Theory-Guided Process-Tracing in Comparative Politics: Something Old, Something New.

Tulia G. Falleti, University of Pennsylvania

The method of process-tracing was originally proposed to incorporate historical narratives within highly abstract theories and explanations in the social sciences. As such, the method is not new. Although it has been unearthed and polished recently, the debates on the relationship between historical narratives and theoretical explanations, and between the specificity of historical events and the generalizations of law-like propositions span several decades and various disciplines.

In political science, one of the earliest explicit definitions of process-tracing was provided by Alexander George and Timothy McKeown (1985), who defined it as a method of within-case analysis to evaluate causal processes. According to George and McKeown (1985: 35), this method does not solely rely on the comparison of variations across variables in each case, but also "investigate[s] and explain[s] the *decision process* by which various initial conditions are translated into outcomes" (emphasis added). More concretely, the authors (1985: 35) argue that "[t]he process-tracing approach attempts to uncover what stimuli the actors attend to; the decision process that makes use of these stimuli to arrive at decisions; the actual behavior that then occurs; the effect of various institutional arrangements on attention, processing, and behavior; and the effect of other variables of interest on attention, processing, and behavior." Thus defined, the method of process-tracing is deeply rooted in the tradition of methodological individualism. It attempts to uncover the microfoundations of individual behavior that connect hypothesized causes and outcomes and to reduce the difficulties associated with unobserved contextual variables. Moreover, the authors conceptualize process-tracing as a method that not only permits the testing of hypotheses but also, unlike the statistical method, the generation of them.

More recently, Alexander George and Andrew Bennett (2005: 206) defined process-tracing as the "method [that] attempts to identify the intervening causal process - the causal chain and causal mechanism - between an independent variable (or variables) and the outcome of the dependent variable." According to these authors, the main ontological difference between the statistical method and the method of process-tracing is that while the former attempts to define

1

causal effects (i.e. the expected value of the change in outcome when - in theory - only one independent variable changes), the latter identifies the *causal mechanisms* that connect causes and effects. They define causal mechanisms as "ultimately unobservable physical, social, or psychological processes through which agents with causal capacities operate, but only in specific contexts or conditions, to transfer energy, information, or matter to other entities" (2005: 137). To the extent that these agents do not need to be individuals, this more recent definition of process-tracing allows for the identification of causal mechanisms that do not have to be rooted at the individual level. Moreover, following Mahoney's (2001) conceptualization of causal mechanisms, George and Bennett grant that these may ultimately be *unobservable*.

Recent Approaches

Other approaches have been applied to what we can label the "theory-guided process-tracing" (TGPT) method. There are important commonalities among them but also significant differences, particularly regarding the utility of the TGPT method to generate and test theories.

Sociologist Ronald Aminzade (1993) provides one of the most succinct and illuminating definitions of TGPT. According to Aminzade (1993: 108), the researcher has to provide "theoretically explicit narratives that carefully trace and compare the sequences of events constituting the process" of interest. Narratives, he writes (1993: 108), "allow us to capture the unfolding of social action over time in a manner sensitive to the order in which events occur. By making the theories that underpin our narratives more explicit, we avoid the danger of burying our explanatory principles in engaging stories. By comparing sequences, we can determine whether there are typical sequences across [cases] … and can explore the causes and consequences of different sequence patterns."

The celebrated book by Ruth Berins Collier and David Collier (1991) on the different patterns of working class incorporation in eight Latin American countries and their effects on the political systems and regimes of the region constitutes an excellent example within the comparative politics literature of the type of research design and method described by Aminzade. In their book, Collier and Collier analyze the political developments of eight countries along four paired comparisons. Countries with similar types of incorporation of institutionalized labor are paired together. At the same time, major socioeconomic differences between the countries of

each pair allow the authors to control for one of the alternative explanations (the impact of socioeconomic change). The case narratives and structured comparisons are organized around the conceptualization of reform, incorporation, aftermath, and heritage periods, spanning most of the twentieth century. TGPT shows that varying patterns of institutionalization of the conflicts among dominant and middle classes, organized labor, and the state in the early stages of the incorporation period had significant effects on the features of the political parties, their links to unions, and the political regimes of later periods.

