designed to constrain the set of future options of input owners (contractual guaranties that quasi-rents will not be expropriated)

## Competing forms of organisation

Environment: cost minimization in a laissez-faire economy

- Economies of scale
- Asymmetrical information, measurement costs, agency costs depending on contracts
- Production dependent information distribution, monitoring and contract structure
- Size, information and coordination costs
- Assignment of risk bearing and residual claims
- Firm-specific human capital

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Differential treatment by state regulations, taxes, subsidies one important explanation

Profitability may also come from ownership of unique resources, rather than proper organisation of technology and contractual structure

## Types of organisations (1)

- Proprietorships: Owner-manager with horizon and diversification problems
- Partnerships: like proprietorships but less constrained by wealth, scale and risk, but with the problems of common ownership
- The closed corporation, non-manager-owners have close ties to manager-owners, limited liability lowers risk but it is still problematic, tendencies to under-investment

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Proprietorships constrained by the owner's wealth because of high transaction costs on external finances, not suited for firms where economies of large scale operations are high.

## Types of organisations (2)

- The open corporation with limited liability and separation of owners (risk taker specialists) and managers (management specialists) can maximize utility of owners and market value of firm
  - Agency costs between owners and managers, decision management and decision control
  - Coordination costs increase with size, changing from U-form to M-form

## Types of organisations (3)

- Financial mutual: customers are residual claimants, claims redeemable at a prespecified rule – a relatively efficient diffuse control mechanism provided assets are non-specific and can be liquidated at low cost
  - The interpretation of social clubs as a type of mutual sees their human capital as non-substitutable interdependent resources

## Types of organisations (4)

- Non-profit private organisations producing merit goods donators want to see others consume more of. There are no residual claims. Agency problems between donors and managers, alleviated by donor-presence on boards

## The logic of economic organisation

- Assume laissez-faire economy
- The relative economic advantage of alternative contractual forms is rooted in transaction costs
- Problems
  - Measuring quality
  - Enforcing labour contracts
  - Contracts in agriculture
  - Money

## Measurement of quality

- Search goods – quality by inspection
  - Variable qualities increase measurement costs
  - Relative cost distribution seller-buyer important
- Experience goods – quality by consumption
  - Sellers having little to gain by investing in reputation will not supply high quality exp.goods
  - Use of hostages (reputation, brand name, goodwill)
  - Investment in production specific human and physical capital
  - Use of warranties

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Eggertsson (1990:201) “The survival hypothesis implies that measurement will be undertaken by the party to exchange who has easy access to information and lower costs of measurement, provided incentives to cheat are curbed and trust established. The survival hypothesis also suggests that, other things being equal, quality will be measured at points in the process of production, exchange, and consumption where it can be done with least expenditure of resources.”

Ex.:

sale of apples from producer in sealed containers avoids excessive measurement

Limiting the choice of buyers may increase the net output for society

Depends on buyer believing the seller has no incentive to cheat, or that fellow buyers have no opportunity to pick unpriced quality ( by such practices as repeated dealings, production specific assets, third party regulations)

## Enforcing labour contracts

- Employment package (wage ++) and supply of labour are multidimensional (hours ++)

Ex: slavery –nonviable because of agency costs?

- The slave can buy his freedom by controlling his work effort
- Pain incentives (or prohibition of manumission) may make slaves more productive than freemen

Transaction costs reduce the advantage of slavery due to severe agency problems

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Wage + working condition, location of work,

Hours + intensity and quality of effort

Cost items:

Control of consumption for maximum productive efficiency

Control of feigned illness and self-inflicted damage

Sabotage of output

Preventing uprisings and flights

Fenoaltea:

Pain incentives work only in effort or land intensive productions using primitive technology

# Contracts in agriculture (1)

## The open field system (OFS)

- Costs of scattered strips and communal regulations? High TC of rearranging property rights do not explain
- McClosky: scattering as insurance
- Dahlman: missing market in grazing rights
- Fenoaltea: labour market too costly (OFS = family farming with scale economies)

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NIE assumes

\*low cost organisations tend to supersede high cost ones

\*when high cost organisations appear to persist we search for hidden benefits at unexpected margins or specific contractual constraints

\*if hidden benefits or contractual constraints do not explain, political constraints may do it

(footnote)

Eggertsson (1990:214) “Again, note that the concept of inefficiency becomes useless when the neoclassical model is taken to its logical conclusion and all costs and benefits are accounted for. The cost of collective action is a real, not imaginary, cost. If such costs block a structural change in property rights, it is not correct to talk about inefficient property rights. According to Pareto criteria, changes must be voluntary, and it follows logically from assumptions of the neoclassical model that all adjustments where benefits exceed costs will take place. Note that an involuntary change in property rights can lead to a very large increase in total net output for a community, but involuntary changes cannot be evaluated in terms of the neoclassical concept of efficiency and the Pareto criteria.”

## Contracts in agriculture (2)

### Sharecropping

- Risk: born by landlord under fixed wage, by tenant under fixed rent, shared by sharecropping. This can also be achieved in a mixed contract of rent and wage
- Enforcement costs a key element in choice of contract form
- The cost of contracting determines the marginal changes in contract mix (various TC's)

NB also labour contracts entail TC's, such as enforcement costs

## North Ch 4

- Measurement costs
  - Because of asymmetric information (adverse selection, moral hazard)
  - Plus enforcement costs = transaction costs
  - Explains why property rights are not perfectly specified
  - Enforcement: second party, or third party.

## North Ch 5 slide 1

- Informal constraints:
  - 1) extensions, elaborations and modifications of formal rules,
  - 2) socially sanctioned norms of behavior, and 3) internally enforced standards of conduct
- The same formal rules imposed on different societies give different outcomes
- Informal rules come from culture and language
- Primitive (stateless) society (not simple!) kinship ties important for sanctioning system
- Ideas, ideologies, convictions affect choices and matter more the lower the cost of their expression

## North Ch 5 slide 2

- Informal constraints
  - coordination rules are self-enforcing
  - norms of cooperative behavior need instruments of enforcement
  - Internal codes of conduct imply trade-off between wealth and other values (communism, religion)
- Payoff to honesty, integrity, reputation of trust poorly understood (a problem in the sociology of knowledge)
- How do we acquire, process, and utilize information?
- The cultural processing of information implies incremental change of institutions and path dependence of societies
- Changing formal rules do not immediately lead to changes of informal rules. Their interaction may lead to unexpected outcomes

## North Ch 6 slide 1

- Formal rules: a matter of degree, often making informal rules more effective
- Existing rules define the wealth maximizing opportunities of the players, promoting some kinds of exchange but not all
- Parts of the resources of the players will be devoted to protect or change existing rules
- Formal rules usually designed
  - with private wellbeing as a goal
  - With compliance costs in mind
- Changes in technology and relative prices will alter the relative gains from devising rules

