

The Logic of Policy Change: Structure and Agency in Political Life

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Abstract Policy universes are usually characterized by stability, even when stability represents a suboptimal state. Institutions and processes channel and cajole agents along a policy path, restricting the available solution set. Herein, structure is usually to the fore. But what of agency? Do no actors choose? In fact, they do, even in policy environments of incrementalism, even amid hostility. But where agency makes for momentous change is during the punctuations of long policy equilibriums, perfect storms enabling nonincremental movement onto a new policy trajectory, departing from the old path. On both levels, the interaction effects of both structure and agency make a difference—incrementally in the first case, nonincrementally in the second. It's not just one damn thing after another, nor does just anything go.

The Backstory

As the indispensable backstory to all health policy—everywhere—let us start, immodestly, with Wilsford's "iron law of health policy." This law is extraordinarily simple. It has been around forever. But it is astonishing that we always forget it. This law is all about a triangle, the three corners of which, in health policy, are access, cost, and quality.

This triangle is iron because it frames, even encompasses, a zero-sum game. For many years now, every advanced industrial democracy

This article was presented in an early form as a keynote paper for "Explaining Health Care System Change: Holistic Approaches," an international conference at the Universität Bremen (Germany), December 4–5, 2008. My full thanks go to many of those participants and to the anonymous reviewers of this manuscript for critical commentary that has vastly improved the final result.

that treats health care as a public good—and even some like the United States that don't—has faced a macropolicy dynamic driven by this environment of finite resources facing infinite demands. The iron triangle in health care—unmoving, unflinching, unremitting—obtains everywhere. Demands for more health care services surge continually and without respite into every health care system. Resources, however, never keep up.

Now in any modern economy, whether we believe we have “enough” resources to do X, Y, or Z is a matter of perception, desire, and value priorities. Especially at the level of an immense macroeconomy, as in any advanced industrial democracy, we could *choose* to spend, figuratively, as much as we want on health care. Five percent of GDP? Why not? Given comparative health expenditure data for the Organisation for Economic Co-operation and Development (OECD) countries, five percent sounds pretty good. Ten percent of GDP? Given the same comparative data, some countries already do that. Fifteen percent of GDP? Well, one OECD country does even more than that. Thirty percent of GDP? Nothing is stopping us—except the aggregate desire to do other things with some of the same money. This principle also applies at each of the other expenditure levels in this imaginary exchange. (Maybe not so imaginary.)

Of course the catch is that spending whatever we want, without limit, would mean that resources otherwise available to some other policy area, such as education or the environment or national defense or a host of other worthy targets, would instead be spent on health care. Life at any macro- or microlevel of any system is permeated by choices such as this. Finite resources in the face of virtually infinite demand mean that we *must choose*—by design or by default. The “iron-ness” of the triangle is unyielding, unremitting, itself infinite.¹ Either way, choice occurs. Infinite demands always confront finite resources. Some things get done; others do not.

Although this point may seem obvious, it is not trivial. The landscape at play within the boundaries of the health policy triangle in any given country is populated by hosts of decision agents, who act and react, individually and together, in shifting coalitions to maximize their own objectives. This specific analytic lens, of course, is resolutely grounded in rational choice, although we will see that it is a view of rational choice that is more sophisticated than the simple attribution of maximization of self-interest in an environment of perfect information and unlimited freedom. Moreover, it

1. Another way of looking at this point is to consider what I have referred to as the *entropy* of the health system (Wilsford 2006).

is a lens quite compatible with the long-standing view of incrementalism and partisan mutual adjustment in flat, diffuse political systems such as the American one (see the great Charles E. Lindblom in “The Science of ‘Muddling Through,’ ” 1959, and the *Intelligence of Democracy*, 1965).

The iron triangle of health policy, being a triangle, of course, has three corners: access, cost, and quality. These corners are not ordered by importance or priority. Rather, they represent the three poles between which the sustained and continuous tug-of-war around access, cost, and quality among many decision agents on the policy landscape creates a never-ending policy tension. In the ebb and flow of competing claims, some quite intense, the attribution of a new increment to one pole means that an increment must thus be taken away from another pole.

