

Dynamics of social, political, and economic institutions

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Human freedom and prosperity have varied enormously among and within countries and regions and have changed drastically over short periods. Social sciences research has begun to illuminate how norms and cultures, as well as legal, political, economic, and social institutions, affect freedom and prosperity, but our understanding of how and why these institutions change remains meager. The researchers who gathered at the National Academy of Sciences in 2010 for a Sackler Symposium sought to give a kick-start to the study of institutional dynamics.

The papers presented vary both in their research methods and in the questions they address. The methods range from theory to econometric studies to detailed cases studies, each seeking to highlight some aspect of how institutions change and what accounts for the differences in institutions that emerge in different settings.

Two of the papers in this volume are analyses of stochastic dynamic systems. One captures a process of contagion by which the new norms governing bilateral exchange may invade a population and become widespread. The other studies the evolution of authority in a society with far-sighted decision makers, who sometimes rationally allow erosion in their long-term control to promote sufficiently better short-term outcomes.

The first of these is Peyton Young's "The Dynamics of Social Innovation" (1), which studies the evolution of norms to be used in bilateral interactions. Agents in Young's network model correspond to nodes that interact with their immediate neighbors and earn payoffs in each interaction that depend on how each party behaves. The agents experiment and learn, so behavior in the system can evolve. The paper discusses how the topology of the network, characteristics of individual learning processes, and the size of the potential improvement affects whether norms are adopted, and how quickly. It turns out that a critical property that superior norms (ones that leads to higher payoffs for all) must have for "fast" adoption is that it must be possible for all members of some local clusters of nodes to profit by adopting the norm, even when the other agents in the network do not adopt. This determinant in turn depends on the size of the gains to adopting the norm, as well as on the nature of the network. The nature of the learning process matters, too. For example, too much

experimentation can cause a local group to unlearn their superior norm before it has a chance to spread into the rest of the network.

The second is "A Political Model of Social Evolution" by Daron Acemoglu, Georgy Egorov, and Konstantin Sonin (2), which studies how undemocratic and authoritarian regimes may become progressively more democratic. In their model, choices are made by a changing set of individual decision makers, who rule according to a voting system. Sometimes expanding participation can lead to greater short-run payoffs at the expense of less control in the longer term, and authoritarian regimes may sometimes accept immediate gains even at the risk of reduced control over the longer run. The model provides a framework for studying how the initial state of the system, the payoffs to different actions, and the nature of voting systems affect long-run outcomes of the system. In particular, outcomes can be history-dependent, and change emerges as the combined result of random events and actual choices by the ruling class.

Four of the papers provide general schemata for thinking about a set of issues, from regional and national political leadership and how it affects the evolution of democracy, to the role of international institutions, to the role of norms in promoting economic development both overall and at different stages in development.

Roger Myerson's "Toward a Theory of Leadership and State-Building" (3) surveys his analyses of the problem of nation building, which has both ancient and modern application. The fundamental issues in Myerson's perspective revolve around problems of leadership. On one hand, to gain followers, new leaders must successfully distribute patronage, particularly in times when and places where following the new leader is dangerous. However, the system also needs to provide discipline for the leader, so that promises are kept once the leader gains power. Additionally, for democracy to thrive, it needs to encourage the development of leaders who can establish the credentials and following needed to challenge the existing authority. The paper develops a wide perspective on the groundwork that needs to be laid for nation building, that is, for promoting the development of systems that can evolve into functioning democracies.

Stephen Krasner's "Changing State Structures: Outside In" (4) considers different situations in which, and channels

through which, some states deploy purposive strategies to exercise power over other states. His classification covers (i) contracting with basically voluntary agreement of the state that is subject to the influence, (ii) coercion that forces a weaker state to take a particular action or substantially limits its choice set, (iii) institutional power, whereby the stronger state sets the rules of the game of decision-making in the weaker state, (iv) constitutive power, whereby the stronger state establishes the international system within which the weaker state must operate, and (v) productive power, which alters the identities and capabilities of actors in the weaker state. These provide a useful taxonomy and examples for thinking about the interaction between different countries' institutions and international institutions and organizations.