## North Ch 6 slide 2

- Political rules leads to economic rules (and vice versa), but political rules have priority
- How do credible commitments evolve?
- Democracy gives greater political efficiency, but this is different from economic efficiency
- Democratic polities reduce transaction costs per political transaction but the volume increase
- Also increases in agency costs voter-parliament, parliament-government and rational voter ignorance affecting voting
- Inefficient property rights persist because powerful interest groups oppose changes, or because changes will lower tax returns
- Formal rules are incomplete – they depend on informal rules

## North Ch 7 slide 1

- Enforcement is neither constant nor perfect
  - Because of costly measurements, and because
  - Enforcement agents have their own agendas
- Contracts are self-enforcing when it pays all parties to live up to the promise (personal, small scale repeated deals will facilitate this)
- Impersonal exchange needs institutions providing
  - Information on the performance of contracting partners to determine when defection occurs
  - Incentives for some persons to actually carry out punishments

## North Ch 7 slide 2

- Institutions that facilitate exchange are costly and lowers the gain from trade
  - Dilemma: we cannot do without the state, but we cannot do with it either ...
  - With a wealth maximizing assumption not even a simple model of an efficient third party state can be constructed
- Are we a free people because of the constitution, or do we have this specific constitution because we are a free people?

## North Ch 8 slide 1

- Institutions and technology used in measurement and enforcement define transaction costs
  - Case study: Transfer of residential property in the USA
- Transaction costs also affect transformation costs (cost of monitoring output quality depends on and sometimes determine choice of transformation technology)
  - Case study: production of goods and services e.g. bargaining power of skilled labor, oil production
- The institutional structure of underdevelopment
  - See de Soto 2000

## North Ch 8 slide 2

- The institutional constraints that define the opportunity set of individuals are a complex of formal and informal constraints. They make up an interconnected web that in various combinations shapes choice sets in various contexts.
  - The complex is basically stable but change incrementally along several margins
- The institutional framework is the critical key to the relative success of economies, both cross-sectional as well as through time

## ON THE VIRTUES OF THE OLD INSTITUTIONALISM

- Institutions are staffed and are created to do the job of regulating organizations.
- This staffing of the institution, and all the creative work that is involved in funding, governing, training, and motivating institutional actions by that staff, has been lost in recent institutional theorizing.

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See also Goodin 1996, Hanna 1996, and Peters 1999

Stinchcombe (1997:2) “Institutions, I learned then, shaped the creation and functions of units in market and the relations between them. But unlike the institutions of modern institutionalism, people ran these institutions by organizing activities on their behalf.”

Stinchcombe (1997:4) “The impoverished view of modern institutional theorists (especially in the “organizational ecology branch”) reduces the conception of competition to that of the relations among organizations that have the “legitimate” organizational form for that “population.” This conception leaves out many aspects of what the traditional institutional theorists actually thought about competition. The transaction costs literature (e.g. Williamson 1975) preserves more of this content, except that it does not study legitimacy of the market itself, and so it has

a vacuous description of what firms (as hierarchies) are contrasted to. The conceptions of Commons and Schumpeter of how competitive markets came to be legitimate are not vacuous.”

Stinchcombe (1997:5) CASE 1: “a clear case in which legitimacy of rituals in courtrooms varies with how well they substantively achieve justice in the use of evidence in the law and so produce legitimate decisions. My argument is that unless the rules of evidence are guided by considerations of justice, they do not produce legitimacy.”

Stinchcombe, Arthur L. 1997 “On the Virtues of the Old Institutionalism”

Annual Review of Sociology Vol. 23, pp.1-18

## Ritual Means of Survival vs. Institutionalized Values

- Variations in the bindingness of institutional rituals are to be explained by beliefs about what the institution is for
- When the value system informing an institution ranks something as of high priority, it is more likely that the keepers of the institution will formalize conformity with the institution in a ritual designed to monitor, enforce, and enact the value of that something

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The court system as an institution producing legitimate decisions

Stinchcombe (1997:2-3) “It is a peculiarity of such courts that they produce legitimate decisions, and so legitimacy is absolutely central to their survival, and that in order to produce legitimate decisions they have to use legitimate means, especially legitimate evidence.”

Stinchcombe (1997:8) “I believe we have recently underestimated the degree to which people accept institutions because they think the institutions have the right answer, because institutions embody a value that the people also accept.” ... “The old institutionalist theory of Selznick and others is that reason and good sense are values, and formality a means to reason and good sense.”

Stinchcombe (1997:9) “The more justice matters, in short, the greater the formality of the application of the law of evidence. This point is crucial to our differences with the new institutionalism. We want to predict when the *institution* will demand more formality, not when the *organization* will more enthusiastically adopt the institution’s standards, as Meyer & Rowan (1977) do. It is precisely because the behavior of institutional authorities in enforcing standards varies that it is important to notice that institutions are staffed, rather than being merely collective representations.”

## How contracts in the market come to be legitimate

- by the way they are constituted,
- by **the mutual belief of the contracting parties that each is committed** to the line of action promised in the contracts,
- **especially the commitment of a firm to be competent** in the future to carry out the activities specified in the contracts.

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Stinchcombe (1997:5-6) CASE 3 “The third outlines why it ever becomes legitimate for competitors to do damage to each other, and how civil law has had to be arranged so that that competitive conflict gives rise not to claims in court, but instead to “legitimate” competition.”

Stinchcombe (1997:3) “The basic intuition here is Durkheim’s observation that there is a noncontractual basis of contract. In particular, the set of contracts that constitute a firm has a particular kind of noncontractual basis, outlined with great depth and perception by Commons.”

## Legitimacy in the law of market competition as a system,

- is related to the legitimacy of being able to do things better than competitors as a moral and legal claim on the profits of such competence.

Stinchcombe (1997:13) “But one of the positions he (Schumpeter) holds in common with the old institutionalists is that the form of competition among organizations is historically variable, depending a good deal on the values of the governing classes and their challengers.”

“Thus Schumpeter was primarily interested in the institutions that allowed the peaceful destruction of whole populations of organizations.”

Stinchcombe (1997:14) “In human history, competition has not ordinarily been legitimate. It is a wonder that modern organizational ecologists have not noticed this. Most institutional conditions restrict competition. Institutions that allow people’s livelihoods and capital to be destroyed by competition are rare.”

## The failure of institutions (1)

- Institutions, and commitment to institutions, are essential to the creation of public goods
- Economic progress involve the production of public goods, including obvious ones such as roads or civil order, and not so obvious ones such as the willingness to discuss what we should do next in a spirit of honesty and compromise

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Stinchcombe (1997:15) “Edward Banfield, in *The Moral Basis of a Backward Society* (1967 [1958]). The basic idea of that book was that some sorts of institutions undermine capitalist organizations, and that they do so by failing to provide integrity in the achievement of public goods”

“Banfield’s basic notion was that if the nuclear family was so set up that its solidarity and interests invariably overrode those of other institutions, then those other institutions could not do their job. Institutions that depend on generosity of spirit and attention to collective welfare are especially vulnerable.”

