

Preliminary Notes

1. Using Cmap Tools from IHMC (<http://cmap.ihmc.us/>), I created a concept map of the lecture that Douglass C. North delivered in 1993 when he was awarded the Nobel Prize in Economics. Titled "Economic Performance through Time," the lecture is available at http://nobelprize.org/nobel_prizes/economics/laureates/1993/north-lecture.html.
2. If you have Cmap Tools installed on a computer, you can access the map directly and use all its features, including the ability to mouse-over a concept and see quotes from North's lecture as they relate to the concept. Open Cmap Tools and use the Views – Cmap Tools window to migrate to Shared Cmaps in Places > IHMC Public Cmaps (3) > Users > garymlewis > Economic Change (North) and open the map called North.
3. You may download and install Cmap Tools from <http://cmap.ihmc.us/download/>. It is free for educational institutions, employees of the U.S. Federal government, and for individual non-commercial use.
4. Otherwise you can use a browser to access several versions of the concept map. These versions do not include the mouse-over feature with North's quotes. However, the quotes appear below in this document. There are three HTML versions that vary by the level of detail shown in the map. I recommend that you look at all three in order from least detail to most detail, and then use the most detailed map to coordinate with North's quotes listed below. Use the following links in the order listed:

http://cmapspublic3.ihmc.us:80/servlet/SBReadResourceServlet?rid=1206976488671_1744107571_17469&partName=htmltext

http://cmapspublic3.ihmc.us:80/servlet/SBReadResourceServlet?rid=1206976488671_666361943_17468&partName=htmltext

http://cmapspublic3.ihmc.us:80/servlet/SBReadResourceServlet?rid=1206976488671_2003611235_17470&partName=htmltext

Concept Map

Focus Question: "Economic history is about the performance of economies through time. ... This essay ... provides the initial scaffolding of an analytical framework capable of increasing our understanding of the historical evolution of economies and a necessarily crude guide to policy in the ongoing task of improving the economic performance of economies." (North)

Annotation: This is a concept map based on the Nobel Prize Lecture "Economic Performance through Time," by Douglass C. North, December 9, 1993, as interpreted by me March 28, 2008. Notes: 1. Click on the drop-down menu in the Focus Question to link to North's 1993 Nobel Lecture. 2. Concept objects that contain a right-tab of >> can be expanded to show more details. Those with a << can be collapsed. 3.

Most concept objects are elaborated with quotes from North's lecture. To make these visible, place the mouse cursor over the object.

Time 0

Scarcity: "The analytical framework is a modification of neo-classical theory. What it retains is the fundamental assumption of scarcity and hence competition." (North)

Bounded Rationality: "Individuals typically act on incomplete information and with subjectively derived models that are frequently erroneous; the information feedback is typically insufficient to correct these subjective models." (North)

Markets: "Neo-classical theory is simply an inappropriate tool to analyze and prescribe policies that will induce development. It is concerned with the operation of markets, not with how markets develop. How can one prescribe policies when one doesn't understand how economies develop? ... It is the polity that defines and enforces property rights and in consequence it is not surprising that efficient economic markets are so exceptional." (North)

Other Means: None.

Transaction Costs: "Transaction costs are the costs of specifying what is being exchanged and of enforcing the consequent agreements.... The neo-classical result of efficient markets only obtains when it is costless to transact. ... When it is costly to transact then institutions matter." (North)

Uncertainty: "The rational choice framework assumes that individuals know what is in their self interest and act accordingly. That [assumption] ... is patently false in making choices under conditions of uncertainty - the conditions that have characterized the political and economic choices that shaped (and continue to shape) historical change." (North)

Rules of Game: "It is the interaction between institutions and organizations that shapes the institutional evolution of an economy. If institutions are the rules of the game, organizations and their entrepreneurs are the players." (North)

Rules of Game >> Institutions: "Institutions are the humanly devised constraints that structure human interaction. ... Institutions are not necessarily or even usually created to be socially efficient; rather they, or at least the formal rules, are created to serve the interests of those with the bargaining power to create new rules." (North)

Rules of Game >> Constraints: "They [institutions] are made up of formal constraints (rules, laws, constitutions), informal constraints (norms of behavior, conventions, and self imposed codes of conduct), and their enforcement characteristics. ... It is the admixture of formal rules, informal norms, and enforcement characteristics that shapes economic performance. While the rules may be changed overnight, the informal norms usually change only gradually. Since it is the norms that provide "legitimacy" to a set of rules, revolutionary change is never as revolutionary as its supporters desire and performance will be different than anticipated." (North)

Rules of Game >> Constraints >> Formal: None.

Rules of Game >> Constraints >> Enforcement: None.

Rules of Game >> Constraints >> Informal: None.

Rules of Game >> Constraints >> Mental Models: None.

Rules of Game >> Constraints >> Beliefs: "The beliefs that individuals, groups, and societies hold which determine choices are a consequence of learning through time - not just the span of an individual's life or a generation of a society but the learning embodied in individuals, groups, and societies that is cumulative through time and passed on intergenerationally by the culture of a society. ... Belief structures get transformed into societal and economic structures by institutions - both formal rules and informal norms of behavior." (North)

Players of Game: "It is the interaction between institutions and organizations that shapes the institutional evolution of an economy. If institutions are the rules of the game, organizations and their entrepreneurs are the players." (North)

Players of Game >> Individuals: None.

Players of Game >> Entrepreneurs: None.