And so it goes, ad infinitum: some decision agents and coalitions of agents want to change the status quo equilibrium. Others do not. The three poles defining this equilibrium—access, cost, and quality—never cease to interact. Nor do these cease to compete with each other for the finite set of resources available at a given moment (or budget year). There is no finish line. Some agents in this environment may wish to provide or to enjoy more access, others, less. Still others may be principally concerned with the cost. (“Too much of it!” is the familiar cry; or, rarely, “not enough.”) Finally, other agents may be more oriented toward factors of quality: how to maintain it, how to improve it, how to better distribute it equitably. Naturally, many agents on this landscape have simultaneously conflicting preference orders: different and shifting mixes of all three poles together.

It is upon this tense landscape of the iron triangle in health policy that the struggles for resources and the political conflicts over policy decisions unfold. For a social scientist, analytically, the question is how to explain the presence of change versus stability in any given country’s health policy environment—everyone’s own iron triangle.

To do so here, I will first briefly address traditional functionalist explanations, for they point toward factors of stability. I will then turn to more recent approaches that rely on path dependency, sometimes known as the new institutionalism, for these models point toward factors of rigidity inimical to change. I then turn to a more elaborate and sophisticated view of a rational choice model to illustrate ways in which this rather rigid environment is not, after all, totally deterministic. No, Larry (Brown 2010, quoting Paul Pierson [2004: 68] quoting Paul A. David [1985: 332]), it is not simply “one damn thing follows another.”

Finally, I look to combine functionalism-structure and rational choice/

volitional will into a more holistic model that emerges from an examination of the interaction effects on the policy landscape between the two, that is, between the structures defining and hemming in the environment, on the one hand, and the many quasi-autonomous decision agents, on the other hand, who populate and inhabit this policy environment, each possessing at least a residue—and often more—of free (or volitional) will, otherwise known as *choice*.

A critical point to emerge from an examination of the interaction effects between structure and agency is that choice exists within the boundaries of structure. To be sure, institutions and paths hem in, channel, structure, and limit autonomous action on the part of decision agents. (Hence some of us persist in the nasty habit of referring to them as “quasi-autonomous decision agents” because that is indeed what they are.) But the structures, institutions, and paths do not obliterate choice. Choice lives on every day. Moreover, for incremental policy change, important differences at the margins are the result of choice. And in the rare occurrence of a perfect storm on the policy landscape, the striking out on a new policy trajectory entirely, agency—or choice, or volitional will—has a tremendous nonincremental effect of both margin and substance.

Functionalist Explanations of Change and Equilibrium in Health Policy

In the old days(!), most social scientists who looked at health policy, except of course the economists, were mainly informed by the great sociological lenses of analysis. And these analyses, being sociological, were mainly functionalist, because sociology mainly concentrates on how people organize together and why they do what they do. And we could hardly do better than to define modern functionalism as beginning with the foundational, pathbreaking work of Emile Durkheim. One of the first true social scientists (see his “social facts,” for example, in *Rules of Sociological Method* [(1895) 1982] and *Suicide* [(1897) 1951]), Durkheim laid out functionalism in an early, full view in *The Division of Labor in Society* ([1893] 1984). Emphasizing stability and order, Durkheim explores the classic question of how societies hang together. In this view, everyone has a role. Functions, or, more accurately, inherent imperatives—that is, imperatives inherent to a “system”—cause actors to emerge from society to accomplish or fulfill X, Y, or Z for the collectivity.

The key question is how a society or subset, such as a policy domain, maintains its coherence in the face of an onslaught of exogenous and

endogenous variables that threaten its integrity, that is, its successful hanging together. For Durkheim, the social scientific question was, as premodern societies move into modernity, becoming both more complex and more segmented, how do they preserve their integrity, or wholeness? They do so through instruments and mechanisms that grow up to serve the function of keeping society (or the relevant system) hanging together.