## The failure of institutions (2)

- When the institutional means to create public goods are not available, welfare seems to people to depend on looking out for themselves and their immediate kin, rather than on trying to create greater welfare for all
- Some sorts of institutions undermine capitalist organizations, and do so by failing to provide integrity in the achievement of public goods

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Stinchcombe (1997:16) “Durkheim held that the division of labor rested on the noncontractual elements of contract, the commitment to values of commercial honesty, nonstrategic use of bankruptcy, advertising with some information value, competence in one’s occupation, and the like. Banfield’s argument then might be read as asserting that both the contracts between firms, and between governments and firms, are not institutionalized under “amoral familism.””

Stinchcombe (1997:16) “The capacity of the population to create public goods, such as industry standards-setting, credit extension and its credit-rating system, honest brokerage in stock and bond markets, is crippled because that capacity used to be all embedded in the central planning system.”

“The basic postulate here is that organizations that work well do so by paying people to serve values, to try to be competent, to conduct their business with integrity.”

Stinchcombe (1997:17) “The combination of resources and believable commitment can only be created, so the old institutionalists argued, if people believe that the institutional enforcers themselves believe the values.”

## Concluding

- The guts of institutions is that somebody somewhere really cares to hold an organization to the standards and is often paid to do that
- Sometimes that somebody, or his or her commitment, is lacking, in which case the center cannot hold, and mere anarchy is loosed upon the world

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Stinchcombe (1997:6) “Much of the narrowness in modern institutionalism in organizational theory is explained by lack of detail in the conceptions of institutions.”

Stinchcombe (1997:17) “In short, the trouble with the new institutionalism is that it does not have the guts of institutions in it. The guts of institutions is that somebody somewhere really cares to hold an organization to the standards and is often paid to do that.”

Stinchcombe (1997:18) “And sometimes that somebody, or his or her commitment, is lacking, in which case the center cannot hold, and mere anarchy is loosed upon the world.”

## Institutional change

- From the particular demands for knowledge
- Shaped by interactions of
  - Existing institutions,
  - Stock of knowledge and
  - Maximising behaviour of agents
- Incremental changes in informal constraints caused by maximising behaviour

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North (1990:77) “In fact, the real tasks of management are to devise and discover markets, to evaluate products and product techniques, and to manage actively the actions of employees; these are all tasks in which there is uncertainty and in which investment in information must be acquired.”

(1990:78) “(1) the institutional framework will shape the direction of the acquisition of knowledge and skills and (2) that direction will be the decisive factor for the long-run development of that society.”

## Adaptive efficiency

- Allocative efficiency (Pareto conditions)
- Adaptive efficiency concerned with development through time; willingness to
  - Acquire knowledge and learning
  - Induce innovation
  - Undertake risk and creativity
  - Resolve problems and bottlenecks

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North (1990:81) “The society that permits the maximum generation of trials will be most likely to solve problems through time (a familiar argument of Hayek, 1960). Adaptive efficiency, therefore, provides the incentives to encourage the development of decentralized decision making processes that will allow societies to maximize the efforts required to explore alternative ways of solving problems.”

“It is essential to have rules that eliminate not only failed economic organisation but failed political organisations as well. The effective structure of rules, therefore, not only rewards successes, but also vetoes the survival of maladapted parts of the organisational structure, which means that effective rules will dissolve unsuccessful efforts as well as promote successful efforts.”

## North Ch 10

### Stability and Institutional Change

Stability is furthered by

- Rules hierarchically nested
- Informal constraints
- Habitual behaviour
  
- In equilibrium no actor find it profitable to devote resources to rule changes

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North (1990:83) “The sources of change are changing relative prices or preferences.”

North (1990:86) “Institutional equilibrium would be a situation where given the bargaining strength of the players and the set of contractual bargains that made up total economic exchange, none of the players would find it advantageous to devote resources into restructuring the agreements.”

## Most change is incremental

From shifts in

- Relative prices
  - Ratio of factor prices, cost of information, changing technology,
- Preferences
  - Changing relative prices (e.g. work-leisure, price of expressing ideas) may induce change in tastes
  - Ideas (moral, ethical) about the world

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Changes in relative prices may break an equilibrium making it profitable not only to devote resources to renegotiating contracts, but also to go up the hierarchy to rule changes, or on the other hand to breaking of informal norms or customs.

Cultural change is part of the process. But culture change at another rate, usually much more slowly, than formal aspects of institutions.

North (1990:87) “the persistence of cultural traits in the face of changes in relative prices, formal rules or political status makes informal constraints change at a different rate than formal rules.”

## Discontinuous change

- Does the institutions allow incremental change?
- Does the preferences allow bargaining and compromise?
- Successful revolutions require coalitions making final outcomes uncertain
- Successful revolutions require ideological commitment to overcome free riding
- Discontinuous change is not so very discontinuous!

North (1990:91) “Perhaps most important of all, the formal rules change, but the informal constraints do not. In consequence, there develops an ongoing tension between informal constraints and the new formal rules, as many are inconsistent with each other. An immediate tendency, as has been described, is to have new formal rules supplant the persisting informal constraints. Such change is sometimes possible, in particular in a partial equilibrium context, but it ignores the deep-seated cultural inheritance that underlies many informal constraints.”

## North Ch 11

### The path of institutional change

- Technological paths of development
  - “QWERTY”, gas engines not steam, alternating current vs. direct
  - Fuelled by **increasing returns, learning by doing**
- Self-reinforcing mechanisms
  - Large set-up or fixed costs (falling unit costs)
  - Learning effects (improved products, lower costs)
  - Coordination effects (several agents using the same)
  - Adaptive expectations (further belief in prevalence)

The fundamental problem of the book: Why do we not get convergence of economies and societies to the forms producing economic growth. What prevents the adoption of more “efficient” rules?

# Competing Technologies

## **Consequences of self-reinforcement**

- Multiple equilibria (outcomes indeterminate)
- Possible inefficiencies (best T may have bad luck)
- **Lock-in** (once a solution is reached, exit difficult)
- **Path dependence**

In reality the competition is between organisations employing the technology (institutions)

The arguments applying to technologies can be applied to institutions (we may consider institutions as a kind of technology) and we find the same increasing returns characteristics, all of Arthur's mechanisms apply:

Institutions have large set-up costs,

There are significant learning effects

There are significant coordination effects (contracts with other organisations, investments in public goods)

Adaptive expectations obtain (caused by learning to use an institution)

## The path of institutional change

- Increasing returns (self-reinforcement)
  - with increasing returns institutions matter and shape the long run path of economies. But with zero transaction costs the path is approximately efficient
- Imperfect markets (significant transaction costs)
  - With significant transaction costs the subjective models of actors as modified by imperfect feedback and ideology will shape the path
- Divergent paths and persistently poor performance may prevail

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North (1990:99) “The increasing returns characteristic of an initial set of institutions that provide disincentives to productive activity will create organisations and interest groups with a stake in the existing constraints. They will shape the polity in their interests.”