Other methodological approaches to TGPT include those advanced by Robert Bates et al. (1998), Tim Büthe (2002), and Peter Hall (2003). The "analytic narrative" approach proposed by Bates and his coauthors combines the theoretical tools of rational choice and game theory with the narrative method. They "seek to account for outcomes by identifying and exploring the mechanisms that generate them" (Bates et al. 1998: 12). Similar to George and McKeown's uncovering of the decision-making process, the five collaborators (Bates et al. 1998: 11) in this book "seek to understand the actors' preferences, their perceptions, their evaluation of alternatives, the information they possess, the expectations they form, the strategies they adopt, and the constraints that limit their actions." Analytic narratives serve to illustrate the workings of a previously specified and deductively derived model. The ultimate epistemological goal of analytic narratives is to test models that yield unique equilibria. This is, however, the most limiting aspect of this approach. When narratives seek to incorporate relatively long periods of time, changes in variables that are exogenous (or endogenous) to the model are likely to occur and can significantly change the actors' preferences, options, and strategies. The idea of stable equilibria is severely confining when applied to historical narratives. Hence, analytic narratives are not well suited to incorporating changes that reshape the preferences of actors or the effects of events that may render previously available options no longer viable.

In an excellent methodological article, Tim Büthe (2002) proposes the concept of "historical narratives." These narratives seek to provide support for a theoretical argument and can be viewed as simplifications of reality that depict a deductively sound, systematic, regular relationship between variables (2002: 482). Unlike the authors of *Analytic Narratives*, Büthe allows for an analysis of endogeneity in his proposed approach. He recognizes the importance of feedback loops in social phenomena. These are cases in which changes in the dependent variable

3

at one point in time may lead to changes in the independent variables at a later point in time, which in turn will lead to further changes in the dependent variable. As other scholars have also noted (Pierson 2004), "[t]ime itself thus becomes an element of the causal explanation, a factor in the model" (Büthe 2002: 486). Historical narratives are useful for contextualizing the different steps of the process rather than leaving them fragmented into analytical stages. Büthe (2002: 489), however, remains skeptical about the extent to which historical narratives can assess alternative explanations. He argues that historical narratives are, at best, "plausibility probes" of models.

Peter Hall (2003), instead, gives a higher epistemological status to his proposed method of "systematic process analysis." He observes that theories of strategic interaction and path dependence have recently brought to light complex ontological aspects of social phenomena. Issues of timing, sequencing, complex interaction effects, and multiple causalities are rendering traditional methods in comparative politics inadequate and wanting. The method he proposes begins by specifying the set of theories that identify the relevant causal factors and how they operate. From each theory, the investigator then derives predictions about the patterns that should be observed if the causal theory is valid and if it is false. Other relevant observations, as many and diverse as possible, are then made. The patterns present in these observations are then inspected for consistency with the predictions of each of the relevant theories to determine which causal theory is superior to the others (Hall 2003: 391-2). Hall argues that in order to unfold the process that connects causes and outcomes, small-N comparisons provide much more explanatory leverage than has conventionally been recognized by the comparative method. Small-N comparisons allow scholars to assess more complex causal processes in a much richer set of observations. According to Hall, systematic process analysis is the most promising and fruitful venue to achieve an understanding of causal complexity.

The main difference among these recent approaches to TGPT is their conceptualization of the relationship between theory and method. In the *Analytic Narratives* project, TGPT provides an edge to understanding actors' preferences, expectations, and strategies, which could not be elucidated through the application of other methodologies. Yet, the function of the method is to illustrate how the theory or formal model works in the real world rather than to generate theories. According to Büthe (2002), TGPT is more appropriate than other methods in the study of

phenomena characterized by complex causality. However, he argues that, as a method, TGPT can only present us with plausible explanations, and cannot rule out alternative theories. In other words, it can generate but cannot test theories. In contrast, Hall (2003) maintains that TGPT is an epistemologically superior method in that it can map the ontological complexity of the social world and also rule out competing theories. It can generate *and* test theories.