When societies or groups fail to hang together, they become dysfunctional, providing the opposite end of the variance for one of the great dichotomous dependent variables of all social science. For Durkheim, that is what suicide is—the exemplar of social dysfunction (wherein, for him, the independent variable was an aggregate societal one, as opposed to an individual psychological one). His great work, *Suicide* ([1897] 1951) is still an unsurpassed piece of modern social science—more than one hundred ten years later.

In health policy, imperatives bearing in on a given health policy system may threaten its cohesion. Decision agents (oops!), therefore, will be pushed, nudged, or cajoled to formulate policy responses—reforms—that counter these threats. Most often, these reforms are incremental.

For health policy, Rothgang and collaborators (2008) put forth a very sophisticated view of functionalism wherein, comparatively, a specific type of health care system and its structures is the crucial independent variable explaining the character of the policy responses in a given system to the pressures on that system. In this modified view of functionalism, internal imperatives elicit responses from a system, and the character of these responses is shaped by the specific character of the structures of the system; these vary cross-nationally. Therefore, cross-sectionally, identical imperatives cry out for responses within each system, but the specific character of the responses differs from one system to another.

For example, Rothgang and colleagues (*ibid.*: 7) cite the imperative of permanent financial austerity. Each system must respond to this austerity but does so in a different way, according to its structures. This point is very similar to my early argument about the fiscal imperative in health care (Wilsford 1990, 1995); this imperative pushed policy makers everywhere, in the end, to expand the capacities of their states to counteract the dysfunctional effects of interest groups blocking (meaningful, if incremental) reform—even in the quintessential “stateless state,” like the United States (see *ibid.*: ch. 6).

Path Dependency and the New Institutionalism

In contrast to a functionalist emphasis on the holistic character of a system and its survival in a hostile environment (even “mere” survival is a certain form of stability, or at least an equilibrium, although perhaps a suboptimal one), path dependency stresses the circumscribed character of the solution set within the system. It thereby points to the inevitability of incremental policy responses (small changes instead of big ones) within the system in reaction to endogenous or exogenous imperatives. In the last fifteen years or so, there have been two main avenues for the extensive work on path dependency and the so-called neoinstitutionalism.

The first is represented by my work (1994) on path dependency, in which I tried to understand why, for any given health policy landscape cross-nationally, most relevant policy elites, especially those inhabiting the state’s structures, were always manifestly unhappy with their ability to effect change within the iron triangle of health care. This unhappiness was present regardless of how well that country might be doing in any substantive cross-national perspective.

The key phenomenon was the persistent perception of suboptimality by every country’s own policy elite—at least in health care. A model of path dependency explained this consistency across cross-national contexts as well as why manifest suboptimality might persist, stubbornly resisting both heroic and quixotic efforts to change it. Even in top-down, or state-directed, systems, like Japan and France, the country’s own policy elites found it terribly difficult, often impossible, to break out of what they viewed as a suboptimal path in order to establish a new policy trajectory. (Usually, the most important suboptimality defined by health policy elites was cost and its incessant rate of growth [*ibid.*].)² While thoroughly consistent with long-standing concepts of incrementalism, these concepts alone did not seem to explain the pervasive and stubborn

2. The cross-national pervasiveness of suboptimality that I observed is both like and unlike North’s suboptimal economic institutions in the developing world. North (1990) won a deserved Nobel Prize in Economics for this work that specified the institutional conditions under which like economies performed either well or poorly; these conditions centered on coordination, transaction costs, enforcement, and failure clearing. In North’s analysis, however, there is little role for policy makers trying to change their own institutions. For North, the institutions are the independent variable, macroeconomic performance the dependent variable, and individual agency the *modus vivendi* within any given institutional framework. For me, the policy makers I observed cross-nationally were trying to change the rules of their respective systems, via many and various reforms. But they never ever succeeded to their own satisfaction.

phenomenon of “lock-in,” a point that my friend Larry Brown misses entirely.³

The second avenue for this work has been the so-called new institutionalism or neoinstitutionalism (also sometimes referred to as historical institutionalism). Beginning first as a counterpoint to behavioralism and its emphasis in political science on individuals and groups from civil society (and how they actually behave, hence *behavioralism*), the new institutionalism sought to “bring the state back in.” This work reintroduced the state as an independent variable, after successive waves of behavioralism had de-emphasized the state, then reduced it as an explanatory factor to nearly nothing.⁴

If anything, one can argue that the new institutionalism is more static in its analysis, whereas pure path dependency is more dynamic. Neoinstitutionalism is more static in that it emphasizes the existence of structures and institutions—the latter we can define as complex combinations of rules and roles—and the ways in which these institutions and structures circumscribe individual agency. They do so, in rational choice terms, by limiting the solution set.