## The North-West Ordinance

- Governance and settlement of the lands in the West
  - Fee-simple ownership, inheritance, territorial government – self-governing, territory admittance as a state, a “bill of rights”, prohibiting slavery, and more
  - The law generated incremental change reinforcing its basic properties, but it was not inevitable.
    - Network externalities, learning of organisations, subjective models of the issues
  - Adaptively efficient economic and political processes

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But like the North-West path persisting, also inefficient paths may persist. North (1990:99)“The subjective mental constructs of the participants will evolve an ideology that not only rationalizes the society’s structure but accounts for its poor performance.”

Ex. Latin America : dependency theory, terms of trade

## Path dependence

- Entrepreneurs are constrained by existing institutions and by their imperfect knowledge
- Goals may not be reached
- Increasing returns of the institutional matrix means that even if specific changes may change history its direction remains the same
- USA vs Mexico: History matters

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Thus the same change in relative price will have different consequences in different institutional set-ups, and the same institutional rules grafted onto different societies will have different outcomes because of different players with different perceptions of the issues.

In south America the introduction of constitutions inspired by France and the USA did not much affect their path of development as determined by their history of centralized bureaucratic control.

Increasing returns is common to both technological path dependence and institutional path dependence.

North (1990:103) “The perceptions of the actors play a more central role in institutional than in technological change because ideological beliefs influence the subjective construction of the models that determine choices.”

## A short summary

Institutions as

- Social facts by agreement (Searle)
- Thought worlds/ subjective models (Douglas)
- Rules of the economic game shaped by
  - Transaction and information costs
  - Subjective preferences and learning
  - Increasing returns and political processes

## Institutions are

Humanly devised rules with some

Humans mandated to monitor and sanction rules

- Created to aide in collective actions problems to safeguard life and livelihoods
  - Avoid conflicts, create justice
  - Allocate legitimate benefits and duties, profits and costs
  - Economize on transaction costs
- **Not** created to achieve efficiency or optimise economic performance(of the neo-classical model)

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While the single omnipotent and omniscient person would have no management problems at all, such a person would neither have fellows nor a society around. If we take as a starting point that fellow humans are around, that they compete in the acquisition of benefits from divisible and scarce resources, and that they also are concerned about the equity of the final distribution, certain problems follow inevitably:

- Allocation of resource quotas: who gets how much from each resource?
- Allocation of costs: how do you distribute costs (monitoring and sanctioning costs, other transaction costs,)?
  - o Monitoring: how do you organise controls so that no one takes more than agreed and that everyone pays his/ her share of the cost?
  - o Sanctioning: what particular and practical consequences do rule breaking entail?
- Rulemaking: what are the procedures for (re-) negotiating the rules governing the management of the resource?

## Property rights institution

Tells that some person(s) have legitimate

- Rights and duties to be exercised in relation to
- Particular goods and services subject to possible
- Limitations on times and durations,
- Limitations of technology, and
- Limitations on organisation of exploitation

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Property rights "help man form those expectations which he can reasonably hold in his dealings with others" (Demsetz 1967, p. 347).

This means that property rights are a central part of human interaction. Even in situations where the actual on-going interactions have nothing to do with the distribution of benefits, one can see that the prevailing property rights affect the framework of interaction at least by defining and infusing the space-time setting of the interaction with particular meanings and classifications of events (Douglas 1986).

According to Godelier (1984:76) "the concept of property may be applied to any tangible or intangible reality", and rules of property rights will "always assume the form of normative rules, prescribing certain forms of conduct and proscribing others under pain of repression and sanctions".

But he also warns: "Property only really exists when it is rendered effective in and through a process of concrete appropriation" (p. 81).

This view certainly echoes De Soto's (2000) view on the development of customary property rights in the extra-legal sector of most third world and former communist countries.

## **The construction of social institutions**

For example

- Property rights regimes
  - Public property
  - Common property
  - Private property
- Regulations regimes
  - Governing externalities
  - Protecting unitary/ universal values
- Bureaucracies

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Social facts, existing by common agreement (money, governments)

From Open access to Property rights (= proper, legitimate rights and duties)

Rights and duties exist in the minds of people. They consist in what people believe they can legitimately do to the physical world. The precise limits to the rights and duties are the result of negotiations among stakeholders trusting that their agreements will be enforced by the state (or its equivalent for customary rules). Political processes will from time to time impose new rights and duties or alter the definition of old ones. Discrepancies in understanding the precise content of rights and duties in given situations may on the one hand cause conflict and sanctioning, but also on the other hand, learning and adjustment to the new content of the rights regime.

Bureaucracies

Rights and duties need guardians with power to monitor behaviour, interpret rules, and sanction breaches. The structure of power in such organizations, and the worldviews brought to bear on the perception of activities of owners and users of resources and the interpretation of the rules governing their activities, are critical for the long-term sustainability of the institution.

# **The social construction of institutions**

## **Informal institutions**

- Conventions
- Customs
- Values, Preferences
- Norms, Standards of conduct
- Beliefs, Ideologies, Morals

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All formal institutions are created, or grow, on top of a foundation of informal institutions. Thus resource management institutions comprise not only the formally created institutions (property rights and public regulations), but also the customary practices based on local culture and perceptions, as well as the corporate culture of professional bureaucracies.

Without some degree of congruence between informal rules and formal rules, the escalation of monitoring and sanctioning costs will make the formal institution ineffective.

## The dynamic of Institutions and organisations

- Rules of the game (the law)
- Guardians of the rules (the judge)
- Players (organisations)
  - Owners,
  - Local users,
  - Workers,
  - Professional managers, and
  - Firms of resource industries

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all pursue their goals, values and preferences within the constraints of both a physical and institutional reality.

## Strategies of the players

Our theory requires by assumption that players

- Optimise their returns from resource use activities by conforming to and **exploiting the existing institutional environment**, or to
- **Change the resource policy** in a desired direction if the expected outcome of a political effort is seen as cost effective.

The competition among actors ensures that those who are best at exploiting the resources within the existing institutional system will prosper and become powerful. The historical dynamic of adaptation to an institutional structure among actors produces a lock-in between the population of actors and the institutional structure.

## Lock-in of institutions and organisations

- Mutual interdependence institution-organisations
- Institutional changes by public initiative or revolution creates counter-forces
- Economic performance is **PATH DEPENDENT**
- Change occurs at the margins

But the opposition to proposals of changes of institutions may not come only from the population of actors prospering from their usage of the resource system. If the proposed institutional changes entail major changes in the bureaucracy monitoring the rule system, such as changing the allocation of power, or changing the allocation of resources for monitoring and sanctioning, also the bureaucrats may take “political” action directed at minimizing the actual changes.