Causal Mechanisms, Periodization, and Proficiency

What do these different approaches to TGPT have in common? In its different variants, the method of TGPT explains the outcomes of interest by going back in time and identifying the key events, processes, or decisions that link the hypothesized cause or causes with the outcomes. Note that this procedure entails that the researcher start with a set of hypotheses—preferably competing hypotheses—about the relevant causes and how they connect to the final outcome. The method of TGPT seeks to specify the mechanisms linking causes and effects.

Unfortunately, there is astonishingly little consensus about what the "causal mechanisms" are. James Mahoney (2001: 579-80) identified twenty-four definitions of causal mechanisms in the literature. In many cases, causal mechanisms become synonymous with "intervening variables." However, if causal mechanisms were to be reduced to intervening variables, which could be operationalized and measured using other methods, then the TPGT as a method would lose most of its comparative advantage. Ideally, causal mechanisms should be portable concepts. They should be of a higher level of aggregation than intervening variables. Causal mechanisms should identify relationships between conditions and outcomes that can be applied to other contexts (which should pertain to the theoretical domain of the theory proposed; see Geddes 2003: 152). Examples of these mechanisms are "learning," "competition" (Pierson 2004: 40-1, 124-9), "institutional conversion," and "institutional layering" (Thelen 2004: 35-7). These mechanisms are not simply intervening variables; instead, they refer to processes that can be applied to empirical situations different from those in which they were first conceived.

The utilization of the TGPT method poses two difficult questions to the researcher: when the narrative should start and when it should end. How far back the researcher goes in tracing the process is totally dependent on her theoretical framework and the competing theories under consideration, which define the theoretically relevant cause or causes to be studied. This,

however, is not always as conclusive a criterion as we might like. The issue of starting points may be highly contentious. Collier and Collier (1991) start their TGPT in moments of critical junctures, whereas Mahoney (2000) argues that only contingent events (and not all critical junctures are contingent events) can trigger path-dependent processes. Whether or not we adopt a more stringent definition of starting point, we should always justify the choice of period under study. Whereas the justification of the starting point may be contested, the end point is easier to establish; there is less disagreement on this issue since the end point is largely determined by the presence of the outcome of interest.

In linking the start and the end of the sequence, the researcher who applies the TGPT method has to reconstruct an explicit chronology of the sequence of events that constitute the process of interest. This is not a simple task; it requires a precise conceptualization of the types of events that are constitutive of the process as well as those that are not - even if they pertain to related, albeit different, processes. Therefore, an explicit theory underpinning our process of interest as well as a profound familiarity with our cases are both necessary.

Successful use of the TGPT method requires the researcher to tap into her sociological or political imagination in order to identify the theories relevant to the problems and puzzles she seeks to explain, and to be able to derive feasible causal mechanisms. Moreover, familiarity with the case or cases under study is crucial. Familiarity with the history, historiography, and politics of the cases of study makes it possible to avoid problems of selection bias (Lustick 1996) and to improve the validity and reliability of our proposed narratives (Vitalis 2006). This requirement, in turn, poses two other practical questions: Is fieldwork always necessary? How many cases can a single author study using the TGPT method?

Lots of ink has been spilled fueling the debate between the advocates of fieldwork and archival research, on the one hand, and the advocates of the sufficiency of secondary sources, on the other. Exemplary books and articles have been written using both research strategies, thus making it difficult to establish *a priori* the supremacy of either approach. However, in the early stages of our academic careers as comparativists, it would be hard to compensate for the many insights we get through in-depth interviews, the analysis of primary documents and archives, and the overall experience of living in the society whose politics we seek to explain. Independent of the research strategy we choose, the TGPT method requires in-depth knowledge of our cases. For

this reason, works that apply TGPT will be closer to the small-N end than to the large-N end of the sampling spectrum. If, as Hall (2003) says, this is the price we pay to understand complex causality, the trade-off is worth it.

