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# Contagion in the Laboratories of Democracy

In July of 1997, Dallas area child protection activists appealed to local police and media broadcasters to launch the nation's first Amber Alert system, a crime prevention program enabling law enforcement agencies to activate regional emergency broadcast systems to announce missing children alerts.[1] From these origins, the Amber Alert system evolved into one of the most successful interstate innovation campaigns in recent history. With strong support from child-protection and victim's-rights advocates, every state in the union adopted the Amber plan between 1999 and 2005.[2] The Amber Alert proved to be such an appealing response to kidnapping that identical versions of the child protection law were soon adopted internationally. Between 2002 and 2004, every Canadian province adopted the Amber program.[3] In 2006, the United Kingdom launched its own version of the Amber plan called the Child Rescue Alert.[4]

[1] Demands for the Amber Alert grew out of local outrage following the brutal kidnapping and murder of nine-year-old Amber Hagerman in 1996. Although a neighbor had witnessed the child's kidnapping and contacted the police with a description of the vehicle, there was no way to broadcast the event to the broader public. For a brief history, see http://www.iowabroadcasters.com/ambrhist.htm; accessed August 2007.

[2] Oklahoma became the first state to adopt the Amber Alert in 1999. By 2003, the Amber Alert had been adopted by every state save Alaska and Hawaii.

[3] In the United States, Amber legislation stands for America's Missing Broadcast Emergency Response. The Amber Alert legislation is therefore both a memorial tribute to Amber Hagerman and a description of the program. Interestingly, Canadian provincial Amber plans retained the tribute to Amber Hagerman in its legislation, speaking to the power of the image associated with the policy innovation.

[4] A summary of the efforts to internationalize Amber Alert legislation can be found on the website for the Center for Missing and Exploited Children www.missingkids.com; accessed August 2007.

Although the Amber Alert was exceptional in the sheer speed and scope of its implementation, such abrupt patterns of policy adoption are far from unique in American politics. The reenactment of the death penalty, prohibition, term limits, tax revolts, state auto lemon laws, English Only language legislation, "three strikes" sentencing guidelines, mandatory child auto-restraint requirements, and sex-offender registries stand as prominent examples of policy innovations that moved rapidly and extensively throughout the nation. Most of these innovations were championed by well-organized interest groups, and appealed broadly to voters across the states. In many cases, the innovation was adopted by more than 30 states in fewer than six years.[5] In other cases, innovation spread suddenly over a subset of states before abruptly stopping.

The sudden and rapid diffusion of innovations challenges traditional conceptions of policy making in the United States. Students of American government argue that federalism should exert a conservative pressure against rapid policy change.[6] The implementation of identical public policies across states should be slowed by the multiple veto points of policy making in a federation, because innovation adoption requires an independent legislative decision by 50 state governments. Yet as the Amber Alert demonstrates, new innovations can and do spark positive feedback cycles leading to the sudden implementation of identical policies across states. Although such rapid standardization of state policies is often stimulated by intervention of the federal government through grants and other inducements,[7] there is little evidence to suggest that rapid diffusion depends on the power and resources of the national government. In the case of the Amber Alert, 32 states had adopted the program before the federal government passed enabling legislation providing grants for state Amber Alert programs.[8] In the case of the term-limitation movement, during which government reform activists imposed strict legislative term

[5] This requirement for the scope and speed standard for unusually rapid diffusion was proposed by Savage (1985a) in his study of the rapid diffusion of public policies whose "time has come" (111).

[6] Baumgartner and Jones (1993; 2005) provide a thorough review and critique of models of policy change in federations. For a summary, see *Agendas and Instability in American Politics*, Chapter 11.

[7] National Interaction models of public-policy diffusion explore how federal intervention shapes public-policy diffusion. For a recent study of national interaction effects in policy diffusion, see Andy Karch's "National Intervention and the Diffusion of Policy Innovations." *American Politics Research* 34(4): 403–426 (2006).