## Eggertsson 1990 Ch 8

### Emergence of property rights

- Basic: a state prefers to maximise the wealth of the country, other things being equal
- The naive model of property rights
- When exclusive rights do not emerge
- Interest group theory of property rights
- Rent seeking

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Eggertsson (1990:247-280) Ch. 8 “The Emergence of Property Rights”

Eggertsson (1990:248) “a macro version of Coase’s law:

“The economic growth and development of a country are basically unaffected by the type of government it has, if the cost of transacting in both the political and economic spheres is zero. However, when transaction costs are positive, the distribution of political power within a country and the institutional structure of its rulemaking institutions are critical factors in economic development.”

## The naive model of property rights

- Property rights develop to internalise externalities when gains of internalisation are greater than costs of internalisation.
- Only private benefits and costs are considered
- It emphasises exclusion costs and considers
- Internal governance costs of shared rights
- NOTE: Both are costs of collective action and depends on political institutions

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Classic reference for the naïve model: Demstz 1967 “Towards a Theory of Property Rights”

Example discussed: the introduction of exclusive rights to hunt beaver in the eastern part of Canada after commercial hunting was introduced by the Hudson Bay company.

One reason for the failure of exclusive rights to protect the beaver population was that hunting for private consumption was open access. This GS (Good Samaritan clause) provided insurance and lowered enforcement costs of exclusive commercial rights, but it had its costs in terms of depletion of beaver stocks.

Eggertsson (1990:254) the naïve theory used by North and Thomas (1977) and North (1981) to explain the emergence of agricultural societies. The driving force in their model is population pressure.

Eggertsson (1990:262) “Individuals can use the state in several ways for their personal gain: by lobbying for rules that increase the community’s aggregate wealth, by seeking direct transfers that are not output enhancing and may have negative effects on incentives, and by obtaining property rights that create artificial scarcities and output losses.”

The naïve theory is consistent with all types of behaviour.

## When exclusive rights do not emerge

Open access because of

- High exclusion costs
  - Fisheries
- High internal governance costs in a commons
  - Heterogeneous fishermen
- Open access enforced by the state
  - Value of equal access

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Eggertsson (1990:263) “With rising marginal costs of enforcement and falling marginal benefits, exclusive rights are seldom complete. Furthermore, optimising owners seek enforcement at margins where costs of measurement and enforcement are low.” ... “In most communities the uses of scarce and vital resources tend to be constrained by some form of exclusive rights.”

Eggertsson (1990:266) “Our analysis suggests that, other things being equal, high exclusion costs will push the ownership structure of a resource toward a large commons, which is consistent with the organisation of ocean fisheries of today.”

That is most fisheries are state property, states granting individual fishers use rights.

Why will a state tolerate that rent from fisheries is dissipated?

Johnson-Libecap 1982 argues that the heterogeneity of fishermen may explain their missing support for regulations.

Libecap-Wiggins 1985 report that high costs of ex ante estimating the value of leases of oil fields are the major facto blocking spontaneous private contractual agreements on unitization or lese consolidation.

## Interest group theory of property rights

- Case studies of
  - Regulations of the US oil industry
  - The agriculture of Norway
  - The bureaucracy of PeruDisproves the naïve theory
- The state is ruled by interest groups competing for maximum wealth

Eggertsson (1990:271) “The role of government in the naïve theory of property rights is implicit. It is assumed that the state will create a general framework of property rights that permits individuals to maximise the community’s net wealth by taking advantage of the division of labour and market exchange. In situations where transaction costs are high. The state maximises wealth either by assigning property rights directly to individuals or by redefining the structure of rights in specific ways.”

Eggertsson (1990:275-276) “Property rights, which serve the narrow self-interest of a special-interest group but cause substantial output losses to the community as a whole, typically are explained in terms of transaction costs, free-riding, and asymmetrical information.”

## Rent seeking

- Concerns the losses of (neoclassical) social welfare losses resulting from the restriction of trade through tariffs, monopolies, and the like, which special interest groups obtain from the government.
- When information is costly the cost of struggles may easily exceed the rent sought

The interest group theory of property rights is closely related to the theory of rent seeking.

## Eggertsson 1990 Ch 9

### Property rights in stateless societies

- Origin of cooperation
- Order: violence and deterrence
- Order: customary law and ideology
- Evolutionary theory
- Insurance functions
- Iceland's commonwealth 930-1263
- International property rights

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Eggertsson (1990:282) “Let us assume that comparative statics analysis reveals that a particular society depends on relative costly political institutions in terms of resource costs and net output foregone and, further, that alternative institutional arrangements are known and technically available. Neo-institutional economics suggests three responses to such findings. First,

- the investigator reexamines carefully the transaction costs dictated by the physical environment of the community and attempts to establish whether alternative institutional arrangements would in fact economize on resources and generate more wealth, even when political costs of institutional change are ignored. Second,
- He or she seeks to model and investigate the political environment of the economy in order to identify political constraints on institutional change.”  
... “ Third,
- The investigator looks for strongly held values (perhaps relics from a prior environment) that get in the way of institutional change.”

# Stateless societies (1)

## Violence and deterrence

- Prisoners dilemma
  - External constraints
  - Internalised values
  - Repetition, no endgame
- Umbeck's model of the gold rush
  - Work on either mining or violence

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Eggertsson (1990:284) “The social mechanisms for constraining open access and establishing exclusive rights fall into four interrelated categories:

1. Exclusion by means of force or threats of force
2. Values systems or ideologies, which affect individual incentives and lower the cost of exclusion
3. Custom and customary law, such as the rules in prestate societies that define the clan, vengeance group, or eligible brides for a man and other forms of behaviour
4. Rules imposed by state and its agencies, including constitutions, statutes, common law, and executive decrees.

All societies, the modern state included, depend vitally on self-enforcement, customary law, and value systems for preventing general conditions of open access and destructive wealth seeking, but the role of these factors in shaping economic incentives is not well understood.”

Karl Polanyi: the economic analysis of exchange relations is meaningful only when allocation of resources is dominated by price-making markets.

## Choosing between aggression and non-aggression

Payoff in cattle units	Family Y			
	A	N		
Family X				
A	4	4	18	2
N	2	18	10	10

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Above In Matrix 9.1 the optimal joint solution is non-aggression (peaceful co-existence), but rational choice will give (A,A)

Next in Matrix 9.2 Certain retaliation will make outcomes (N,A) and (A,N) impossible given the rationality assumption i.e  $(N,A)=(A,N)=(0,0)$

Matrix 9.3 Customary law and ideology produce secondary costs, for example reducing (A,A) to (-5,-5) (aggression reduces a payoff with 9 CU), and (N,A) to (2,9). In this game (N,N) becomes a dominant strategy.

