1. Political culture and industrial rationality

Introduction

During the nineteenth century, each Western nation-state developed a distinct strategy for governing industry. Prevailing theories of policy-making neglect the origins of those strategies, and ultimately fail to explain why they persist through revolutions, regime changes, wars, and depressions. Functional and economic theorists who suggest that policy is driven by laws of economic efficiency cannot account for the fact that different nations show no clear pattern of convergence toward a most-efficient model. Political theorists who suggest that policies reflect the preferences of those who hold power cannot account for the fact that national industrial strategies endure under regimes with dramatically different ideologies.

Analysts use words such as "tradition" and "legacy" to explain national policy strategies, yet most theoretical frameworks privilege generalizable political and economic variables and make no place for national customs. The result is an unfortunate disjuncture between theory and empirical findings in comparative studies of policy: Whereas theory highlights universal political and economic forces, in the last analysis empirical investigations usually point to the effects of tradition. Thus in many studies, after theoretically important factors are used to explain a tiny proportion of the cross-national variance, culture and tradition are thrown in to explain the huge remaining "residual" variance. The reluctance to theorize and investigate traditions stems, I contend, from a core tenet of the modern worldview – namely that idiosyncratic traditions are relics of an earlier age that will eventually be washed away by the forces of logic and reason. A central premise of the modern worldview – that today's policy choices are governed by universal laws of interest and rationality – makes it difficult to conceive of something cultural guiding policy-making.

In this book I explore the origins of national industrial policy strategies by charting the evolution of railway policy in the United States, France, and Britain between 1825 and 1900. My aim is to conceptualize the national traditions that shape policy-making. Two theoretical observations prompted me to take on this task. First, modern economies and the policies that support them are organized in quite different ways and show no compelling signs of convergence, yet most analysts focus attention on everything but the processes that produce and sustain these differences. Second, the few theories that do purport to explain such national differences present major flaws. National character arguments employ a peculiar form of reductionism to trace national institutional differences to collective psychological traits of unspecified origins. The new institutional/statist approaches to politics that emphasize structural inertia have generated many synonyms for continuity, but little in the way of explanation. To say that institutions persist because they are institutionalized is to define, not explain. I argue that national traditions influence policy-making by contributing to collective understandings of social order and instrumental rationality. History has produced distinct ideas about order and rationality in different nations, and modern industrial policies are organized around those ideas.

My argument is based on two simple empirical observations. First, during the nineteenth century nation-states developed institutions for organizing economic life that paralleled those they used for organizing political life. The American polity located sovereignty in a series of autonomous community governments under a weak federal structure dominated by the courts. Industrial policy situated economic sovereignty at first in community governments, which practiced active stewardship of growth, and later in an adjudicative federal structure that made Washington the referee of a free market. The French polity located sovereignty in the central state, as the only force that could orchestrate political order and hold the nation together. Industrial policy likewise located economic sovereignty in the central state, under a parallel logic that only orchestration from the center could produce economic order and further the nation's material goals. The British polity located sovereignty in elite individuals by protecting them from their neighbors, the Crown, and the state bureaucracy. Industrial policy sought to locate economic sovereignty in individual firms at first through laissez faire, and later through active protection against the intrusion of market and political forces.

Most analysts have taken the parallels between political culture and industrial culture for granted, but I contend that they contain the secret to cross-national policy variation. My contention is that different conceptions of industrial efficiency originated in the traditions of political life. As modern industrial policies were devised, extant principles of social and political order were generalized to the economic sphere.

The second empirical observation is that national industrial strategies are reproduced when nations tackle new problems. When nations face new policy dilemmas they design new institutions around the principles of existing institutions. For instance, nations that have tried to promote efficiency by stimulating price competition in the past will use this strategy to achieve efficiency in new industries. I will argue that policy approaches are reproduced because state institutions provide principles of causality that policymakers apply to new problems, and not simply because institutions give policymakers the organizational resources to repeat history. By examining policy reproduction and evolution over the first seventy-five years of the life of the railways, I explore the role of these principles of causality in policy continuity and change.