"Development, Social Norms, and Assignment to Task" by Marcel Fafchamps (5) traces some broad trends in the dynamics of social norms that are required to support different stages in the process of economic development. Developing economies move to greater specialization of labor, requiring more complex interactions to determine efficient allocation of labor to tasks. In the least-developed economies, production occurs in almost self-contained households where workers must be jacks-of-all-trades. As economies develop, families become the basis for small firms that use and eventually employ labor with specialized skills and come to be supervised by the owner or entrepreneur. Finally, as the volume of market transactions grows, large firms arise, with a managerial hierarchy with delegated authority to supervise workers with longer-term employment contracts. Fafchamps examines how the governance of the transactions with workers needs to differ in the different stages, whether the norms and practices appropriate for different stages can coexist or will clash during the dynamics of

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development, and what this implies for the prospects of successful and speedy development.

In “Individualism, Innovation, and Long-Run Growth,” Yuriy Gorodnichenko and Gerard Roland (6) provide direct and indirect empirical tests supporting the hypothesis that cultures attaching greater social status to innovators experience higher rates of innovation and economic growth. The direct tests use certain cultural scores as independent variables and growth rates as dependent variables. The indirect tests use genetic distance as an instrument for culture, with closer genetic proximity to the US population implying greater cultural similarity.

The last two papers study the roles of two particular but important institutions of development: law (in opposition to custom) and brokerage (facilitating exchange across boundaries).

“Legal Reform in the Presence of a Living Custom: An Economic Approach,” by Gani Aldashev, Jean-Philippe Platteau, and Sake Wham (7) addresses the ability of statutes that empower traditionally disad-

vantaged groups, such as women, to promote development-enhancing change, even when the statutes conflict with entrenched social norms. Although full enforcement of such laws is rare, by creating an implicit threat to the traditional authorities—loss of face when their decisions are overruled by higher authorities and reduction in the size of the population over which they rule as the disadvantaged populations find better outside options—formal law can shift the bargaining power of parties and lead to changes in outcomes. The paper constructs a theoretical model and offers examples in support.

Finally, “Stabilizing Brokerage” by Katherine Stovel, Benjamin Golub, and Eva Meyerson Milgrom (8) examines one of the most important and puzzling institutions that promotes change through the exchange of goods, services, information, and practices across an otherwise disconnected social network, from one isolated group to another. Agents who do this are called brokers, and their role is problematic. Each side in the transaction may suspect the broker’s integrity or impar-

tiality; therefore, brokerage can be fragile. The paper examines and compares three mechanisms that can counter this problem: (i) isolation of brokers into a distinct social group, separated from the transactors, (ii) complete capture of brokers by one side of the transaction, and (iii) grafting of brokerage functions on to other organizations that have separate motives to develop and sustain a reputation for trustworthiness. The authors analyze theoretical considerations and discuss examples of all three, but the inherent fragility of brokerage creates a natural dynamic in which relatively frequent failures are followed by change.

The variety of approaches, in terms of both questions and methods, highlights the richness of this area of research and indeed made for lively discussion at the conference. We hope this collection of papers will serve to broker ideas across disciplines and eventually to deepen social scientists’ understanding of the process of institutional change.

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2. Acemoglu D, Egorov G, Sonin K (2011) Political model of social evolution. *Proc Natl Acad Sci USA* 108(Suppl. 4):21292–21296.
3. Myerson R (2011) Toward a theory of leadership and state building. *Proc Natl Acad Sci USA* 108(Suppl. 4):21297–21301.
4. Krasner SD (2011) Changing state structures: Outside in. *Proc Natl Acad Sci USA* 108(Suppl. 4):21302–21307.
5. Fafchamps M (2011) Development, social norms, and assignment to task. *Proc Natl Acad Sci USA* 108(Suppl. 4):21308–21315.
6. Gorodnichenko Y, Roland G (2011) Individualism, innovation, and long-run growth. *Proc Natl Acad Sci USA* 108(Suppl. 4):21316–21319.
7. Aldashev G, Platteau JP, Wahhaj Z (2011) Legal reform in the presence of a living custom: An economic approach. *Proc Natl Acad Sci USA* 108(Suppl. 4):21320–21325.
8. Stovel K, Golub B, Meyerson Milgrom EM (2011) Stabilizing brokerage. *Proc Natl Acad Sci USA* 108(Suppl. 4):21326–21332.