[8] In 2003, the same year the federal government passed legislation to fund Amber Alert programs across the states, an additional 15 states enacted Amber Alert programs.

limits on politicians across 20 state legislatures through the first half of the 1990s, interstate policy diffusion occurred absent the involvement of either the federal or state governments.[9]

Surprisingly, the rapid and sudden adoption of innovations across states is not well explained by extant studies of *policy diffusion* – the formal study of how ideas move from one jurisdiction to another in federations. Political scientists have generally explained policy diffusion as resulting from a process of incremental political learning by state governments (Walker 1969; Gray 1973; F. Berry and Berry 1990). The diffusion of innovations occurs through the "science of muddeling through" (Lindblom 1959), as government officials identify and emulate those policy innovations that present convenient or popular solutions to existing social or economic problems (Walker 1969; F. Berry and Berry 1999; Volden 2006). In their most common form, theories of public-policy diffusion anticipate that state decision makers identify policy problems and policy goals; engage in a limited solution search by exploring the policy solutions of peer jurisdictions; evaluate competing policy experiments for their efficacy; and, finally, select the "best" available policy solution. Diffusion research therefore gives primacy to the decision making of formal elected and appointed officials in state government, who identify, evaluate, and adopt emerging innovations that meet the challenges presented by interstate economic competition or address pressing social policy problems.

Current research in state policy diffusion overlooks the causes of varying rates of innovation diffusion. Whereas the earliest studies in policy diffusion assumed an expressly comparative orientation to the study of policy innovation and adoption,[10] modern research has assumed a narrower approach to documenting the processes leading to public-policy

[9] The diffusion of state legislative term limitations overcame the significant opposition of elected representatives in state governments, who were reluctant to vote themselves out of office. A number of states (MA, WA, OR, ID, UT, WY) later repealed their laws.

[10] The two articles responsible for focusing political science research on the diffusion of innovations adopted a comparative approach to the study of policy innovation and adoption. Walker's groundbreaking article, "The Diffusion of Innovations Among the American States," (1969) explored general patterns of policy adoption across 88 distinct innovations that diffused across the states. Gray's (1973) "Innovation in the States: A Diffusion Study" compared temporal and spatial patterns of policies across a range of different issue areas. These two articles sparked an important debate about the validity of generalizations drawn from comparative research on policy diffusion that continues to shape diffusion research today.

diffusion.[11] The modern standard in diffusion research focuses on single case studies that are used to document the political and decision-making processes underlying a demonstrative case of innovation diffusion.[12]

This perspective fails to capture the complexity of policy making in American federalism. Often, a series of states adopt nearly identical policies in a very short time frame, suggesting decision making driven by sudden policy imitation rather than gradual incremental learning. Just as importantly, innovations often spread through the channels of direct democracy, beyond the direct control of state legislatures and without the input of bureaucrats or elected officials. Finally, diffusion research has understated the role of nongovernmental actors in policy diffusion. The diffusion of innovations is driven not simply by sequential emulation across state governments, but rather by carefully orchestrated pressure campaigns of organized interests that strategically work to see policies adopted in as many states as is feasible. The term-limitation movement of the 1990s demonstrates this dynamic. Term-limit activists operated outside of state legislatures and were uninterested in evaluating the impact that term limits would have on the future quality of state policy making. Term-limit activists instead coordinated initiative campaigns to push for governmental reform in as many states in as short a time as possible. The diffusion of state term limits shows little evidence of the incremental learning process familiar to state politics researchers.

Perhaps because most research anticipates incremental learning as a centerpiece of the diffusion process, many of the most prominent and compelling cases of policy diffusion in recent U.S. history simply do not conform to the existing theoretical frameworks for how ideas move from one state to another. Although research in state policy diffusion has produced excellent descriptive studies of how economic competition or social-policy learning lead to innovation diffusion across state governments, this approach has been insensitive to the political and

[11] This standard is partially shaped by the limitations of the event history models currently favored in innovation and diffusion research. These logistic time-series models permit researchers to model how changes in state internal dynamics and interstate interactions increase a state's probability of adopting a single innovation at a given time.

