

INSTITUTIONS AND INSTITUTIONAL DESIGN

Erling Berge

Reading

North, Douglass C. 1990. *Institutions,
institutional change, and economic
performance*. Cambridge: Cambridge
University Press.

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Introductory remarks

- New/ Neo institutional economics
 - Transaction costs
 - Information costs
 - Measurement costs
- Property Rights
- Agents
- Contracts
- The state
- Cooperation

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More literature:

Alchian, Armen A 1950 "Uncertainty, Evolution, and Economic Theory" *Journal of Political Economy* 58(3):211-221

Alchian, Armen A 1965 "Some Economics of Property Rights" *Il Politico* 30(4):816-829 (reprinted in Alchian 1977 "Economic Forces at Work", Indianapolis, Liberty Press)

Coase, Ronald H. 1960. "The Problem of Social Cost." *The Journal of Law and Economics* 3 (Oct.):1-44.

Eggertsson, Thrainn 1990 "Economic Behaviour and Institutions", Cambridge, Cambridge University Press

Matthew, R C O 1986 "The Economics of Institutions and the Sources of Growth", *Economic Journal* 96(Dec):903-910

North, Douglass C 1981 "Structure and Change in Economic History", New York, W.W.Norton

Shepsle, Kenneth A, and Weingast, Barry R 1981 "Structure-Induced Equilibrium and Legislative Choice", *Public Choice* 37(3):503-519

Williamson, Oliver E. 1996 "The Mechanisms of Governance", New York, Oxford University Press,

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 are very important because ---- (next slide)

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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Based on full information and zero transaction costs, optimality is the result by definition in neo-classical models. These optimal outcomes are called efficient.

Eggertsson 1990:20-22

“Outcomes that deviate from outcomes in models based on fully defined exclusive rights and costless transactions are called “inefficient”.(21)

“In the basic neo-classical model, which assumes zero transaction costs, there is no logical rationale for contractual arrangements such as various types of firms, or even money.”(22) “... it is not clear how economic outcomes in a world of full information can be used as a yardstick of efficiency in real-world situations.” (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.

Well defined property rights will significantly reduce several of these transaction costs.

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 (=new/ neo institutional economics) 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 contracts
3. Seeing social and political institutions as outcomes of exchange between individual agents. Competition for survival among institutions leads to equilibrium institutions.

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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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Note 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 forms 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 out. 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
- Strategic interaction and cooperation are explored in game theory

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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.”

Cooperation: game theory says

Difficult when

- Games are not repeated
- Information about other players is lacking
- Number of players is large
- Ratio of costs to benefits is large (Hardin)
- “Community” is lacking (Taylor)
- “Group oriented” preferences (Margolis)

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Key features of “community” is shared beliefs or norms, direct and complex relationships between members, and reciprocity.

Schofield (1985:13, cited in North 1990:15) “The theoretical problems underlying cooperation can be stated thus: what is the minimal amount that one agent must know in a given milieu about 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? It seems to me that this problem is the heart of any analysis of community, convention and cooperation.”

To come further we should return to the “Coase theorem”.

In the neoclassical model competition will eliminate the incomplete and asymmetric information that rewards defection in the game theory. And if there should be some transaction cost it is assumed that market institutions will be designed to induce the actors to acquire the essential information that will lead them to correct models.

North(1990:16) “In a zero-transaction cost world, bargaining strength does not affect the efficiency of outcomes, but in a world of positive transaction costs it does and given the lumpy indivisibilities that characterize institutions, it shapes the direction of long-run economic change.”

Game theory since 1990

Rapid progress such as

- Show the importance of monitoring and sanctioning
- Show the importance of trust
- Show the importance of cultural values
- Show the importance of communication, particularly non-verbal means of assessing trustworthiness

North, Douglass C. 1990

- Ch 1 An introduction to institutions and institutional change
- Ch 2. Cooperation: the theoretical problem

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North's goals

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

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)
- Define and limit the set of choices of individuals
- 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 need 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.