In economics terms, in an influential treatment, Pierson (2000) describes how political institutions and processes are especially susceptible to the dynamic of increasing returns, as first fully laid out by Brian Arthur (1994). Paths assume their own life because, once established, the costs of exit rise with each successive iteration of decisions within the given matrix of payoffs.⁵

In contrast, the closely related model of path dependency is more dynamic than strict historical institutionalism; by its very terminology it points to the unfolding over time of the given path—that is, the iterations of those individual and collective decisions. This lens thereby highlights the incremental nature of policy movement over time along the path, thus simultaneously highlighting the (indeed, immense) difficulty in effecting nonincremental movement, or any really big change, which returns us to the dilemma of policy lock-in.

3. My approach to path dependency and lock-in owes a great debt to the early work of Paul A. David (1985) and Brian Arthur (1994).

4. Of course, Theda Skocpol was a pioneer in reintroducing the state as an independent variable at the macrohistorical level of analysis in Anglo-Saxon social science. Her book *States and Social Revolutions* (1978) predated almost everyone else’s work in this regard—although Asian and continental European scholars had never let the state go as the Anglo-Saxons had, especially under the influence of the early pluralists in American political science.

5. Which is not at all to argue that institutions, once set into place, are immutable. They do evolve, as Kathleen Thelen (2004) shows persuasively.

But neither model—path dependency nor new institutionalism—packs much, if any, explanatory punch when it comes to nonincremental change itself, that is, the big stuff. In recent work, I have begun to define the systematic elements at play in the occurrence of an exceptional conjuncture that permits, rarely, nonincremental change (Wilsford 2008). These are the policy equivalents of the so-called perfect storms found in meteorological science. Yet even here there is something rather dissatisfying about the oxymoronic notion that “theory” and “conjuncture” could collide in the same analytic expression. Will it ever be possible to have something we might refer to as a “theory of conjuncture” that would permit us to explain when nonincremental change—the big stuff—occurs? For how do you generalize the properties and conditions for something, a conjuncture, that is, by definition, a one-off?

Yet only through such generalization and explanation can we definitively confront the old-dog criticism by the skeptics of path dependency: Yes, Larry, it’s just one damn thing after another. Or is it?

Rational Choice Revisited

Which brings us back to the question of structure versus agency. Where is the role for choice? Neither the new institutionalism nor pure path dependency accommodates the variable of volitional will. Nor, in fact, does functionalism. The question of will, or agency, is precisely the analytic strong suit of rational choice.

Many traditional political scientists—especially in North America, paradoxically—have enjoyed minimizing the relevance of rational choice theory, mainly because, by their claim, it is unrealistic. But even perfunctory inspection reveals that the version of rational choice they minimize is, at best, a caricature of what we ought to regard as the real thing.

Even the most simple (as opposed to simplistic) versions of a rational choice model are powerful explanations of political and social behavior—at the individual level. Even more, one of the great classics of the rational choice literature—indeed of the entire postwar political science literature—Mancur Olson’s *The Logic of Collective Action* (1965), provided one of the first and still most powerful frameworks for tying the logic of utility-maximizing individual behavior—choice—to aggregate outcomes at the level of the collectivity. In this, Olson’s work is unsurpassed.

It was in this seminal work that Olson teased out with precision the links between individual behavior and collective outcomes. The bottom line, of course, for Olson is that, by any logic of individual utility maximization, collective action ought to nearly always fall apart. And yet it does not. It is

through this key insight, then, that Olson develops the first sophisticated frameworks of incentive and disincentive structures, almost Weberian, along with the techniques and mechanisms, carrots and sticks, that enable these incentive structures to channel individual choice in directions not dictated simply by direct utility maximization.