Players of Game >> Organizations: "Organizations are made up of groups of individuals bound together by some common purpose to achieve certain objectives. Organizations include political bodies (political parties, the Senate, a city council, regulatory bodies), economic bodies (firms, trade unions, family farms, cooperatives), social bodies (churches, clubs, athletic associations), educational bodies (schools, universities, vocational training centers). ... The organizations that come into existence will reflect the opportunities provided by the institutional matrix." (North)

Players of Game >> Organizations >> Economic: None.

Players of Game >> Organizations >> Political: None.

Players of Game >> Organizations >> Social: None.

Players of Game >> Organizations >> Educational: None.

Incentive Structures: "Institutions form the incentive structure of a society and the political and economic institutions, in consequence, are the underlying determinant of economic performance. ... Incentives embodied in belief systems as expressed in institutions determine economic performance through time, and however we wish to define economic performance the historical record is clear. Throughout most of history and for most societies in the past and present, economic performance has been anything but satisfactory. ... Explaining the pace and direction of economic change throughout history presents a major puzzle." (North)

Choices: "The rational choice framework assumes that individuals know what is in their self interest and act accordingly. That [assumption] ... is patently false in making choices under conditions of uncertainty - the conditions that have characterized the political and economic choices that shaped (and continue to

shape) historical change. ... Economic change is a ubiquitous, ongoing, incremental process that is a consequence of the choices that individual actors and entrepreneurs of organizations are making every day. While the vast majority of these decisions are routine, some involve altering existing "contracts" between individuals and organizations. Sometimes that recontracting can be accomplished within the existing structure of property rights and political rules; but sometimes new contracting forms require an alteration in the rules. In [this] instance, institutions are being altered." (North)

Investments: None.

Factors of Production: None.

Factors of Production >> Land: None.

Factors of Production >> Labor: None.

Factors of Production >> Capital: None.

Technology: "An essay by Wallis and North (forthcoming) is a beginning at integrating technological and institutional analysis." (North) [Note from Gary Lewis: This paper was published as Wallis, John J. and North, Douglass C., "Integrating Institutional Change and Technical Change in Economic History: A Transaction Costs Approach," Journal of Institutional and Theoretical Economics, 1994.]

Production Costs: "Institutions and the technology employed determine the transaction and transformation costs that add up to the costs of production." (North)

Production Costs >> Transaction Costs: None.

Production Costs >> Transformation Costs: None.

Economic Performance: None.

Exogenous: "This approach will contribute to our understanding of the complex interplay between institutions, technology, and demography in the overall process of economic change. A complete theory of economic performance would entail such an integrated approach to economic history. We certainly have not put all the pieces together yet." (North)

Exogenous >> Technology: None.

Exogenous >> Demography: None.

Exogenous >> Other: None.

Duration of Time T

Competition: "The rate of learning will reflect the intensity of competition amongst organizations. Competition, reflecting ubiquitous scarcity, induces organizations to engage in learning to survive. The

degree of competition can and does vary. The greater the degree of monopoly power the lower the incentive to learn." (North)

Learning in Players of Game: "Time as it relates to economic and societal change is the dimension in which the learning process of human beings shapes the way institutions evolve. ... The most fundamental long run source of change is learning by individuals and entrepreneurs of organizations. ... History demonstrates that ideas, ideologies, myths, dogmas, and prejudices matter; and an understanding of the way they evolve is necessary for further progress in developing a framework to understand societal change. ... The analytical framework we must build, must originate in an understanding of how human learning takes place. ... Learning entails developing a structure by which to interpret the varied signals received by the senses. ... The structures consist of categories - classifications that gradually evolve from earliest childhood to organize our perceptions and keep track of our memory of analytic results and experiences. Building on these classifications, we form mental models to explain and interpret the environment. ... Both the categories and the mental models will evolve, reflecting the feedback derived from new experiences: feedback that sometimes strengthens our initial categories and models or may lead to modifications - in short, learning." (North)

Learning in Players of Game >> Individuals: None.

Learning in Players of Game >> Entrepreneurs: None.

Learning in Players of Game >> Groups: None.

Learning in Players of Game >> Organizations: None.

Learning in Players of Game >> Societies: None.

Learning in Players of Game >> Culture: "Collective learning ... consists of those experiences that have passed the slow test of time and are embodied in our language, institutions, technology, and ways of doing things. ... It is culture that provides the key to path dependence - a term used to describe the powerful influence of the past on the present and future." (North)

New Mental Models: "Mental models are the internal representations that individual cognitive systems create to interpret the environment; institutions are the external (to the mind) mechanisms individuals create to structure and order the environment. ... Both institutions and belief systems must change for successful reform since it is the mental models of the actors that will shape choices." (North)

Expected Pay-offs: "The speed of economic change is a function of the rate of learning but the direction of that change is a function of the expected pay-offs to acquiring different kinds of knowledge. The mental models that the players develop shape perceptions about the pay-offs. ... The source of the changed perceptions may be exogenous to the economy - for instance a change in the price or quality of a competitive product in another economy that alters perceptions of entrepreneurs in the given economy about profitable opportunities." (North)

Redescription: "The capacity [of humans] to generalize from the particular to the general and to use analogy is a part of this redescription process. It is this capacity that is the source not only of creative thinking but also of the ideologies and belief systems that underlie the choices humans make." (North)

Exogenous: See entry in Time 0.

Time T

All notes are identical to those in Time 0.