Before proceeding with the theoretical argument I review, in brief, the legacy of the national industrial policy strategies that appeared by the end of the nineteenth century. What did the different strategies look like, and how did nations' industrial strategies develop thereafter? The United States entered the twentieth century with industrial policies designed to guard economic liberties by preventing restraints of trade and enforcing price competition. Federal antitrust policy sought to preclude price fixing and combinations that would create industrial monopolies. Industry-specific regulatory agencies aimed to prevent cartels and keep price competition alive. These policies came to be associated with the idea that natural selection of firms in free markets is the mainspring of growth. Since the beginning of the twentieth century antitrust law has been expanded and fortified, and it has been used to structure industries ranging from oil to telecommunications to computers. Regulatory agencies oversee pricing and competition in such industries as electricity generation, natural gas, radio, television, and aviation. The United States' market-enforcing industrial policies contribute to the conviction that free competition will induce efficiency in virtually every economic sector.

France could hardly look different. By the close of the nineteenth century the French were working out a system of industrial governance based on public concertation of economic life. French policy aimed to guide major manufacturing and infrastructural sectors from above, on the principle that only the state can prevent self-interested entrepreneurs and market irrationalities from disrupting progress. The early twentieth century found state technocrats experimenting with mixed public-private enterprises and nationalizations. The indicative industrial planning that began in the 1950s extended the reach of state technocrats to every sector of the economy; five-year plans set sectoral goals and empowered the state to coordinate the rise of new sectors and the decline of sunset industries. French policy has been driven by the notion that a cadre of expert technocrats can guide the economy better than a hodge-podge of self-interested capitalists and better than the invisible and unthinking hand of the market.

If American policy allocated authority over economic life to markets at the end of the nineteenth century, and French policy allocated authority to technocrats, British policy allocated authority to entrepreneurial firms. Under the guise of laissez faire, Britain had encouraged cartelization and discouraged predatory mergers in order to shield small firms. The notion that the entrepreneurial spirit of the small firm was the mainspring of growth survived to shape policy in the twentieth century. The British responded to the economic crisis of the 1920s and '30s by encouraging cartelization to prevent bankruptcies. When Labour nationalized firms for ideological reasons after World War II, it preserved managerial independence from political meddling. When Britain mimicked France's industrial planning efforts in later years, attempts to promote promising sectors were bastardized into bailouts that would negate the effects of market forces on failing firms. During the 1980s the Thatcher Government returned to policies explicitly designed to locate economic authority in the firm. Twentieth-century industrial policy has guarded private initiative against interference from markets and politics to foster the profit-oriented entrepreneurialism that was identified in the last century as the source of economic dynamism.

How did the United States, France, and Britain settle on these strategies? Most political, economic, and institutional/statist approaches fail here because they take for granted the very socially constructed axioms of modernity that they should treat as objects of study. They take the modern worldview – in which behavior is oriented to economic utility maximization and to political struggles over collectivized material interests – at face value. They treat instrumental rationality as given. They objectify institutions in a way that treats the sustenance of social practices as unproblematic. They have, in essence, formalized the commonsense understandings that the modern worldview presents and turned those understandings back on modernity as analytic tools. The result is that instead of asking the big questions that stimulated the development of the social sciences in the nineteenth century – about how new social institutions and attendant conceptions of reality emerge and evolve – political, economic, and institutional/statist analysts ask questions that spring from within the modern worldview. Political analysts try to understand why one interest group or another appears to win a particular policy battle, rather than how modernity came to structure identity and action around corporate groups called nations, classes, races, and interests (but see Anderson 1983; Ruggie forthcoming; Thomas and Meyer 1984; Lipset and Rokkan 1967). Economists try to divine definitive principles of economic efficiency, rather than trying to understand how modern society came to be organized around progress and how particular conceptions of progress and efficiency emerged, as a number of economic sociologists have argued (for example, Granovetter 1985; DiMaggio and Powell 1991; Zelizer forthcoming). Institutional/statist analysts try to discern what kinds of institutionalized practices are best suited to the promulgation of particular policies, rather than trying to understand how such practices are given collective meaning and thereby sustained – how practices *become* institutions (but see Berger and Luckmann 1966; Meyer, Boli, and Thomas 1987; Scott 1992; Jepperson 1991). I call these three approaches "realist" below, to distinguish them from social constructionist approaches to the same realms. My contention is that these varieties of realism obfuscate the nature of rationality in modern settings by taking too much of the social world at face value, when they should be asking how the world got to be the way it is.