Put another way, Olson linked important aggregate outcomes to the imperatives governing individual behavior, thereby demonstrating that individual functions aggregate to group dysfunctions. Even the American Political Science Association (APSA) learned from him. That's why the APSA — as well as myriad others — ties its membership structures to selective incentives.⁶

The caricature of rational choice commonly advanced (by Larry Brown, among others) dwells on its supposed, unrealistic assumptions. These assumptions are mainly thought to assume both perfection and direction, traits that render them unrealistic in the real world. For example, let us take the information environment surrounding any given decision agent. In the caricature, a decision agent weighs maximizing a given utility in an environment of perfect information, all the while holding a perfect understanding of his or her own preference structure. That is, remarkably, this wonderful person knows everything. Indeed, if information is perfect, not only does a given agent know all of the current relevant facts, that agent also knows, with high reliability, relevant feedback from the past, along with fairly reliable forecasts. This is not our shopkeeper in the snowstorm struggling to decide whether to shovel the walk in front of the shop (see David 1985; Wilsford 1994).

Of course, it does not take a Nobel Prize in economics to understand that assumptions of perfect information in any model are highly unrealistic.⁷ Indeed, quite early in the development of the rational choice approach, more complex notions of “bounded” rationality came to the fore. The variables that circumscribe, or fix, the boundaries to rational decision making on the part of any agent are both real and complex. We will return to some

6. And the *American Political Science Review* is not actually the biggest incentive. It's involvement in the annual meeting itself, which is restricted by a coercive rule limiting participation to members only. As we all know, young political scientists on a research track must participate in the annual meeting — whether by presenting a paper or being a discussant or chair — to get ahead. And of course the APSA — and Olson — are right: all political scientists would be free riders otherwise. Little altruism there.

7. However, often in the physical and social sciences, simplifying assumptions proves indispensable for creating powerful explanatory models. Take, for example, the celebrated prisoner's dilemma game, the Bak-Tang-Wiesenfeld sandpile game, or the Bak and Tang earthquake game: in each of these, severely simplified assumptions have led to powerful and validated discoveries about human or physical phenomena.

of these when we address specific interaction effects between structure and agency.

Naturally, the more refined view of rational choice theory incorporates assumptions that are much more realistic. Rationality, we have begun to see, is bounded in a number of ways. Information is imperfect: information horizons are bounded in the present on both the left and on the right, and they are bounded in time both from behind and in looking forward. That is, at any moment the information available to any given decision agent about relevant variables in the immediate and not-so-immediate environment is specifically limited. Not every relevant variable is known. Nor is all relevant information known about the known relevant variables. Far from it, on both counts. Moreover, looking backward, the ability to interpret success and failure from preceding relevant variables is both erratic and limited. In other words, feedback itself is highly imperfect. Finally, looking forward, projections of specific effects given the adoption of certain decisions is perhaps the most imperfect information of all, as a number of variables that are relevant to such forecasts, or simply the manner in which these variables will unfold, may be completely unknowable for a future moment from a present one.⁸

Given these limitations in the information environment, how does a decision agent proceed? The answer is truly that, damn it, they proceed anyway. I call this “going ahead.” That is, in multiple mutant variants of Herbert A. Simon’s satisficing (1957), the usual decision agent proceeds to choose based on only partial information about the relevant environment and the relevant variables in it. This partiality is often both acute and deep. But agents decide anyway. They continue to choose. They go ahead.