Institutions confer a feeling of security

- An institution comprise all that makes you feel that what you do is the right thing to do and you have every 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 this feeling 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)

Organisations

- Organisations are groups of people bound by some common purpose to achieve objectives

Example:

- The game of football: there are rules, judges and players
 - Institutions (rules+judge) – organisations (teams)
 - Football require monitoring and sanctioning of deviant behaviour
- Institutions may or may not have specialized roles for monitoring and sanctioning

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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 changes in rule configurations

From informal to formal

- 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.
 - Increasing returns characteristic of an institutional matrix producing lock-in and network externalities

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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 19th 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

Footnote:

- North 1990 can be read as a theoretical foundation for De Soto's study of "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)

Soto, Hernando de. 2000. *The mystery of capital : why capitalism triumphs in the West and fails everywhere else*. New York: Basic Books.

Modelling development: the neo-classical model

- Neo-classical models do not explain the persistence for millennia of inefficient forms of exchange
- The assumptions of scarcity has held up, the other model assumptions have not fared as well
- The model is missing an understanding of the nature of human coordination and cooperation

Ch 3 Neoclassical behavioural assumptions

1. The economic world is reasonably viewed as being in equilibrium
2. Individual economic actors repeatedly face the same choice situations or a sequence of very similar choices.
3. The actors have stable preferences and thus evaluate the outcomes of individual choices according to stable criteria
4. Given repeated exposure, any individual actor could identify and would seize any available opportunity for improving outcomes and, in the case of business firms, would do so on the pain of being eliminated by competition
5. Hence no equilibrium can arise in which individual actors fail to maximize their preferences
6. Because the world is in approximate equilibrium, it exhibits at least approximately the pattern employed by the assumptions that the actors are maximizing

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North (1990:19) Point 7 in the list above:

7. The details of the adaptive process are complex and probably actor and situation specific. By contrast, the regularities associated with optimisation equilibrium are comparatively simple; considerations of parsimony, therefore, dictate that the way to progress in economic understanding is to explore these regularities theoretically and to compare the results with other observations.

(point 1-7 are taken from Winter in Hogarth and Reder 1986:429)

Problems in behavioural assumptions

- Empirical problems with standard expected utility theory
 - Violation of transitivity
 - Framing effects
 - Preference reversals
 - Problems with subjective probabilities in uncertain choices
- Need to understand
 - motivation
 - perception of environment

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North(1990:17) “Individuals make choices based on subjectively derived models that diverge among individuals and the information the actors receive is so incomplete that in most cases these divergent subjective models show no tendency to converge.”

Coase's Theorem (1960)

- Coase's "The Problem of Social Cost" created problems for economists.
- Basically it says: Given the assumptions of neo-classical economics resources will be allocated to its most efficient use irrespective of ownership
- The implication that if it is costly to transact then institutions matter was not understood

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This makes it abundantly clear how difficult it is for economics to come to terms with institutions
Coase, Ronald H. 1960. "The Problem of Social Cost." *The Journal of Law and Economics* 3 (Oct.):1-44.

North 1990 conclude

- North(1990:16) “In a zero-transaction cost world, **bargaining strength** does not affect the efficiency of outcomes, but in a world of positive transaction costs it does and given the lumpy indivisibilities that characterize institutions, it shapes the direction of long-run economic change.”
- i.e. path dependence

Motivation

- Wealth maximising
- Altruism
 - Family
 - Free riders, fairness, justice
- Self-imposed standards of conduct
 - Ideology

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North (1990:22) “The evidence we have with respect to ideologies, altruism, and self-imposed standards of conduct suggests that the trade-off between wealth and those other values is a negatively sloped function.”

“I intend to demonstrate that institutions basically alter the price individuals pay and hence lead to ideas, ideologies, and dogmas frequently playing a major role in the choices individuals make.”

Deciphering the environment

- Real world
- Actor's perception of the world
 - Ideology: the “thought world” of the actor
- Uncertainty in choice situations
 - Personal and routine: small uncertainty
 - Impersonal and non-repetitive: large uncertainty
- Institutions exist to reduce uncertainty in human interactions

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The introduction of this distinction is to my mind very important, not least since this distinction is central in several approaches to the sociology of knowledge. For example in the book by Mary Douglas. But also in the “social construction of reality”.