The increasing salience of TGPT as a qualitative method can be appreciated in the sessions offered by the Consortium on Qualitative Research Methods (CQRM). In January of this year, the CQRM (for the fifth consecutive year) offered a ten day-course on Qualitative Research Methods at the University of Arizona. At least four of the twenty-two general sessions offered dealt explicitly with different aspects of TGPT, such as the "process tracing" method, "comparative-historical methodology," "historiography, archival research, and temporality," and "temporality, critical junctures, and path dependence."

The TGPT method can provide a cognitive map for the type of ontological world described by Hall (2003). In this regard, the TGPT method has several advantages compared with traditional methods. First, as emphasized by George and Bennett (2005) and Hall (2003), it permits the study of complex causal relationships such as those characterized by multiple causality, feedback loops, path dependencies, tipping points, and complex interaction effects. Second, it can lead to the formulation of new theories or hypotheses on the causal mechanisms that connect correlated phenomena. Third, TGPT in structured, focused comparisons (i.e., measuring the same causal mechanisms and outcomes in the same way across each case) permits the testing of hypotheses and theories. Finally, the TGPT method can reveal how endogenous changes affect the evolution of our variables of interests. For all these reasons, the careful application of TGPT to generate and test hypotheses will continue to advance our knowledge about complex causality phenomena in comparative politics.

References:

Aminzade, Ronald. 1993. "Class Analysis, Politics, and French Labor History." In *Rethinking Labor History*, edited by L. Berlanstein. Urbana and Chicago: University of Illinois Press, 90-113.

Bates, Robert H., Avner Greif, Margaret Levi, Jean-Laurent Rosenthal, and Barry R Weingast. 1998. *Analytic Narratives*. Princeton, NJ: Princeton University Press.

Büthe, Tim. 2002. "Taking Temporality Seriously: Modeling History and the Use of Narratives as Evidence." *American Political Science Review* 96 (3): 481-493.

Collier, Ruth Berins, and David Collier. 1991. *Shaping the Political Arena. Critical Junctures, the Labor Movement, and Regime Dynamics in Latin America*. Princeton, NJ: Princeton University Press.

Geddes, Barbara. 2003. *Paradigms and Sand Castles: Theory Building and Research Design in Comparative Politics*. Ann Arbor: The University of Michigan Press.

George, Alexander L. and Andrew Bennett. 2005. *Case Studies and Theory Development in the Social Sciences*. Cambridge, MA and London, England: MIT Press.

George, Alexander L. and Timothy J. McKeown. 1985. "Case Studies and Theories of Organizational Decision Making." *Advances in Information Processing in Organizations* 2: 21-58.

Hall, Peter A. 2003. "Aligning Ontology and Methodology in Comparative Politics." In *Comparative Historical Analysis in the Social Sciences*, edited by J. Mahoney and D. Rueschemeyer. New York: Cambridge UP, 373-404.

Lustick, Ian. 1996. "History, Historiagraphy, and Political Science: Multiple Historical Records and the Problem of Selection Bias." *American Political Science Review* 90 (3): 605-618.

Mahoney, James. 2000. "Path dependence in historical sociology." *Theory and Society* 29 (4): 507-548.

Mahoney, James. 2001. "Beyond Correlational Analysis: Recent Innovations in Theory and Method." *Sociological Forum* 16 (3): 575-593.

Pierson, Paul. 2004. *Politics in Time. History, Institutions, and Social Analysis*. Princeton and Oxford: Princeton University Press.

Thelen, Kathleen. 2004. *How Institutions Evolve. The Political Economy of Skills in Germany, Britain, the United States, and Japan*. New York: Cambridge UP.

Vitalis, Robert. 2006. "The Past Is Another Country." In *A Handbook for Social Science Field Research. Essays & Bibliographic Sources on Research Design and Methods*, edited by E. Perecman and S. R. Curran. New York: Sage Publications.