In this way, the decision space resembles a free market of choice: multiple ongoing interactions take place among many decision agents based on their imperfect understanding of their preference structures and an equally imperfect understanding of the costs and benefits associated with getting what they want. In this free market, just as in an economic market, some agents win and some agents lose. Moreover, agents engage in multiple iterations of decisions, sometimes with the same counterpart agents and some-

8. It is well recognized now, through the important work of many behavioral economists, that cognitive, emotional, and social factors also affect decision agents’ calculus about their own rationality, and, yes, often cloud their view of what *rational* actually means, affecting both market decisions and public choice decisions. (What about the “herd instinct”? There’s a good one.) See the work of, among others, Kahneman and Tversky (1979). Kahneman, a cognitive psychologist, was awarded the Nobel Prize in Economics in 2002 for this work on prospect theory. Loss aversion, for example, explains why so many spend so much on such useless extended warranties for their televisions and camcorders. Long live Best Buy!

times with other agents entirely. Finally, all agents are not created equal. In any market, as *Animal Farm* taught us, some agents are more equal than others.

Interaction Effects of Structure and Agency

And so we turn now to the intersection of structure and agency in hopes of defining that space in which volitional will can be seen to make a difference (i.e., choice) within the bounded environment, bounded not only by imperfect information but also by the institutions and structures that fix the decision space and delimit the common solution sets.

In any real decision space, whatever the policy arena but perhaps especially in health care, quasi-autonomous decision agents share a number of commonalities. Here are the Holy Seven of them:⁹

1. They go ahead: decision agents act and react at decision moments despite the fact that information is highly imperfect along multiple dimensions, left and right, forward and backward.¹⁰
2. In acting and reacting, these agents choose from previously fixed solution sets, the membership in these sets having been delimited by the structural and institutional environment. Their choice range is thus exogenously circumscribed.
3. Over time, the structures and institutions of the environment that delimit the solution sets channel and manage and cajole decision agents along a general policy avenue. (This is the policy path.) It is very hard for any individual agent or group of agents to depart significantly from the established path, hence the name *path dependency* for this phenomenon. Agents and their decisions are largely dependent on the established path. This path may also be nonlinear, often highly so.

9. It sounds better in French: *Les saintes sept*. Oh well.

10. "Going ahead" is near to but not quite the same as the contention in the recent book *Animal Spirits* (Akerlof and Shiller 2009: 12–13) that (retrieving aspects of Keynes about psychological variables in economic depressions and recoveries), in the face of uncertainty, agents follow their spontaneous urge to action rather than a rational calculus of a weighted average of quantitative benefits multiplied by quantitative probabilities. (I am indebted to an anonymous referee for directing me to Akerlof and Shiller.) My point about going ahead is that events, imperatives, and factors push agents to act, even when they themselves half realize that they do not really know what to do and that they wish they knew much more about the environment and their fellow actors than they do. This point by no means excludes additional psychological and emotional factors, such as hyperbolic discounting, that also characterize many actors' less-than-rational calculus.

4. A microlevel contingency operates on decision agents' cognitive structures. One of the restrictions imposed on a boundedly rational environment is that there are always other actors, multiples of them, all acting and reacting simultaneously in ways that are relevant to one's own decision calculus. Therefore, any agent's specific decision on X will always be in some measure contingent on a number of agents' other decisions relevant to X in our first agent's decision environment. I call this factor "first-level contingency."
5. Moreover, in any realistic decision environment, the rationality of a given decision agent is also contingent on where that agent finds himself or herself in a two-dimensional matrix. The first dimension of the matrix is a horizontal one: every agent is perforce located within a greater or lesser network of other agents. Furthermore, agents simultaneously occupy positions in more than one network, sometimes overlapping. The second dimension is a vertical one: each agent is also located somewhere within a hierarchy. The decision agent's two-dimensional position within both network and hierarchy constitutes what I call "second-level contingency."

Second-level contingency operates horizontally and vertically, as decision agents both anticipate and calibrate their decisions based on their imperfect understanding of others' decisions in their networks as well as both above and below them in their hierarchies. These multiple and simultaneous contingencies act with powerful exponentiality on any decision made by any agent at any time.

Therefore, very significantly, volitional will is not "free" will at all. This is not a libertarian environment but a caged one. In the caged policy space, freedom of movement is not free at all, but choice (that is, choosing X instead of Y or Z), within both bounded parameters and multiple contingencies, still occurs—and it still makes a difference. Agents do choose X instead of Y or Z. It is just not a "free" choice if we mean free choice in the sense that you can do any damn thing you want.

