

History and Contingency in Political Science

Sven Steinmo

Spring 2010

Looking back at many of the most significant events that have shaped our world in recent years - the fall of the Berlin wall, the terrorists attacks of 9/11, and even collapse of the financial system in 2008 - one fact stands out: They were unpredictable.

For many social scientists, this unpredictability poses a very serious a scientific problem. This is because, for them, prediction is the *sine qua non* of science. For example, Frankfort-Nachmias and Nachmias exhort their readers in their highly respected methods textbook, “[t]he ultimate goal of the social sciences is to produce an accumulating body of reliable knowledge. Such knowledge would enable us to *explain, predict* and *understand* empirical phenomena that interest us.” (2008: 5-7). Indeed, “the ability to make **predictions,**” they teach our students, “is regarded as the outstanding characteristic of science” (Frankfort-Nachmias and Nachmias 2008)emphasis in original, p. 9).

Based on this or similar notions of what makes ‘good science,’ many political scientists have created models of politics and behavior as if politics and history were the products of discrete, stable and independent units (or variables) interacting with other variables in stable and predictable ways. In other words, while most people (including political scientists away from the day jobs) see the world as enormously complex and understand history to be a series of contingent events, political science (and economics) increasingly “envision[s] a world of linear relationships among variables, parity in the size of cause and effect, recurrent patterns over time, and the fundamental insignificance of chance happenings” (Zuckerman 1997)(Zuckerman 1997: 285).

The problem with this vision of political science, in my view at least, is that it assumes that the social world works according to the same kind of laws and principles as the physical world. Frankly, I do not think that it does. Instead, I agree with Peter Hall when he argues “a substantial gap has opened up in mainstream comparative politics between the methodologies popular today and the ontologies the field is now embracing.” (Hall 2003:374). History is not best understood as the product of a series of discrete equilibria that is occasionally punctuated by outside forces, but instead better understood as a continuous evolutionary process. Political systems are not fixed “structures” but are instead better seen as complex systems that change, adapt and evolve.

If what we study is ‘not like physics’ then how we study it should not model itself on physics. Instead, I argue that we (especially students of politics and history) can and indeed should embrace what I call an evolutionary approach to politics and history. This does not imply that we should study political systems as if they were biological systems – for they clearly are not. But it does imply that we can adopt an ontological position much closer to that found in the life sciences. At the root of this ontology is the assumption that the objects of analysis—complex systems—are fundamentally different than inanimate matter. To be sure this has not been easy even for students in the life sciences. As the great evolutionary theorist Ernst Mayr explained, a radical shift in thinking was needed which, “required a restructuring of the conceptual world of science that was far more fundamental than anyone had imagined at the time” (Mayr 2004: 26). (Mayr 2004)

From an evolutionary perspective outcomes are rarely the product of discrete variables operating independently on one another in predictable and repeatable ways. This is first because evolutionary theory assumes *complex causation* and is the study of “*complex adaptive systems*” (Holland 1992) (Holland 1992). This means more than simply things are complex. Instead it accepts that many outcomes are the result of *emergent* phenomena. What this means is that complex phenomena are often the result of a series of unguided interactions at the micro-level and that the outcomes may be unique to the particular interaction. Interaction is the key aspect of an emergent system, which implies that isolating factors as “independent” variables may be an ontological fallacy.

Rather than predict the future, the goal of evolutionary scientists is to understand the forces and dynamics that have shaped the world as we know it. Specifically they are interested in understanding how and why populations adapt, prosper, and change. In other words, why is there variation across time and space? They do this inductively rather than deductively. They do not have the goal of being able to predict future evolutionary adaptations, not because they do not have enough data, nor because their computer models are not powerful enough, but because evolutionary theory assumes that random variation within complex systems can set development along totally new and unpredictable paths. For these reasons, evolutionary scientists are necessarily engaged in path analysis and process tracing. They are interested in both explaining adaptations and understanding the consequences of those adaptations.

