



HISTORICAL AND INSTITUTIONAL ANALYSIS IN ECONOMICS

THE CASE OF ANALYTIC NARRATIVES

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Introduction

- There have been several attempts to articulate economic theory and tools with history since the 19th century
 - 1870-1960: Historical institutionalism (German historical school of economics, American institutionalism, Polanyi)
 - Since the 1960s: New economic history (or “cliometrics”)
- Historical institutionalism was characterized by its commitment both to “historicize theory” and to “theorize history” by emphasizing the importance of **institutions**
- A more recent research program tries to combine historical and institutional analysis in economics: the **analytic narrative** (AN) approach

- Strictly speaking, AN is a methodology combining the narrative approach constitutive of most historical works with the analytic tools and theories mostly used in economics and political science
 - These analytic tools and theories actually correspond to rational choice theory and more specifically to **game theory**
- Combined with a broad “new institutionalist” theoretical framework, AN provides a distinctive way to account for the nature, the functioning and the dynamics of institutions
- **Main claim:** the AN methodology is especially relevant in the context of a non-behaviorist and non-individualist account of institutions
 - Game-theoretic models used in the AN approach allow for the identification of **institutional mechanisms** that cannot be reduced to individualistic explanans
 - The AN approach points out the importance of **non-observables** features in the institutional analysis (beliefs, norms, rules, reasoning modes)
- AN sustains a “**rules-in-equilibrium**” view of institutions

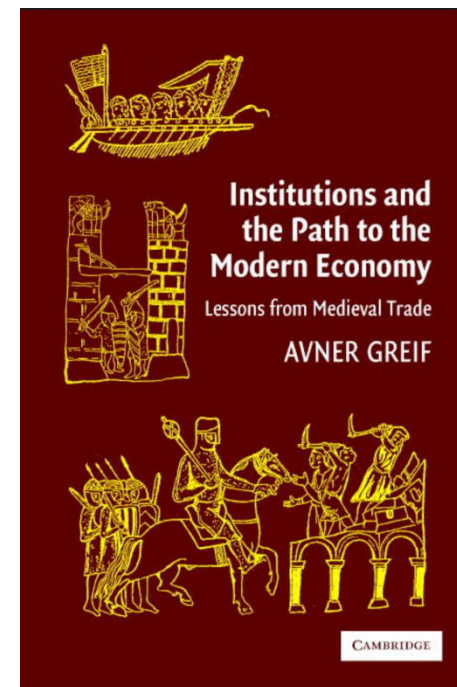
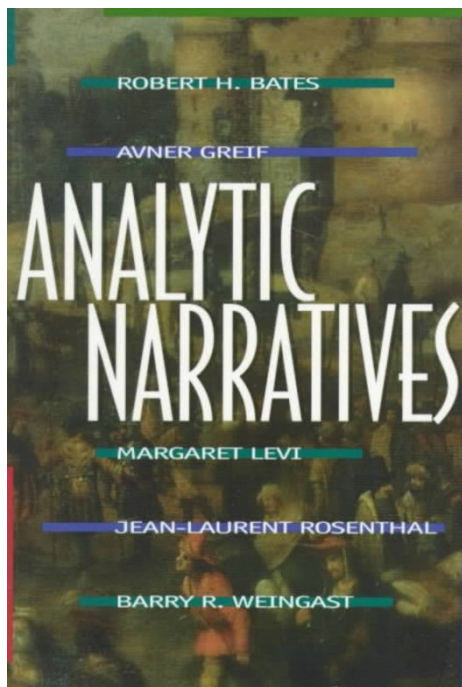
Outline

- 1) AN and institutional analysis: principles and examples
- 2) Some critiques against the AN approach for institutional analysis
- 3) The AN methodology and the identification of institutional mechanisms
- 4) AN and the importance of “non-observables”
- 5) The “rules-in-equilibrium” view of institutions
- 6) Some remaining challenges