6. This brings us into the fourth dimension of time, where decisions unfold. They don't just *happen*. That is, in the most important sense, they unfold *through* time. The static snapshot of the decision moment, whereby agent X decides Y and then simply does it, is barely realistic at all, rational or not. As time unfolds, decisions are gradually arrived at; then made; and then implemented, hesitatingly or with assurance, and in this sense decisions might better be regarded as occurring in threads, and often nonlinear threads at that, rather than at moments.

7. In an important way, the fourth dimension of time indicates already that any decision environment is not static but dynamic, and it is often nonlinear. The notion of a policy path, so important in path dependency, contributes further to this idea of dynamic. Time unfolds. Paths move along. However, unfolding and moving along, as verbs, should not be understood as necessarily implying linearity. *Dynamic* does not necessarily imply *linear*, but it does mean “fluid,” and fluidity itself may often be a nonlinear variable. Time flows along, or gurgles along, and paths progress, but they may not do so straightly. Crooked and abrupt, with stops and starts, switchbacks and failed tail-offs, all are important concepts signifying how much of both time and path dependency may in fact be *nonlinear*. Nonetheless, paths do unfold in policy because time does indeed march on.

Here, we come to the first important analytic juncture of interaction effects: within the bounded landscape of the policy path, decision agents—with institutions and structures hemming them in and channeling them along—given what they know and given the variables acting on them, exercise choice. This fact provides new meaning to the previously important phenomenon of sensitive dependence on initial conditions. At least incrementally, in any so-called static equilibrium, choosing X instead of Y can make a difference. And this is specifically why neoinstitutionalism and path dependency do not simply mean that “one damn thing follows another” (David 1985: 332).

The second important analytic juncture of interaction effects occurs when there are rare moments of opportunity for nonincremental policy change, the holy grail of big reform. Empirically, it is easy to see that big reform—reform that is nonincremental—is not the norm. It is the exception, and this is the case for all the advanced industrial democracies, maybe for the whole history of the world and the universe as we know it. Yet we have already seen that the dilemma of a path-dependency approach is that it never provides the opening for any big stuff—ever. Yet, equally empirically, we see that on rare occasions a perfect storm arrives on the policy landscape, and a conjuncture of large-scale and exceptional character opens a window for something big and new. Stephen Jay Gould (2007), working in paleontology, called this irregular phenomenon “punctuated equilibrium.” In policy, it is almost akin to a phase transition, as we observe in the physical sciences.

At these large moments, the effects of prior structure are comparatively minimized, thereby freeing the effects of choice, or volitional will, to assume greater importance than usual on the policy landscape. That is,

in the fleeting coming together of a one-off combination of variables that constitutes the conjuncture, the effects of how these variables unfold are, in important ways, *contingent*. Take the role of the charismatic leader, for example (in the Weberian view). While the presence or absence of such charismatic leadership is indeed a variable often essential to a full conjuncture or a complete perfect storm, the actual effects of the charismatic role in this conjuncture will be contingent on the individual choices made by the leader in question.

Or, perhaps even more important and more pervasive within the punctuated equilibrium of the conjuncture moment, coalitions of decision agents and the quality of their choices, their actions and reactions, in multiple cascading contingencies, will determine whether the nonincremental window of opportunity is indeed seized—or whether that window is allowed to close, slam bam shut.

Further, the character or content of these decisions at the critical moments will determine the content and direction of any movement through the window. This constitutes the second sense of sensitive dependence on initial conditions. Choice—that is, volitional will exercised among alternatives—by individual decision agents and groups of agents at these moments determines the direction and content of any new nonincremental path trajectory that is set out upon.

So nonincremental conjunctures are all about completely new solution sets and what will constitute their content. Thus, due to these interaction effects, agency makes a significant difference in the big moment of the perfect storm, in that moment of the equilibrium's punctuation.