There are two obvious alternative implications one can draw from the above: Either we need to refine our models and methods so that we can improve our predictive capacities. In this view of the world, history is in fact predictable, we just have failed to develop tools and programs that are sophisticated enough to capture or deal with all the variables necessary to make accurate predictions. Such a conclusion implies that we need to train ourselves and our students in ever more sophisticated methods and develop ever more comprehensive data bases with which we can build and test more complicated models. We can and will reduce the enormous complexity of the world, in this view, and ultimately get better at predicting. We will become more like 'real' scientists.

Alternatively, if history is in fact largely unpredictable because of the contingency created by external shocks to the system or by the endogenous transformations implied in emergence, then we need methodologies that help us understand that world and its complexity. In this view, politics and history is not like Newtonian physics, the political world may in fact be more like the biological world or even the quantum world in which variables are not constant and relationships are rarely stable and linear. In either case, we need to adjust our ontological framework to this empirical reality.

What does this mean for the political science? I submit that it means that *the study of history should not be seen as an interesting subfield within political science (or a good way to illustrate our deductive theories) but is and must be at the core of the field itself*. I do not deny that we can learn a great deal through comparative statics analysis. Nor am I suggesting that game theory, or large n cross-national econometric analysis, or for that matter, survey research, should be banished from the field of political science. Far from it, these methods and analytic approaches can be useful to us because they can be helpful in generating interesting observations and even sometimes help us test our hypotheses. But if the central goal of political science *as a science* is to explain and understand the world in which we live, then the central tools we use to analyze that world cannot begin with assumptions that are fundamentally at odds with the way history actually evolves.

This point of view has very important implications not only for how we study the world, but also for what we teach. If politics and history are the result of the workings of stable variables in mechanical relations to one another, then we *ought* to teach political science and history much like economics is taught in most American universities today. But, if politics and history are instead the products of emergent phenomenon and contingent events, then we should teach (and learn) about the people, places and events themselves - not only because that can help us understand the processes at work, but also because in an emergent and contingent world, *these facts are themselves important*.

Nothing I have said here suggests that history is random, or that one cannot make probabilistic arguments about future events. But it does suggest that we can and should take more seriously models and methods that attempt to build contingency, emergence and context into our understanding of politics. Nor am I suggesting that *only* historical analysis is appropriate for studying complex, contingent or emergent phenomenon. Just as quantum physics attempts to mathematically analyze and understand the quantum world, there are a growing number of methodologies and approaches that are explicitly attempting to build contingency, emergence and uncertainty into their systems and models in political science. In my view this is all for the good. But I think we should also be very clear and self-confident about the fact that students of Politics and History have always understood the central role of these facts about the real world we live in.

Finally, I believe we can and should be more assertive in defense of the study of history itself in student (especially graduate) education. There can be no doubt that there is continual pressure given declining budgets and pressure for faster PhD graduation schedules to increase the methods

requirements placed on our graduate students, even if that may (unfortunately) mean dropping yet another substantive course or requirement from the curriculum. If this trend continues, political science may well be able to make more sophisticated predictions, but these predictions will always be wrong. This will not be because the techniques are too primitive, but because those who use them fundamentally misunderstand their world.

Frankfort-Nachmias, Chava, and David Nachmias. 2008. *Research methods in the social sciences*. 7th ed. New York, NY: Worth Publishers.

Holland, John. 1992. "Complex Adaptive Systems." *Daedalus* 121 (winter):17-30.

Mayr, Ernst. 2004. *What makes biology unique? : considerations on the autonomy of a scientific discipline*. Cambridge, UK ; New York: Cambridge University Press.

Zuckerman, Alan S. 1997. "Reformulating Explanatory Standards and Advancing Theory in Comparative Politics." In *Comparative Politics*, ed. M. I. Lichbach, & Zuckerman, Alan S., eds.,. Cambridge: Cambridge University Press.