Political realism

It is a premise of democratic government that policy choices reflect the relative power of different interests in society. That idea has been at the core of the political science perspectives that explain policy choices by calculating the influence of rival groups. The interest group approach taken by pluralists (Truman 1951; Lowi 1969) and many neo-Marxists (Mills 1956; Miliband 1969) depicts policy-making as a process of conflict among competing interest groups; liberal and radical thinkers differ principally over whether the ground rules in political contests are fair. Among pluralists this approach can be traced back at least to Weber's *Economy and Society,* which discussed the rise of multifarious political clusters. Among neo-Marxists the approach can be traced back to the *Eighteenth Brumaire,* which mapped out the elite factions that struggled for control of the state under Louis Philippe. The commonsense premise of these theories – that policy decisions reflect the relative power of competing groups – so pervades academic political science that even the self-styled revolutionaries in the field treat it as a given. Rational-choice theory adds the spin that interests can be objectively assessed with mathematical models; coalitional approaches add the spin that because group interests vary over time, different factions coalesce in different moments.

This approach has offered insights into how nations choose from among *given* policy alternatives, but it fails in comparative studies. First, it fails to address the origins of those given policy alternatives (but see Bachrach and Baratz 1963; Lukes 1974). Because nations almost never choose from the same sets of options, and most often choose from mutually exclusive sets of options, understanding the origins of options is crucial. Take the issue of railway route planning. State planning was literally never considered in Britain: private planning was never considered in France. Understanding why these options did not enter political discussion is key to understanding why Britain used private planning and France used state planning, but interest group analysts have largely neglected the issue of how policy options are generated. Second, the interest approach fails to explain why a weak interest group in one country often wins a better policy outcome than its stronger counterpart in another country. Interest group analysts take it as an article of faith that the strongest group always gets its way, so that when a weak group appears to win a policy battle analysts go to great lengths to show either that the group wasn't weak, or that it didn't win. In practice, they define a group's strength by its capacity to win. Third, and perhaps most important, political realism fails to address the issue of why parallel interest groups in different countries believe very different policies to be in their interest. Railroads advocated widely divergent policies in these three countries even when their material situations would appear to have been identical. I contend that political approaches are unable to explain cross-national differences in policy because they are plagued by a form of realism that prevents them from asking how interest groups, collective problems that demand policy solutions, and actual policy alternatives are constituted.

Economic realism

The economic determinist arguments found in commonsense discourse and academic theory suggest that social systems are subject to economic laws that structure institutions. Policy institutions conform to economic laws either through macro selection processes, in which adaptive policies are reinforced, or through micro processes, in which individual-level utility maximization aggregates into collectively rational institutions. For both approaches, exogenous, universal, economic laws govern the cosmos and produce social practices. Contemporary economic theory is an exercise in discovering those laws in full detail. A central tenet is that economic reality is singular, and conforms everywhere to the same external laws. A corollary is that institutional context is not constitutive of economic life and laws, as economic sociologists are wont to argue (White 1988; Zelizer 1988). Instead, context is thought of as a set of conditional variables that have predictable effects under a general theory of the economic universe. Once the general theory is well understood, a full understanding of economic behavior and institutions devolves.

Macro approaches suggest that economic institutions, including policy, evolve toward efficient solutions and adapt efficiently to new environmental factors. In some versions, politicians and interested parties actively select efficient policy instruments, whereas in others functional requisites appear to determine policy choices. The logic-of-industrialization thesis, which has been revived in the recent development literature, suggests that each stage of economic development elicits a particular set of attendant policy and economic institutions. Alexander Gerschenkron asserts in his "late-industrializer" thesis that states respond to relative underdevelopment with certain activist policies to promote growth. Neoclassical theorists take it as an article of faith that because they coincided with growth, American market-enforcement policies reflect universal economic laws. They frequently predict convergence toward the United States' policy model. Andrew

Shonfield's political economy of modern capitalism heralded French industrial planning as the institutional model that would soon outcompete, and replace, laissez faire. These macro approaches posit that over time the most efficient policy institutions are selected either by rational agents of the state or by the invisible hand of the international market.

The new institutional economics and rational choice theory begin at the micro level to explain social institutions. Institutionalism in economic theory links overarching economic institutions, such as industrial policies, to the utility-maximizing behavior of self-interested actors. For Douglass North (1981), political rulers maximize state revenues by creating institutions that will maximize individual income, and this is how collectively efficient policy institutions emerge. For game theorists and transaction-cost analysts, macro institutions are the manifest outcomes of micro-economic activity; thus theoretical attention is fixed at the micro level. Rational-choice theory suggests that in the aggregate, individual self-interested political behavior will eventuate in policy institutions that achieve a utilitarian compromise, that promote efficiency by maximizing the common good.