Matrix 9.4 Modelling the emergence of cooperation in repeated games.

Robert Axelrod, The Evolution of cooperation, the tit-for-tat strategy. The role of the endgame. The role of the discount rate for valuing future benefits, and the chance of meeting the other player again. Developing a reputation.

Eggertsson (1990:3029 Schofield (1985) “The theoretical problem underlying cooperation can be stated thus: what is the minimal amount that one agent must know in a given milieu about the beliefs and wants of other agents, to be able to form coherent notions about their behaviour, and for this knowledge to be communicable to others.”

## Stateless societies (2)

### Customary Law and ideology

- Vengeance groups collectively responsible
- Systems of compensation payments often requires an arbitrator
- Cross-cutting allegiances

### Insurance against hunger

Blocking of development of a state = blocking wealth and power

### Breakdown of the Icelandic Commonwealth

### International property rights (no external constraints)

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Eggertsson (1990:304) “In prestate societies, the economic rationale for exchange is usually not specialization in production; the main function of exchange is rather to meet the community’s demand for insurance against hunger.”

Eggertsson (1990:308-309) Commonwealth 930-1262. “The eventual breakdown of the system was preceded by (1) a strengthening of the relative position of the chieftains vis-à-vis their liegemen, and (2) the merger of the thirty-nine competitive firms (chieftaincies) into a few oligarchic firms.”

Students of the Commonwealth have remarked how essentially the same constitution and the same laws generated widely different behaviour at different times.” The same is seen in our modern world:

- 1) Also strong states have measurement problems and agency costs – therefore contracts
- 2) States engage in collective action
- 3) Trade facilitated by public goods (measurement standards)

Hegemony cannot be modelled by the prisoners dilemma. A hegemon is a powerful state with resources to coerce weaker states to adhere to an international structure of property rights. Using selective incentives, reputation building, bluffing. Asymmetries in information and power are the basic features.

## Evolutionary models

How do particular personality traits emerge?

How do particular social customs emerge?

- Modelling by natural selection mechanisms
  - Genetic controls are “soft-wired”: learning
  - Both culture and genes are affected by selection
  - Culture change more rapidly than genes
  - Dominance, sharing, privacy
  - Defensive belligerence and reluctance to intrude may be “hard-wired” (the privacy ethic)

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3.: E.g. genes ill adapted to urban factory life

4.: The three main social principles may have evolved in nature, closely intertwined.

Remember also Mary Douglas speculations about the functional dynamic tied to weak leadership (avoid dominance), strong boundaries (sharing), and the principle of betrayal (privacy as betrayal of the community)

Rational choice theories of cooperation requires a taste for some form of cooperation.

How can we model the emergence of tastes and ideology?

## Eggertsson 1990 Ch 10

### The state in neoinstitutional economics

From informal rules, values and taboos to

- complex exchange among unrelated individuals and specialized production
  - North's theory of the state
  - Investigations
    - Political coalitions and property rights
    - The state and its agency problems
    - Public finances, constrained optimisation
  - Democracy, information costs,
    - organisation of the US congress

## The state: a model

- Technical production frontier
  - Stock of knowledge
  - Endowment of resources
- Structural production frontier
  - Feasible organisation minimising costs, maximising output, defined by the
  - System of property rights depending on Political structure

Eggertsson (1990:319) “The stock of knowledge in society and the endowment of resources determine the technical upper limit for productivity and output, the economy’s technical production frontier. However, for each structure of property rights there is a structural production frontier, which is reached by selecting, from the set of feasible organisations, those structures that minimize costs and maximize output. The set of feasible forms of economic organisation is defined by the system of property rights (given the state of technology and other exogenous factors), and the system of property rights depends on the community’s political structure. And, finally, some political systems create incentives that place the structural production frontier close to the technical production frontier; other political systems do not. Usually, a political change is required to move the structural production frontier closer to the technical frontier, and, therefore, a cost-benefit evaluation of economic reforms must include both the costs of political change and the costs of maintaining (enforcing) each system.”

## The state: Ability to tax

A ruler maximises income under constraints

1. Threat of entry by rivals (have the ruler's subjects an alternative?)
  - Rational to tax with varying tax rates
2. Opportunistic behaviour of the state's agents
3. Measurement costs

Eggertsson (1990:323) “North defines the state as “an organisation with comparative advantage in violence, extending over a geographic area whose boundaries are determined by its power to tax constituents.””

## Investigations (1)

The structural production frontier depends on

- Decision-makers bearing the full costs and benefits of decisions
- Rights are secure and clearly defined, there is low cost conflict resolution mechanisms
- Lowering measurement and transaction costs
- Directly assigning property rights when TC prevents voluntary exchange

## Political coalitions and property rights

- Political power =  $f(\text{economic base, } 1/\text{cost of collective action})$ ,
- Divide and rule by selective rewards,
- Ideological fervour lowers cost of CA, and increases political power
- Population growth, military technology affects bargaining power

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Bates (1981) studies “Markets and states in tropical Africa”

1. System of property rights unfavourable to farmers
2. The system favours urban dwellers, bureaucrats, and local industries
3. The state prefers direct controls to indirect measures affecting relative prices, it prefers mammoth projects (prestige?)
4. The state uses selective incentives for getting support from the countryside (allocation of agricultural inputs, rural services)
5. The state is ready to use violence against political entrepreneurs who try to capitalize on rural discontent

Farmers have high costs of CA, but adjust by producing unregulated crops rather than the one the government wants (cash crops)

## Agency problems in Soviet Type Economies

- Reforms may threaten the interests of the agents of the state
- High transaction costs may prevent side payments to ensure their loyalty to reforms
- STE: industry and agriculture managed by the state as one big firm
- Double structure: management and political controls (by communist party controlling appointments to management)

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Cumulative effects of the system's agency problems

the incentives are not to minimize costs, but to meet volume or value quotas

(resource intensity per output unit, transport intensity per unit GNP)

Increases in transaction costs due to changes in the technological environment

the hierarchical management structure works best when

- (1) final outputs have few quality dimensions
- (2) vertical phases of processing a commodity are few
- (3) when there are substantial economies of scale
- (4) when technologies does not require horizontal linkages

Efforts at reforms were thwarted by middle level party functionaries who would not make themselves obsolete

Their property rights to managerial positions (the nomenklatura system) cannot be abolished without transferring wealth away from them.

## Privileges of agents

- Nomenklatura privileges are system specific to STE (main beneficiaries are party apparatchiks and management bureaucrats)
- Military and police privileges are system specific to autocratic forms of governments

## Public finance and property rights

- Long-term investments only when future rights are seen as secure
- Predatory public finances may move the economy's structural production frontier away from the technical frontier
- Financing of early modern states faced
  - Political constraints
  - Measurement and other transaction costs in taxing
- Resulting in predatory financing

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Eggertsson (1990:341) “Predatory public finances creates de facto incomplete exclusive rights, and wealth maximising individuals respond to uncertain property rights by making various adjustments to minimize the risk of appropriation.”