[12] Perhaps the most widely known and cited piece of recent research in policy diffusion is a detailed study of how economic competition and geographic proximity spurred the diffusion of state lottery programs across states from 1960–1987 (F. Berry and Berry 1990). The popularity of the article is in no small part due to its groundbreaking introduction of the event history framework for diffusion research. However, it is telling that this preeminent piece of research on interstate policy diffusion addresses the gradual diffusion of a significant but not highly salient economic policy innovation.

decision-making processes leading to both *incremental policy adjustment* and *sweeping policy change*. Diffusion research currently provides no framework to distinguish between the processes leading to the sudden diffusion of innovations like the Amber Alert, the gradual and steady diffusion of innovations like state lottery programs, and the episodic and periodic diffusion of public policies, such as term limits. To understand why policies follow such remarkably different temporal and spatial patterns of diffusion requires a new and explicitly comparative approach to the study of diffusion – one which moves away from single case studies and instead studies factors leading to variation in patterns of diffusion. If states truly are "laboratories of democracy," then diffusion research must begin to account for the important causes of variation in the contagion and virulence of innovations that lead to such different patterns of policy diffusion.

## Overview of Research

This book explores the underlying causes of *diffusion dynamics* – the processes underlying the stable, gradual diffusion of innovations over time and the sudden policy shocks precipitating positive feedback cycles and rapid policy mimicking across states. It advances an epidemiologic framework to understand the factors leading to variations in the rate of innovation diffusion, the relative susceptibility and immunity of states to innovation, and the critical role that interest groups play as carriers or vectors of innovations from one state to another. To understand the causes of diffusion dynamics, this project addresses two primary areas of inquiry. First, it updates the behavioral model of political decision making underlying the distinct patterns of incremental and nonincremental policy diffusion. In so doing, it distinguishes between the decision-making processes leading to gradual policy emulation and the pressures leading to sudden policy imitation. Second, it explores the characteristics that propel certain innovations across some states much more rapidly than others. In addressing these two areas of inquiry, this book provides a framework for the study of the contagion and virulence of innovations, and advances a theory for understanding the causes of *policy outbreaks* – a process characterized by a positive feedback cycle leading to the extremely rapid adoption of policy innovation across states.

The book begins by generating a theoretical and empirical critique of theories of incrementalism in public-policy diffusion. The first section demonstrates that the popular model of incremental decision making

provides only a partial understanding of the behaviors leading to innovation diffusion. To model the joint processes of gradual policy change and sudden positive feedback cycles, this section develops an agenda-setting model of attention-driven political choice to capture the decision-making processes leading to diffusion dynamics.

The second section of the book identifies factors leading to both positive feedback cycles and incremental patterns of diffusion. This section borrows from the study of epidemiology to conceptualize the distinct factors leading to the diffusion of innovations across states. This study argues that epidemiology can serve as a useful guide for the study of innovation diffusion. Policy innovations are the specific agents that are being transmitted through the population of states. States are the susceptible hosts that can adopt innovation. Finally, interest groups are the carriers or vectors that transmit policies from one state to another. A model of diffusion dynamics cannot be built around a single causal factor or process, but rather must account for how variation in the agents, carriers, and hosts of innovation shapes the process of diffusion. In three separate chapters, this research develops how systematic variation in the characteristics of policy innovations, the political and institutional traits of states, and differences among interest-group carriers all contribute to nonincremental patterns of policy diffusion.

These two stages of the project are closely connected, and taken together the epidemiologic framework yields considerable insight into learning and decision making in federal systems. Diffusion dynamics are shaped by variations in the interactions of individual policies, state sociopolitical institutions, and interest-group organizations to produce different decision-making responses to policy innovations in the federal system. Different policy ideas produce nonincremental patterns of policy diffusion because they affect distinct decision-making processes by state decision makers, by elevating issue salience and arousing a sense of urgency, or by limiting issue salience and encouraging *satisficing* – a decision-making shortcut in which decision makers adopt the first available solution that is "good enough." Differences in state receptivity to innovations are shaped by variations in the political and institutional capacities of state governments to process simple or complex political information. States are not uniformly receptive to all forms of innovation. Instead, variation in state political and institutional attributes makes them systematically more or less prone to adopt different forms of innovation. Finally, the interest groups that act as carriers or vectors

of innovation produce drastically different patterns of diffusion, in part because they adopt different strategies when organizing pressure campaigns for innovation adoption. Variations in both the resources and the rhetorical strategies of interest groups agitating for innovation influence how state decision makers respond to calls for policy change.