Transaction costs and exchange

- Production costs consist of resource inputs (labour, capital, land) needed for both transforming and transacting
- Transforming the physical attributes of a good
- Transacting: defining, protecting and enforcing property rights
 - Measurement costs
 - Enforcement costs

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North (1990:29) “The value of an exchange to the parties, then, is the value of the different attributes lumped into the good or service. It takes resources to measure these attributes and additional resources to define and to measure rights that are transferred.

The transfers that occur with an exchange entails costs that result from both parties attempting to determine what the valued attributes of these assets are – attributes that, because of prohibitive measurement costs, have remained poorly delineated.”

Measurement costs

- Asymmetric information
 - Adverse selection
 - Moral hazard
- Variety of characteristics and costliness of measuring attributes implies a variety of ownership rights
 - Ex: fruit and vegetable sellers leaving several valuable margins in the public domain

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North (1990:31) “The net gains from exchange are the gross gains, which are the standard gains in neoclassical theory and in the international trade model, minus the cost of measuring and policing the agreement and minus the losses that result because monitoring is not perfect.”

“..., the maximization of an asset’s value [from the perspective of the total economy, my comment] involves the ownership structure in which those parties who can influence the variability of particular attributes become residual claimants over those attributes.”

(ref.: fruit and vegetable sellers making the buyer responsible for some of the qualities of the product while saving his or her own costs on sorting and grading)

Asymmetric information costs

Adverse selection

- occurs when different principals use different measures. The one with the least accurate measure will get the persons with the lowest qualities. (ex: seller of life insurance knowing less than buyer)

Moral hazard

- measurement by proxy (or asymmetric information: agent knows more than principal) gives rise to temptation to shirk

Enforcement costs

- Negotiating agreements
- Policing performance (measurement costs)
- Enforcement
 - Self-enforcement (internal codes of conduct, socially sanctioned norms)
 - Second party retaliation
 - Third party retaliation

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North (1990:33) "... without institutional constraints, self-interested behaviour will foreclose complex exchange, because of the uncertainty that the other party will find it in his or her interest to live up to the agreement. The transaction cost will reflect the uncertainty by including a risk premium, ..."

Institutions and transaction costs

- “Because with any property rights structure transaction costs are positive, rights are never perfectly specified and enforced; some valued attributes are in the public domain and it pays individuals to devote resources to their capture.” (North 1990:33)

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Property rights: “the rights individuals appropriate over their own labour and the goods and services they possess.”

Appropriation: a function of the institutions (legal framework, organisational forms, enforcement, and norms of behaviour)

Development history

- Personal exchange in small scale production and local trade were based on repeated dealings, cultural homogeneity, lack of third party enforcement.
- Increasing scale of production and division of labour leads to impersonal exchange where parties are constrained by kinship ties, bonding, exchange of hostages, and merchant codes of conduct. Frequently exchange is also constrained by being embedded in elaborate rituals and religious precepts. (in history the state at best was an ambiguous player by often increasing insecurity and transaction costs rather than being protector and enforcer of property rights).
- Impersonal exchange based on third party (state) enforcement.

Institutions determine

- “Institutions provide the structure for exchange that (together with the technology employed) determine the cost of transacting and the cost of transformation.” (North 1990:34)
- “..., effective third-party enforcement is best realized by creating a set of rules that then make a variety of informal constraints effective.”
- **How to do this is our main design problem.**

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(North 1990:34) “How well institutions solve the problem of coordination and production is determined by the motivations of the players (their utility function), the complexity of the environment, and the ability of the players to decipher and order the environment (measurement and enforcement).”

Informal constraints

- “Culture provides a **language-based conceptual framework** for encoding and interpreting the information that the senses are presenting to the brain.” (North 1990:37)
- The cultural filter provides continuity
 - Making informal constraints an important source of continuity in long range social change

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North (1990:37) “The way the mind process information depends “upon the brain’s ability to learn by being programmed with one or more elaborately structured natural languages that can code for perceptual, attitudinal and moral (behavioural) as well as factual information” (Johansson 1988:176).”