Eggertsson (1990:343-344) “ ..., a ruler who is not constrained by competition, agency problems, and measurement costs will seek to maximize the state's tax base. However, in the real world, rulers do face the constraints just listed: their control (ownership) of the potential tax base is incomplete and uncertain, and, under certain circumstances, dissipation becomes rational behaviour for a wealth maximising ruler.” ... But “the addition of further constraints can both create stable property rights and increase public and private revenues.”

## Protection against confiscation of quasi-rents

- Vertical integration
  - In politics leading to soviet type economies (STE)
- Constraining potential appropriators
  - Credible commitments by hostages
  - Deprivation of power to appropriate

England during the seventeenth century:

Eggertsson (1990:345-346) “The new political institutions and fiscal revolution made credible the government’s commitment to honour its credit contracts, and the new structures demonstrated how: “Rules that can readily be revised by the sovereign differ significantly in their implications for performance from exactly the same rules when not subject to revision.”(North and Weingast 1987:1)”

## Ch 12: Institutions, economic theory and economic performance

In this chapter

1. Changes needed in neo-classical economic theory
2. Implications for the static analysis of economic performance
3. Implications for a dynamic theory of long-run economic change

North (1990:107) "We cannot see, feel, or even measure institutions; they are constructs of the human mind."

# 1 Changes needed in neo-classical economic theory

- A procedural concept of rationality, based on
- The costs of transacting, and recognizing that
- Institutions imply market imperfections: there will always be incompatible incentives
- Institutions are provided in the political market: voter ignorance, incorrect perceptions, etc....

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North (1990:108) “If ... the actors are incompletely informed, devise subjective models as guides to choices, and can only very imperfectly correct their models with information feedback, then a procedural rationality postulate ... is the essential building block to theorizing.”

North (1990:109) “There is a vast gap between better and efficient (in the neoclassical meaning of the term) outcomes, as a vast literature in modern political economy will attest.”

North (1990:110) “And the modern Western world provides abundant evidence of markets that work and even approximate the neoclassical ideal. But they are exceptional and difficult to come by, and the institutional requirements are stringent.”

## 2 Economic performance: statics

- Models as specific to particular constellations of institutional constraints

They do not recognise

- Subjective perception, incomplete information and complex environments
- Ideas and ideologies matter. Institutions determine how much they matter.
- Politics and economy are interlinked. This needs to be reflected in theories

North (1990:111) “Our preoccupation with rational choice and efficient market hypotheses has blinded us to the implications of incomplete information and the complex environments and subjective perceptions of the external world that individuals hold.”

### 3 Economic performance: dynamics

New theory building on old elements

- Scarcity/ competition
- Incentives are the driving forces

And new elements

- Incomplete information
- Subjective models of reality
- Increasing returns characteristics of institutions

Increasing our understanding of path dependence

North (1990:112) “The source of incremental change is the gains to be obtained by organisations and their entrepreneurs from acquiring skills, knowledge, and information that will enhance their objectives. Path dependence comes from the increasing returns mechanisms that reinforce the direction once on a given path. Alterations in the path come from unanticipated consequences of choices, external effects, and sometimes forces exogenous to the analytical framework.”

## A case of path dependence

### Spain-Latin America

- 1500: not yet unified, centralized Castile
- Problem: rising costs of warfare - Cortes, taxing wool trade
- Fiscal crisis unresolved, evolution of church and bureaucracy, 300 years of stagnation
- Inherited by Latin America

### Britain-North America

- 1500: centralized feudalism and monarchy
- Problem: rising costs of warfare – Parliament, taxing wool trade
- Fiscal crisis resolved, evolution of polity, started the road to world hegemony
- Inherited by North America

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Spain: a centralized bureaucracy administering an ever growing body of regulations and legislation in the most powerful empire since Rome. Revolt of the Netherlands, loss of bullion from overseas revealed that expenditure far outstripped tax revenue resulting in bankruptcies, confiscations and insecure property rights. Only the church and the judiciary were rewarding occupations. In general disincentives to productive activity.

Britain: expenditures were early on tied to tax incomes, bank of England, a private banking system, more secure property rights, and decline of mercantilist regulations. In general incentives to productive activity.

This legacy lives on. On page 116-117 there is a quote from Coatsworth (1978:94) which parallels de Soto's statements exactly.

## Ch13: Stability and change in economic history

Institutions provide a basic structure permitting the creation of order and reduction of uncertainty

- What kinds of institutions permit the capture of the gains from trade inherent in the neoclassical (zero transaction costs) model?
- Some paths led to stable exchange patterns other paths led to dynamic change
- Why stability and why change?

North (1990:118) "The argument advanced in this study is that the current forms of political, economic, and military organization and their maximizing directions are derived from the opportunity set provided by the institutional structure that in turn evolved incrementally."

## Changing economies

- Growing specialisation and market access
  - From village markets to global markets
- Transaction costs change as scale increases
  - Agency problems (kin-networks, commenda)
  - Contract enforcement absent a state
- Ending up with first national, then global capital and commodities markets
  - The global system is now struggling to solve some of the same problems as the nation state of early modern Europe (standardized measurement units, medias of exchange, laws, enforcements agencies, taxation)

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“Primitive” forms of exchange still exist. Village markets still flourish in many parts of the world. Only in western Europe the early medieval long distance trade created a long term dynamic, a sequence of internal developments of more complex forms of organisations that led to our present global economy.

What are the forces behind stability in one case and change in the other?

## Stability of the Suq

- High measurement costs
- Continuous efforts at clientization
- Intensive bargaining at every margin

The name of the game is to raise the costs of transacting to the other party to exchange. One makes money by having better information than one's adversary

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North (1990:125) "Tribal organisation, the suq, and caravan trade are characteristic of stable patterns of very limited cooperation that have persisted through history. In each case, the skills and knowledge requisite to success on the part of the organisations or individuals involved did not entail or induce productive modifications of the institutional framework. In each case the sources of institutional change were external.

In contrast, the history of long-distance trade in early modern Europe was the story of sequentially more complex organization that eventually led to the rise of the Western world."

# European institutional changes in medieval and early modern times

## Organizational innovations at 3 cost margins

- Increasing the mobility of capital
  - Evading usury law
  - Bill of exchange, negotiability and discounting
  - Enforcement, accounting and auditing methods
- Lowering the information costs
  - Printing of prices and manuals
- Spreading the risk
  - Insurance
  - Organisations (portfolio diversification, limited liability)

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Innovations from Byzantium or Italian city states.

The increasing returns from a growing volume of trade made it profitable to devise mechanisms for lowering costs and spreading risks, and the lower costs and spreading of risk encouraged more trade.