A Holistic Logic of Change: The Logic of a Complex Adaptive System

So far, we have seen, first, that a functionalist approach, building on the grand and important Durkheim tradition, explains well why so many of the main contours of a health policy system come together and persist (I stress: *persist*). They fulfill the functions of any modern health care system around the three Ps: providers, payers, patients. (Do patients always come last?) Functionalism, however, does not explain well why systems, responding to similar imperatives, deploy such a vast array of tools and mechanisms that differ so widely from one system to another. Nor does functionalism explain why some systems—analyzed cross-sectionally—do better than others along important dimensions, such as spending, efficacy, access, quality assurance, coverage, and the like.

Second, we have seen that static neoinstitutionalism, or its dynamic

counterpart, path dependency, explains well the continuity of policy across time, and in particular, the pervasive presence of incremental policy movement, as opposed to nonincremental big policy change. Neoinstitutionalism and path dependency also explain well the persistence of manifest suboptimality in a given system.

Third, however, we have confronted the persistent critique of the skeptics of neoinstitutionalism and path dependency, namely, that these approaches constitute nothing more significant than the old saw, one damn thing after another. We confronted this critique by reintroducing a refined and nuanced view of rational choice as the governing framework for quasi-autonomous decision agents' actions and reactions in a given policy environment.

In this view, volitional will comes to the fore in certain well-defined ways: at the micro level, volitional will characterizes the choice exercised by decision agents when assessing an imperfect landscape and the sometimes cryptic reactions and actions of other decision agents around, these latter often contributing little more than a surround-sound cacophony. At the macro level, volitional will characterizes the choice that unfolds, especially but not exclusively in larger aggregates, at moments of large conjuncture. It thereby plays the primary role in determining the content and direction of new big movement through the exceptional window of opportunity, in the absence, by definition, of accreted structures—that is, the previous institutions of neoinstitutionalism and the prior path of path dependency.

These decisions of volitional will—choice—are not made in a cognitive vacuum, but, as in rational choice, represent decision agents' best assessment of utility maximization, given an environment of deeply and acutely scrambled variables and highly imperfect information.

It is through these interaction effects that we can analytically square the circle: functionalism and its heirs, neoinstitutionalism and path dependency, interact with volitional will at the level of the decision agent and lead to occasional nonincremental movement within prevailing structures and along the established path in long phases of static equilibrium. As previously accreted institutions and their paths are left behind, as a prior equilibrium becomes punctuated, volitional will determines the new structures and the new path trajectories that come into being—embodying sensitive dependence on initial conditions: there are we at the moment of creation, the initial conditions on which the future is sensitively dependent.¹¹

11. Carolyn Tuohy (1999) gives a precise, strong analysis of such modern change moments in the cases of Britain, Canada, and the United States.

The logic of change in the policy universe is therefore the logic of a complex adaptive system that alternates between the relatively static and the suddenly dynamic. In the first, the ongoing policy equilibrium, a relatively stable policy life proceeds more or less directly and with reasonable stability—and with many dimensions of nonlinearity—along an established policy path.¹² In the second, a previous policy equilibrium is punctuated and replaced with a new one. Agency, or volitional will, plays a microlevel role in the first and a macrolevel role in the second.

Real policy life, therefore, is a complex interaction unfolding over time between the static and dynamic, between structure and conjuncture, between structures and agents—as time, its own independent variable, marches on.

And, like time, one way or the other, policy life goes on as well: functionalism, neoinstitutionalism, and path dependency alternating, even coexisting at moments of phase transition, with rational choice, agency, and volitional will. These overlapping and interacting characteristics are what make any modern health policy universe a complex adaptive system—both highlighting our analytic frustrations and justifying our continued search for that holy grail. Do we grope for policy, as Larry Brown suggests? Absolutely. It's not clean and it's not pretty. Solutions in complex adaptive systems emerge only over time; even then, they are often suboptimal.

But in all this, let us hope for the best, for the real policy problems are immense, yielding easily neither to simple explanations nor to simple solutions. May higher powers help us, simple scientists that we are, as we try to better grasp the complex, make sense of it, and, even, maybe, change it. After all, isn't that what science and policy are all about? Trying to grasp the complex, make sense of it, and, maybe, change it just a bit.

12. Stability and nonlinearity are in no way mutually exclusive traits of a system.

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