AN and institutional analysis: principles and examples

- AN is a general methodological approach that combines the narrative methodology constitutive of history and the analytic tools of economics and political science (essentially game theory)
- In principle, AN can be used to study a great variety of historical issues and case studies belonging to economics and political science, but also to military history (e.g. Mongin 2017)
- In practice, AN is essentially used as a method for **institutional analysis**, i.e. the study of economic and political institutions and how they affect socioeconomic outcomes

- The AN methodology in the context of institutional analysis has been essentially laid out in two important books
 - Bates R., Greif A., Levi M., Rosenthal J-L. and Weingast B., *Analytic Narratives*, 1998.
 - Greif A., *Institutions and the Path to the Modern Economy. Lessons from Medieval Trade*, 2006.



- “Our approach is narrative; it pays close attention to stories, accounts, and context. It is analytic in that it extracts explicit and formal lines of reasoning, which facilitate exposition and explanation” (Bates et al. 1998: 10)
- “By modeling the processes that produced the outcomes, we seek to capture the essence of stories. Should we possess a valid representation of the story, then the equilibrium of the model should imply the outcome we describe – and seek to explain. Our use of rational choice and game theory transforms the narratives into analytic narratives. Our approach therefore occupies a complex middle ground between ideographic and nomothetic reasoning” (Bates et al. 1998: 12)
- “Our project represents a means of connecting the seemingly unique event with standard social science methods. First, we model a portion of the critical dynamics in a way that affords tests of parts of the idea... Second, we go farther and attempt to use the single case to generate hypotheses applicable to a larger set of cases” (Bates et al. 2000: 697)

- Institutional analysis building on AN invariably proceeds on the basis of a historical case-study with well-defined geographical and temporal scopes
 - A first narrative is constructed on the basis of archives and other historical materials
 - The role of this first narrative is to identify the explanandum (e.g. a given economic outcome) and to form an hypothesis regarding the explanans (e.g. a specific institution and its functioning)
- A game-theoretic model is then built to test the hypothesis
 - The model is thought to capture the salient characteristics of the historical case under study (identity of the players, preferences and beliefs, strategies available, distribution of the information...)
 - The hypothesis is validated if and only if the equilibrium of the model qualitatively corresponds to the outcome
- A second narrative is finally offered to take into account the model's results
 - The first narrative is eventually revised
 - Predictions regarding other relevant outcomes are made and some generalization is attempted

Some examples (1/2)

- Casari M., “Emergence of Endogenous Legal Institutions: Property Rights and Community Governance in the Italian Alps.”, *Journal of Economic History*, 2007
 - Explanandum: management of common resources (pasture and forests) in the Trentino region from 1200 to 1800
 - Explanans: private-order governance through a legal institution (*Carte di Regola*)
- Greif A., “Contract Enforceability and Economic Institutions in Early Trade: The Maghribi Traders’ Coalition.”, *American Economic Review*, 1993
 - Explanandum: Existence of long distance trade in the Mediterranean area in the 11th century
 - Explanans: reputation-based community enforcement mechanism

Some examples (2/2)

- Milgrom P., North D. and Weingast B., “The Role of Institutions in the Revival of Trade: The Medieval Law Merchant, Private Judges, and the Champagne Fairs.” *Economics and Politics*, 1990
 - Explanandum: contract enforcement at the Champagne fairs in the 12th and 13th centuries
 - Explanans: Law merchant system implementing courts endowed with coercive powers
- Rubin J., “Institutions, the Rise of Commerce and the Persistence of Laws: Interest Restrictions in Islam and Christianity.” *Economic journal*, 2011
 - Explanandum: historical divergence regarding interest restrictions in Christianity and Islam between 1000 and 1800
 - Explanans: extent of the political authorities’ dependence on religion authorities for ensuring legitimacy