Development of the Law Merchant:

- Common law interfering with trade – no protection of bona fide purchases of stolen goods,
- Responsibility for agents

## Institutional stability?

- Normally, in history social change does not encourage maximizing actors to obtain knowledge and skills that increase productivity
- Neither does it normally induce institutional change conducive to increased productivity
- European history is special
  - Why the Netherlands and England?

North (1990:130) "A traditional explanation for European success in contrast to China, Islam, or other areas is competition amongst political units. There can be little doubt that this competition is an important part of the story, but clearly it is not the whole story. Parts of Europe failed to develop. Spain and Portugal stagnated for centuries and economic growth in the rest of Europe was uneven at best. It was the Netherlands and England that were carriers of institutional change. The characteristics of path dependence, described in the previous chapters, set within the context of the contrasting *initial* conditions produced the diverging stories of Spain and England."

## Ch 14: Incorporating institutional analysis into economic history: prospects and puzzles

- Traditional history emphasis technology and the industrial revolution to explain change – but in many cases technology seems to make matters worse
- Application of neoclassical economic theory made it possible to focus on choices and constraints – but it was a static theory
- Neo-institutional theory can do it better

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North (1990:133) “There is a different, and I think, better story. It concerns the endless struggle of human beings to solve the problems of cooperation so that they may reap the advantages not only of technology, but also of all the other facets of human endeavour that constitute civilization.”

## What makes for efficient markets?

- Technology provides an upper bound on economic growth
- Neoclassical models of growth crucially depends on an implicit incentive structure that drives the models
- Marxist models of exploitation have to demonstrate that the institutional framework produce systematic uneven consequences
- Are exploitative institutions imposed from outside or are they endogenously determined?

North (1990:134) "If poor countries are poor because they are victims of an institutional structure that prevents growth, is that institutional structure imposed from without or is it endogenously determined or is it some combination of both?"

## Incentives are the key

- Rationality
- Ideas
- Ideologies
- Maximising behavior
- Relative prices
- Collaboration and organisation to exploit opportunities structured by institutions

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North (1990:136) "In fact, it was the adaptively efficient characteristics of the institutional matrix (both formal rules and the informal constraints embodied in attitudes and values) that produced an economic and political environment that rewarded productive activity of organisations and their development of skills and knowledge."

North (1990:137) "Whatever the real underlying sources of the farmers' plight that produced discontent in the late nineteenth century, it was the farmers' perceptions that mattered and resulted in changing the political and economic institutional framework."

## The adaptive efficiency of the institutional matrix

- The informal constraints come from
  - Cultural transmission of values
  - Extension and application of formal rules to solve specific exchange problems
  - Solutions of straightforward coordination problems
- Traditions of hard work, honesty, and integrity - reinforced by ideologies lowers TC
- The transaction costs inherent in the political process are always high

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North (1990:138) “The subjective perceptions of the actors are not just culturally derived but are continually being modified by experience that is filtered through existing (culturally determined) mental constructs. Therefore, fundamental changes in relative prices will gradually alter norms and ideologies, and the lower the costs of information, the more rapid the alterations.”

North (1990:140) “One gets *efficient* institutions by a polity that has built-in incentives to create and enforce efficient property rights. But it is hard – maybe impossible – to model such a polity with wealth maximising actors unconstrained by other considerations.”

## Summing up new institutionalism 1

1. Individual agents and groups pursue their respective projects in a context that is collectively constrained.
2. Those constraints take the form of institutions – organised patterns of socially constructed norms and roles, and socially prescribed behaviours expected of occupants of those roles, which are created and recreated over time.
3. Constraining though they are, those constraints nonetheless are in various other respects advantageous to individuals and groups in pursuit of their own more particular projects.

## Summing up new institutionalism 2

1. The same contextual factors that constrain individual and group actions also shape and constrain the desires, preferences, and motives of those individuals and group agents.
2. Those constraints characteristically have historical roots, as artifactual residuals of past actions and choices.
3. Those constraints embody, preserve, and impart differential power resources with respect to different individuals and groups.
4. Individual and group action, contextually constrained and socially shaped though it may be, is the engine that drives social life.

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Goodin (1996:19-20)

Goodin (1996:21) “From this external point of view a social institution is, in its most general characterization, nothing more than a “stable, valued, recurring pattern of behaviour.”” (ref.: Huntington 68, Eisenstadt 68)

## Further constraints on institutions

Based on de Landa (1997) we have to add that

1. Institutions are constrained by physical nature, and the temporal dynamic of physical nature: space and time matters
2. Institutions are constrained by the quality and cost of models informing actors about the dynamics of physical nature: adaptive efficiency is a key characteristic of institutions

## Change in institutions

- By accident
  - Purely a matter of contingency
- By intentional intervention
  - Political action, inaction, miscalculation
- By evolution
  - Probe heads and selector mechanisms (such as voting with one's feet, or a grand shared value working out its implications)

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Institutions are seldom “designed” but grow out of a multiplicity of driving forces from accidents to intentions gone wrong.

Goodin (1996:28) “Thus, even within the realm of our intentional interventions, what we should be aiming at is not design of institutions directly. Rather we should be aiming at design schemes for designing institutions – schemes which will pay due regard to the multiplicity of designers and to the inevitably cross-cutting nature of their intentional interventions in the design process.”

We should be **redesigning institutions**, and we should be doing it **indirectly** rather than directly

## Change: A micro perspective

The discourse of goals and outcomes: politics

- Shaping collective constraints: institutions
- Constraints: resource scarcities and abilities
- **Individuals have goals and act**
- What individuals actually do: outcomes
- Discovering discrepancies between what is done and what ought to be done: politics

## Change: A macro perspective

- Acquiring language “creates” the individual
- Individuals connect to the world through language
- Language is used to confirm and transform the system of values and goals embedded in everyday activities
- Patterns of everyday activities sum up to collective institutional outcomes
- Discovering discrepancies between patterns of outcomes and beliefs may entail a new language

## Design of what? And why?

- Creating rules, staffing bureaucracies
- Values: whose values?
- Who is the designer of institutions?
  - Who creates rules? Who appoints staff?
- Can self-grown institutions be said to have a design?
- Who is the beneficiary of the institution?
- How is design different from governance?

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Design should build on existing elements and prevailing values, also when the object is to change some troublesome value or practice

# Design of

- Policies (political science)
  - New solutions, feasibility, implementing
- Mechanisms (economics)
  - For general resource allocation
  - Integration of information and incentives
- Whole systems (operations and systems research)
  - “Goodness of fit”
- Norms: From “optimal mechanisms” to empirical data?

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Goodin (1996:33) “They invite us to reflect upon larger contexts; to be sensitive to all the various forces in play, and to all the complex interactions among them; to interrogate thoroughly our own values, and to assess carefully the way in which all these interactions might impact upon whatever it is we value and disvalue in social outcomes.”