Case I: No formal rules

- Exchange is not simple
- Order depends on dense networks
 - Kinship very important
- Threats of violence (feuds)
- Compensation rules (between tribes)

- (also Eggertsson on Icelandic Commonwealth)

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Extensive documentation by anthropologists. We have seen what Mary Douglas has to say.
(from slide 12)

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
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 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.

Case II: Modern states

Informal rules are important also here, as

1. Extensions, elaborations, and modifications of formal rules
2. Socially sanctioned norms of behaviour
3. Internally enforced standards of conduct
 1. Meaningful only in terms of informal constraints, altering choices when individuals give up wealth or income for some other value

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Ellickson on dispute resolution among neighbours in Shasta county

1. Studies of committee work in parliaments
2. To go to a duel or not: all arguments say no, but still ...that is how disputes between gentlemen are settled.
3. Abundant qualitative and quantitative evidence that the lower the price of ideas, ideologies, and convictions, the more they matter and affect choices

Explanations of institutions

- Conventions to solve coordination problems
- Making exchange viable by lowering transaction costs through organisations supporting norms of cooperation and instruments lowering measurement costs
 - Altering discount rates
 - Increasing information
- Positive payoffs to honesty, integrity, and living up to a reputation

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North (1990:42) “We simply do not have any convincing theory of the sociology of knowledge that accounts for the effectiveness (or ineffectiveness) of organized ideologies or accounts of choices made when the payoffs to honesty, integrity, working hard, or voting are negative.”

North (1990:44) “What determines how much people will pay to express and act on their convictions?”

“The long-run implications of the cultural processing of information that underlies informal constraints is that it plays an important role in the incremental way by which institutions evolve and hence is a source of path dependence.”

North (1990:45) “Equally important is the fact that the informal constraints that are culturally derived will not change immediately in reaction to changes in the formal rules.”

Also, this has implications for the way societies change.

Formal constraints

- Formal rules can complement and increase the efficiency of informal rules by lowering T-costs
- They may also be intended to replace informal rules, but that is difficult.
- Hierarchical (constitutions, statute law, common law, specific bylaws, contracts)
- Their function is to promote certain kinds of exchanges, but not all kinds of exchanges

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Ostrom 1986 on formal rules

1. **Position rules** that specify a set of positions and how many participants hold each position
2. **Boundary rules** that specify how participants are chosen to hold these positions and how participants leave these positions
3. **Scope rules** that specify a set of outcomes that may be affected and the external inducement and/ or costs assigned to each of these outcomes
4. **Authority rules** that specify the set of actions assigned to a position at a particular node
5. **Aggregation rules** that specify the decision function to be used at a particular node to map action into intermediate or final outcomes
6. **Information rules** that authorise channels of communication among participants in position and specify the language and form in which the communication will take place

Devising rules

- Rules are in good part devised in the interest of individual well-being rather than social well-being
- Rules are in general devised with compliance costs in mind
- Changes in technology or relative prices will alter the relative gains from devising rules

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North (1990:48) “In many cases, the costs of measurement, given the technology of the time, exceed the gains, and rules are not worth devising and ownership rights are not delineated.”

Developmental history

- Simple state: ruler as discriminating monopolist selling protection and justice
- Adding a representative body facilitating exchange between ruler and constituent groups. The ruler needs an administration.
- Democratic states and complex polities: how do credible commitments evolve to cover future payoffs on completely different issues?

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Empirical studies of the evolution of the committee system in the US congress.

The evolution is seen as providing greater efficiency. And indeed it is a move towards greater POLITICAL efficiency. But it would be wrong to assert that the result is efficient political markets in the same sense as we mean efficient economic markets.

Democracy

- Reduces the legislative transaction costs (per exchange) but
 - Number of exchanges increase
 - Agency costs between constituent and legislator, and between legislator and bureaucrat are substantial
 - Rational ignorance of constituents increases the role of subjective perceptions for choices

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North (1990:51) “The point is that formal political rules, like formal economic rules, are designed to facilitate exchange but democracy in the polity is not to be equated with competitive markets in the economy. The distinction is important with respect to the efficiency of property rights.”