## Political Decision Making and the Diffusion of Innovations

The idea that policy change results from two distinct decision-making processes has recently gained traction in public-policy studies. Founders of an important research program documenting policy dynamics in American politics, Bryan Jones and Frank Baumgartner (1993; 2002; 2005) observe that "dramatic policy change occurs regularly in American politics, even if most issues most of the time are characterized by routine developments" (2002, 1). Periods of policy stasis and dramatic policy change are caused by changes in the allocation of government attention (B. Jones and Baumgartner 2005). Incremental policy change occurs through a negative feedback process, as risk-averse decision makers operating under severe time constraints make marginal adjustments to policy regimes in order to maintain the status quo. Sudden and dramatic policy change occurs through positive feedback cycles, as an event focuses mass political attention to a specific issue area, leading to increased demands and support for dramatic policy change.[13]

A growing body of policy research confirms the dynamics of negative and positive feedback cycles in policy making across an impressive array of American political institutions. Research in presidential decision making (Larsen 2006), congressional attention (Baumgartner and Jones 1993), and state budgeting (Koski and Breunig 2006), has demonstrated that policy making in American political institutions displays both extended periods of policy stasis and sudden moments of policy change. Similar dynamics have been documented in policy areas as diverse as gun laws (True and Utter 2002), crime control legislation (A. Schneider 2006), and environmental and nuclear energy policy (Baumgartner and Jones 1993). Policy change in each of these issue areas has occurred

[13] A focusing event can be produced by a number of different factors, ranging from a natural catastrophe, an alarming shift in accepted policy indicators, or increased media attention on a policy problem. It need not be an exogenous shock to the political system.

through long periods of gradual policy adjustment interrupted by dramatic moments of sweeping policy reform.[14]

Despite anecdotal evidence that the process of policy diffusion is likewise prone to positive and negative feedback cycles, research has yet to connect the process of public-policy diffusion to the decision-making processes documented in the study of policy dynamics. To explain the causes of diffusion dynamics, this book begins by connecting the behavioral model underlying the larger study of policy dynamics to the decision-making processes leading to the diffusion of innovations. As with other research linking agenda setting to policy outputs, the processes of policy diffusion cannot be explained through a single static decision-making model, but rather must account for attention-driven pressures leading to both incremental policy adjustments and sudden nonincremental policy outbreaks.

Chapter 2 develops an agenda-setting model of public-policy diffusion to account for attention-driven pressures leading to both gradual incremental diffusion and policy outbreaks. Drawing on research in individual and organizational decision making, this analysis demonstrates that differences in diffusion dynamics occur because state decision makers prioritize information differently based on issue salience, perceived importance, and issue complexity. State political institutions disproportionately respond to innovations that activate emotional considerations or address relevant and highly salient issues. They give scant attention to issues with less immediacy. Such disproportionate information processing by decision makers across the federation leads to different diffusion dynamics, and can be used to reconcile models of incrementalism with policy outbreaks. The incremental model of information processing proves accurate for a large subset of innovations that encourage neither elevated issue attention nor a sense of urgency; however, in certain instances innovations channel mass political attention leading to mass policy mimicking. In these cases, diffusion occurs as a positive feedback cycle, absent any form of instrumental program evaluation familiar to incremental models of diffusion.