Some critiques against the AN approach

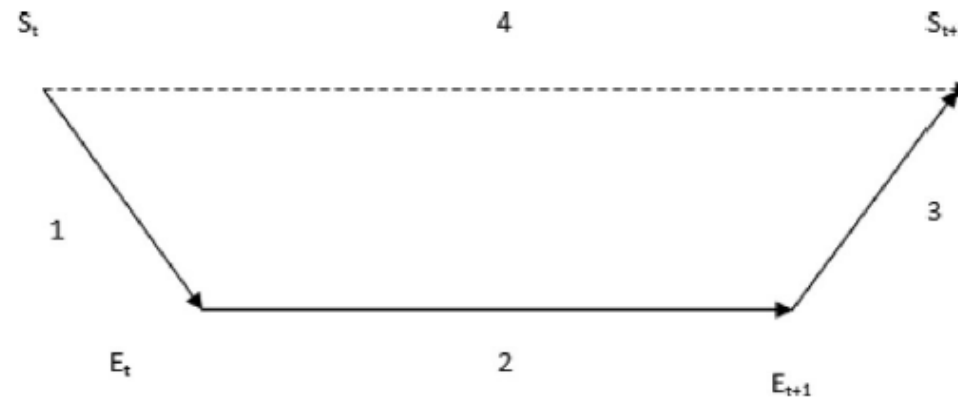
- AN has attracted a great deal of criticisms from scholars belonging to different disciplines
- Jon Elster (“Rational Choice History: A Case of Excessive Ambition.” *American Political Science Review*, 2000) makes three general critics against the AN project:
 - 1) The historical case studies are often ill-chosen because not amenable to a treatment through the AN methodology
 - 2) The applications of rational choice theory are inappropriate (wrong models and wrong solution concepts)
 - 3) Rational choice theory is intrinsically of limited interest to tackle historical cases due to its inability to account for “irrational” and emotional behaviors and motivations

- The economic historian Gregory Clark also makes several critiques in a review of Greif’s book (*Journal of Economic Literature*, 2007):
 - 1) Game-theoretic models establishing the (in)efficiency of an institution are unhelpful to provide a quantitative estimate of the role of this institution in economic growth
 - 2) The original purpose to give new micro-foundations to institutional analysis is lost as most specific accounts of historical cases rely on “non-economic” concepts
 - 3) The explanation gives too much importance to “non-observables” such as beliefs and norms, essentially due to the problem of multiple equilibria
 - 4) The AN method applied to institutional analysis leads to blur the distinction between evidence and hypothesis
- Elster’s and Clark’s critiques partially overlap...
 - AN fails to provide direct evidence of the actors’ intentions and beliefs and at best only offers conjectures regarding the historical cases
- ... but also diverge on significant points (e.g. rational choice theory)

The AN methodology and the identification of institutional mechanisms

- The AN methodology used in the context of institutional analysis seeks to identify an **institutional mechanism** responsible for a given relevant economic outcome
 - Institutional mechanism: a relation between a set of institutional elements (rules, norms, conventions...) and a behavioral pattern
- An institutional mechanism typically encompasses three kinds of social mechanisms:
 - Situational mechanisms
 - Action-formation mechanisms
 - Transformational mechanisms
- Game-theoretic models capture these three kinds of mechanisms at once

- AN thus looks for the kind of micro-explanations as characterized by Coleman’s diagram



- The identification of institutional mechanisms is made through a three-step process of abduction-deduction-induction (Peirce’s schema of scientific explanation)
 - Abduction is a hypothesis-generating process building on theoretical knowledge and historical material
 - Deduction is made through a game-theoretic model
 - Induction is a hypothesis-validation process where the results of the model are put against the historical material
- As the induction stage contributes to revise both the theory and the original narrative, the process is circular and gives the impression to conflate evidence and hypothesis

- The fact that AN seeks for micro-explanations does not imply however that the institutional analysis is “micro-founded”
 - The narrative refers to a context with given historical, religious, cultural, geographical features
 - These features figure most of the times as exogenous elements within the game-theoretic model, determining both the structure of the model and the value of its parameters
 - A game-theoretic model is typically constituted of “individual” features (e.g. agents’ preferences), “collective” features (e.g. events/propositions that are common knowledge) and “structural” features (e.g. strategies available)
- An institutional mechanism is a complex set of elements that cannot be entirely reduced to individuals’ preferences, beliefs and choices
- Institutions can be made partially endogenous through the identification of “quasi-parameters”
 - Endogeneity of institutions cannot be entirely micro-founded