From political to economic rules

- “ But the high transaction costs of political markets and subjective perceptions of the actors more often have resulted in property rights that do not induce economic growth, and the consequent organisations may have no incentive to create more productive economic rules.” (North 1990:52)

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Pointing to the path dependence we shall learn more about later.

Enforcement

- Is not perfect and not constant, it is variable
 - Because of variable measurement costs of contract performance
 - Because of personal agenda's of enforcement agents
- Contracts are self-enforcing when it pays the parties to live up to them, that is when parties know each other and dealings are repeated
- In a world of specialization where exchange needs to extend through space and time self-enforcing contracts are not possible – in theory

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Yet, in the real world it has been done by such mechanisms as exchange of hostages, and ostracism of merchants who reneged on agreements. Reputations, kinship ties, various forms of loyalty, minority groups in societies bound together by a common belief in a hostile world, all played a role for making living up to agreements worthwhile.

Impersonal exchange without third party enforcement

- Game theory: it is possible if games are played forever between the same players and compliance by other parties is observable
- In the real world such conditions do not obtain. Impersonal exchange does not seem possible without third party enforcement
- Are voluntary third party systems too costly?
- Can a state behave like an impartial third party?

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In a world of positive transaction costs, such as incomplete information, cooperative solutions need institutions that provides individuals with sufficient information to police deviations from contracts.

Because punishment is costly, institutions must provide the agents who performs the punishment with incentives.

The State as third party

- Third-party enforcement means the development of the state as a coercive force able to monitor property rights and enforce contracts effectively
- **No one knows how to create such an entity**
- In a wealth maximizing model those who run such a state will use the force of the state in their own interest at the expense of the rest of society

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Achieving third party enforcement in contracting is a major dilemma for economies that would engage in impersonal exchange.

North (1990:59) “In developed countries, effective judicial systems include well specified bodies of law and agents such as lawyers, arbitrators, and mediators, and one has some confidence that the merits of a case rather than private payoffs will influence outcomes. In contrast, enforcement in Third World economies is uncertain not only because of ambiguity of legal doctrine (a measurement cost), but because of uncertainty with respect to behaviour of the agent.”

Transaction and transformation costs

- Costs of transforming land, labour and capital to goods and services depends on technology employed **and institutions**
- Contracts are written with enforcement costs in mind, and will therefore be incomplete and open to informal constraints (reputation, standards of conduct, conventions based on repetitions)

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For example: a tax on imported steel make it possible for US steel makers to keep on producing with their existing technology rather than take the cost of changing to a competitive technology.

Also compare de Soto's description of small shop production being caused by lack of property rights in land and buildings, and insecurities in contracting.

Rights and constraints in an exchange: three levels

- Single straightforward exchange
 - Ex: buying real estate in the USA
- Transaction costs in a production process
 - See discussion of problems in third world
 - Institutions affect choice of technology
- Transaction cost at the level of society
 - Ex: capital market

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Institutional matrix of the transaction

- Hierarchy of legal rules in USA

- Informal constraints supplementing and reinforcing formal rules

Some rules will increase transaction costs – such as rules that restrict entry, require useless inspections, raise information costs, or make property rights less secure.

Rules are made in a polity. Because the political market is imperfect institutions everywhere are a mixed bag composed of those that lower costs and those that raise them.

Buying a house

- Institutions affect the costs of buying a house. The costs are among others
 - Measuring the physical and legal attributes of the house
 - Policing and enforcing an agreement
 - Uncertainty discount reflecting the imperfections in measuring attributes and policing the agreement
 - Depends on asymmetric information (contract specific), effectiveness of crime prevention (community specific), and stability of prices (nation specific)

Implications

- Institutions are a complex web of formal and informal constraints. This provides a basic stability, and also a host of margins where incremental changes may accumulate
- The higher the formal transaction costs, the more one will rely on informal rules (self-enforcing)
- Hard-to-measure costs such as time to acquire information, queuing, bribery, etc, losses due to imperfect monitoring and enforcement, imply that total transaction costs are hard to measure

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Comparing developed and developing countries makes it clear that the “institutional framework is the critical key to the relative success of economies, both cross-sectional as well as through time.”(p.69).