Chapter 2 introduces a stochastic process model to empirically evaluate the degree of incrementalism in the diffusion of innovations. This

[14] Similar decision-making dynamics have been identified by a number of researchers studying individual and systemic decision making. For example, most social customs spread gradually through populations; however in social fads, many members of a group imitate a behavior nearly simultaneously.

chapter introduces a unique data set measuring the state years of adoption for 133 policy innovations covering a wide range of innovations from the nineteenth, twentieth, and twenty-first centuries. This data set is used to evaluate general patterns of policy adoption in state policy making, asking specifically whether patterns of policy diffusion can be characterized as resulting from a process of incremental or nonincremental political decision making.[15] The findings presented in Chapter 2 reveal that policy diffusion displays punctuated dynamics that are inconsistent with incremental policy learning and emulation. Instead, policy diffusion has occurred more rapidly than expected in incremental learning models, indicating a process of incrementalism interrupted by sweeping policy outbreaks.

## Modeling Diffusion Dynamics: Are Public Policies Some Kind of Disease?

Taken by itself, analysis of models of decision making can provide only cursory insight into the causes of diffusion dynamics in American federalism. The distinct patterns of policy diffusion instead suggest some compelling questions about the process driving the diffusion of innovation. Why do some policy innovations spread much more rapidly than others? Why are some states receptive to certain forms of innovation when others appear policy-resistant to even the most popular state-level reforms? How does the involvement of nongovernmental actors shape the diffusion of innovations from one state to another? Resolving each of these questions leads to a greater understanding of the dynamics underlying the diffusion of innovations.

To model the causes of diffusion dynamics, the second section of this book conceptualizes the diffusion of innovations from the perspective of epidemiology, a discipline expressly dedicated to evaluating how changes in the environment, the virulence of agents, the behavior of vectors, and the attributes of susceptible and resistant hosts interact to shape the distribution and determinants of disease.[16] The basic approach of epidemiologic research encourages comparison to the study of the diffusion of

[15] Chapters 2 and 3 rely on distributional analysis to compare empirical patterns of policy diffusion to simulated patterns associated with incremental diffusion. A more detailed discussion of the approach is described in each of these chapters.

[16] Although there are clear limits to comparing the diffusion of innovations to the communication of disease, it is worth noting that diffusion researchers have long drawn inspiration from epidemiology to describe the underlying processes of diffusion. The

innovations. Whereas the study of policy diffusion is focused on understanding the determinants and distribution of policy ideas and innovations across policy-making jurisdictions, epidemiologists have focused on understanding both the distribution and determinants of "health-related states or events in specified human populations" (Last 2001, 62). The epidemiologic framework is especially appropriate for evaluating the incremental and nonincremental diffusion dynamics of central interest in this book. Epidemiologists have explored factors contributing to the speed and scope of outbreaks over time: the comparative virulence of the causes of disease (bacterium, virus, toxin, etc.); the distribution and activity of the carriers of "vectors" transmitting the pathogenic agent; and the susceptibility of the populations exposed (see Text Box 1.1). These areas of inquiry are similar to studies of public-policy diffusion that have explored how the internal dynamics of states make them more or less susceptible to innovation (Walker 1969; Savage 1978; Canon and Baum 1981; Carter and LaPlant 1997); how the distribution, activity, and interactions of interest-group carriers shape the diffusion of innovation (Gray 1973; Mintrom 1997); or how changes in the policy idea itself can lead to the sudden spread of policy innovation (Savage 1985a; Mooney and Lee 1995). Importantly, the epidemiologic framework encourages researchers to move away from descriptive studies documenting individual policy diffusion and toward new questions about comparative diffusion dynamics and the joint processes of incremental and nonincremental policy change.

### Mapping the Diffusion of Disease in Epidemiology

Figure 1.1 shows how public health researchers explore variation in each of four general factors to understand the dynamics of disease in human populations. A researcher interested in modeling the incidence, severity, and rapidity of transmission of disease in a population must account for change in environmental conditions, the characteristics of the carriers or vectors of disease, the genetic or behavioral traits of the host determining susceptibility to infection, and the unique attributes of the agent.

event history models currently favored in diffusion research were pioneered by epidemiologists interested in understanding when and why individuals in a community succumb to illness. In the emerging discipline of memetics, researchers argue that cultural norms and common policy ideas may actually replicate and spread like viruses (Dawkins 1989; Aunger 2002).