AN and the importance of “non-observables”

- Institutional analysis building on AN typically emphasizes the important of non-observable features in the explanation of economic outcomes
 - Individuals’ beliefs and intentions
 - Values and norms
 - Reasoning processes
- In particular, ANs are strongly grounded on **derived** intentional states
 - Many ANs attribute intentional states (beliefs, desires, intentions) to individual actors to make sense of their behavior
 - These derived intentional states are a constitutive part of the institutional mechanisms captured through game-theoretic models
- In a behaviorist of “revealed-preference” perspective, such reliance on non-observables is deemed to be problematic

- A purely behaviorist account of institutions seems however to be either impossible or uninteresting
 - If institutions are merely observed behavioral patterns, then all animals have institutions!
 - Cannot explain **why** the individuals make the choices they make
- Plausible answer: individuals’ behaviors have to be explained in terms of incentives and opportunity costs that depend on the institutional structure (e.g. market prices)
 - However, incentives and opportunity costs are not always directly observables and must be **derived** through the institutional analysis
- Even when actors’ intentions and beliefs are stated in historical archives some kind of interpretation remains necessary
 - Game-theoretic models are then useful to help to generate and test the implications of non-observables, especially intentional states

- Institutional analysis building on AN thus requires to take the **intentional stance**
 - We account for individuals’ behavior by ascribing to them intentional states
- Taking the intentional stance requires to use some form of triangulation where:
 - Individuals are assumed to be minimally rational
 - Some kind of socioeconomic and cultural context is taken as given
- The behavioral pattern that characterizes an institution is thus the result of a complex interaction between non-observable elements
 - Individuals’ minds (i.e. intentional states)
 - Social scaffoldings (i.e. norms, rules, conventions)
- The AN provides a method to **infer** these elements

The “rules-in-equilibrium” view of institutions

- AN sustains an institutional analysis that makes perfect sense on the “rules-in-equilibrium” view of institutions
- Standard accounts of the nature of institutions take the latter to be either
 - Rules constraining individuals’ behavior (“institutions-as-rules”)
 - Behavioral patterns corresponding to some game-theoretic equilibrium (“institutions-as-equilibria”)
- The institutions-as-rules view does not account for why individuals follow rules
- The institutions-as-equilibria makes sense in a behaviorist perspective but downplays the importance of the individuals’ reasoning process
- On the rules-in-equilibrium view, institutions correspond to practices where individuals follow a set of rules
 - Rules shape individuals’ beliefs, intentions, preferences and reasoning modes

- The characterization of an institution necessitates to identify the set of rules followed by individuals
- To follow a rule is nothing but to have the specific beliefs and preferences that result in the corresponding behavior
 - Thus, rules account for beliefs and preferences which in turn explain behavior
- Rules are followed if and only if they are self-enforcing
 - Whether or not a rule is self-enforcing depends on the cultural, geographical, technological context as well as on the individuals' psychology

The identification of institutional mechanisms through the AN methodology thus consists in inferring the rules that are followed by individuals in a given context

Some remaining challenges

- The AN methodology provides a way to articulate economic theory and history that is quite distinct from quantitative economic history
 - Institutional analysis building on AN is seeking for a reconciliation of nomothetic and ideographic forms of scientific reasoning
 - Any institutional analysis applying the AN methodology has two characteristics:
 - It is committed to the identification of institutional mechanisms
 - The explanandum essentially consists in non-observable features
- The “rules-in-equilibrium” view of the nature of institutions particularly fits well with this methodological approach

- The AN methodology is still confronted to significant challenges
- The conflation between hypothesis, conjectures and results remains problematic, at least on a “positivist” view of science
- In some cases, as in Greif’s book, the institutional analysis also builds on a “meta-narrative” that aims at articulating the various specific case studies which **is not** supported by a game-theoretic model
 - The methodological and theoretical foundations of this meta-narrative are less secured
 - Relationship with historical institutionalism?