Empirically, the argument that universal economic laws structure social institutions has become increasingly difficult to sustain. When the United States followed Britain as the world's unrivaled leader in economic growth, it made sense to think that the ostensibly laissez-faire policies of these two countries reflected universal economic laws. However, the accomplishments of entirely different models of growth – found in countries as diverse as Sweden, France, and Japan – have helped to undermine that way of thinking. If dramatically different economic systems can produce comparable rates of growth, then the universe's economic laws must be broad rather than narrow; inclusive rather than exclusive. And if policies that effect cartels and make the state the arbiter of corporate success can produce growth, then the laws of economics we thought we understood must be substantially wrong. Modern societies organize much activity around the search for transcendental economic laws, believe such laws to exist, and characterize behavior as motivated by such laws. Yet, in practice, economic logic and behavior patterns vary dramatically from one context to the next. This insight dates back at least to early institutional economists, such as Thorstein Veblen (1904), who insisted that economics be an evolutionary science because economic patterns are products of history that are not overdetermined by exogenous forces. If economic laws are situational rather than transcendental, and if different sets of laws serve as adequate functional alternatives, we should be trying to understand the causes of the diversity of economic systems.

Institutional realism

The new institutional/statist perspective in political science responded to the failure of political and economic paradigms to answer the question: Why do national policy strategies persist over time? Their answer is that the inertia of state organizational structures sustains policy strategies. They subscribe to a variety of realism in which social institutions – customs, that is – have the same ontological status as skyscrapers. Social "structures" exist independently of the human actors who inhabit them. These analysts bracket the immense question of how millions of individuals achieve collective understandings of reality sufficiently coherent to motivate them to get up in the morning, staple papers together, unscrew bolts, cook hamburgers, visit post offices, and do whatever else they do to reproduce social institutions (cf. Sewell 1992). Modern state institutions are reenacted daily in all of their complexity by masses of people who share cognitive frames that give meaning to the collective project of modernity and to the minutiae of daily activity. Rather than trying to explain how these shared conceptions of reality that are the basis of customs arise, they attribute "thingness" to customs with terms like institutional equilibrium, branching, path dependence, political learning, and inertia. The result is often a descent into tautology; institutionalized practices persist because they have inertia – because they persist. An institutional approach that addresses *why* they persist promises more useful insights (for example, Jepperson 1991; DiMaggio and Powell 1991; Meyer, Boli, and Thomas 1987).

The organizational resources of states are central to these arguments. Existing resources facilitate the adoption of new policies that are isomorphic with existing policies, and thwart the implementation of policies that are fundamentally different. In the United States of the nineteenth century, for instance, the federal administration had meager organizational resources, and as a result governing strategies that required little federal coordination developed across a wide range of policy realms (Skowronek 1982). Institutionalists do not simply argue that some states have greater resources than others. They hold that states have the resources to do particular things, and that new policies that call for states to do other sorts of things tend to unravel because such policies overtax states' organizational resources (Skocpol and Finegold 1982). Studies that trace policy over long periods of time confirm that nations tend to solve new problems with familiar strategies (Krasner 1978; Zysman 1983; Ikenberry 1988), and this is taken as evidence of the ontological "thingness" of institutions.

Institutional/statist realists claim that the state's organizational features are at the heart of overtime policy continuity. One empirical quandary institutionalists do not resolve is that nation-states have grown so much in the last 150 years that they no longer resemble their former selves (Tilly 1975). The mid-nineteenth century American state, with few permanent employees outside of the post office and armed forces, quickly grew into an organizational leviathan that employs millions. Yet in the period during which the modern nation-state emerged and exploded, national policy strategies show remarkable continuity. I will argue that it is the socially constructed logics of state action, more than the organizational resources of states, that persist to produce policy continuity. In fact, states regularly create new policy instruments that require organizational resources they do not hold, but they model those policies on the principles embodied by existing policies.

Culture and meaning in modern states

Because they were developed to explain policy choices within nations, existing approaches to public policy are seldom well suited to explaining broad differences between national policy styles. That is, most theorists have started out with questions such as, "Why did the United States pass one amendment to antitrust law in 1953 and a different amendment in 1962?" The answers they have come up with shed little light on cross-national questions such as, "Why does the United States always use antitrust law to govern industries, whereas France always uses proactive state coordination?" The problem is not that it is hard to predict national policy strategies, but that existing theories don't capture what is needed to make predictions. What kinds of policies will the United States adopt to govern a new industry? Place your money on policies that enforce price competition. What are the chances that the United States will, as France sometimes does, designate the industry a