North Ch 4 (1)

- Measurement costs are important because of asymmetric information (adverse selection, moral hazard)
- Measurement costs + enforcement costs = transaction costs
- Explains why property rights are not perfectly specified

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North (1990:31) “As a generalization, the more easily others can affect the income flow from someone’s assets without bearing the full costs of their actions, the lower is the value of that asset. As a result, the maximization of an asset’s value involves the ownership structure in which those parties who can influence the variability of particular attributes become residual claimants over those attributes. In effect they are then responsible for their actions and have an incentive to maximize the potential gains from exchange.”

North Ch 4 (2)

- Enforcement
 - Policing agents: increasing marginal costs of measuring and policing performance
 - The agent acquires certain property rights in their own labour
- First party: principal disciplining agent
- Second party: friends, associates, kin
- Third party: the state

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Compare the discussion of de Soto and the uncertainty of trade in the extra legal sector

North (1990:35) “One cannot have the productivity of a modern high income society with political anarchy. Indeed, effective third-party enforcement is best realized by creating a set of rules that then make a variety of informal constraints effective. Nevertheless, the problems of achieving third-party enforcement of agreements via an effective judicial system that applies, however imperfectly, the rules are only very imperfectly understood and are a major dilemma in the study of institutional evolution.”

North Ch 5 (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

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North (1990:37) “Where do informal constraints come from? They come from socially transmitted information and are a part of the heritage we call culture. The way the mind processes information depends “upon the brain’s ability to learn by being programmed with one or more elaborately structured natural languages that code for perceptual, attitudinal and moral (behavioral) as well as factual information” (Johansson 1988:176)”

Johansson, S.Ryan 1988 “The computer paradigm and the role of Cultural Information in Social Systems” Historical Methods 21:172-88

North Ch 5 (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 (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 (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 politics 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 (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 (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 (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 (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

Evaluation of Constitutions

Goodin (1997) discuss 4 commonly agreed upon requisites of a good constitution

- 1. democratic responsiveness
- 2. checking the abuse of power
- 3. protecting the minorities
- 4. social pluralism

North Ch 9

Organisations, learning, and institutional change

- Organisations develop a demand for knowledge and skills (and generate tacit knowledge of their own activities)
 - Property rights (patents) has helped create the innovation feature of western economies
 - Technological innovations are path dependent
 - Ideology and knowledge directs the attention of investigations but also develops by new insights

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North (1990:73) “Organisations will be designed to further the objectives of their creators. They will be created as a function not simply of institutional constraints but also of other constraints (e.g. technology, income, and preferences).”

By playing the game participants develop skills and perceptions of needs for knowledge (tacit and communicable knowledge)

(1990:73) “The kinds of knowledge, skills, and learning that members of an organisation will acquire will reflect the payoff – the incentives – imbedded in the institutional constraints.”

This structure of demand will profoundly affect the development of the stock of knowledge of a society.

And in general we have the Thomas theorem: “If people believe a phenomenon to be real it is real in its consequences.”

(1990:76) “People’s perceptions that the structure of the rules of the system is fair and just reduce the cost; equally, their perception that the system is unjust raises the cost of contracting (given the costliness of measurement and enforcement of contracts).”

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!

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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 (increasing unit costs)
 - Learning effects (improved products, lower costs)
 - Coordination effects (several agents using the same)
 - Adaptive expectations (further belief in prevalence)

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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)

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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,)?
 - oMonitoring: how do you organise controls so that no one takes more than agreed and that everyone pays his/ her share of the cost?
 - oSanctioning: 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

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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.

Ch 12: Institutions, economic theory and economic performance

In this chapter **performance**

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

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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

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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.

Ch 13: 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?

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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 behaviour
- 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.”