

5th ECPR Summer School in Methods and Techniques 26 February – 4 March 2016
University of Bamberg, Germany
Course Description Form¹ [1-week main course, 15 hours]

1. Course title

Advanced Process-tracing methods

First name, last name: Derek Beach

Department/Unit: Political Science

Institution: University of Aarhus, Denmark

Full postal address for ECPR correspondence : Derek Beach, Department of Political Science, Bartholinsalle 7, Aarhus University, 8000 Aarhus C, Denmark

Phone: +45 8942 1292

Fax: +45 8613 9839

E-mail : derek@ps.au.dk

3. Short Bio (ca. 50-70 words):

Derek Beach is an Associate Professor at the University of Aarhus. His substantive research has focused upon EU integration, on which he has published two books, an edited volume, and numerous articles and chapters. He has recently published a book on process-tracing methodology with the University of Michigan Press, and has published several book chapters on process-tracing.

4. Prerequisite knowledge

Note from the Academic Convenors to prospective participants: by registering for this course, you certify that you possess the prerequisite knowledge that is requested to be able to follow this course.

The instructor will not teach again these prerequisite items. If you doubt whether you possess that knowledge to a sufficient extent, we suggest you contact the instructor before you proceed to your registration.

This course requires that you are familiar with the recent literature on case study methods (post 2010), and assumes familiarity with basic concepts related to Process-tracing. In particular, you should have basic knowledge about causal mechanisms and empirical tests and how they are used in case studies.

5. Short course outline (150 words)

This hands-on course aims to provide participants with the methodological tools to refine their use of process-tracing methods in their own substantive research, while also enabling them to embed process-tracing case studies in mixed-methods research design. The course requires active participation.

It is assumed that participants have taken previous courses on process-tracing and/or in-depth case study methods. Further, course participants should bring with them theoretical propositions that they wish to investigate along with some empirical data that can be evaluated using process-tracing methods.

¹ *Disclaimer: the information contained in this course description form may be subject to subsequent adaptations (e.g. taking into account new developments in the field, specific participant demands, group size etc.). Registered participants will be informed in due time in case of adaptations.*

The course will first review the ontological and epistemological underpinnings of process-tracing, including the Bayesian logic of inference. The core of the course will be hands-on workshops dealing with topics such as conceptualizing and operationalizing mechanisms, along with tools for evaluating evidence. These workshops will use both the theoretical and empirical material of participants along with certain pre-prepared exercises.

In the concluding sessions we will debate the strengths and limitations of process-tracing, investigating when it can and cannot be used, and how it can be combined with other methods in mixed-method designs.

6. Long course outline (800 to 1200 words)

This hands-on course aims to provide participants with the methodological tools to refine their use of process-tracing methods in their own substantive research, while also enabling them to embed process-tracing case studies in mixed-methods research design. The goal of process-tracing is to make strong within-case inferences about causal mechanisms. The course requires active participation.

The promise of process-tracing as a methodological tool is that it enables the researcher to study more-or-less directly the *causal mechanism(s)* linking an independent variable (or set of variables) and an outcome, allowing us to open up the 'black box' of causality itself. A classic example from medical science is scholarship on the association between smoking and cancer. While a strong empirical correlation had been well established for many years, it was only recently that medical scientists using techniques analogous to process-tracing have provided strong proof that a biological mechanism actually exists that causally links smoking and cancer (Bunge 1997). Within political science methodology, process-tracing is arguably the only method that allows us to study causal mechanisms, allowing us to understand *how* an X (or set of X's) produces Y instead of simply studying correlations and associations, and therefore is an '...invaluable method that should be included in every researcher's repertoire.' (George and Bennett 2005:224).

The course starts by differentiating process-tracing from other methods; including both large-n quantitative methods, but also other small-n methods such as analytical narratives, comparative case studies etc. Here we define process-tracing by the interest in studying causal mechanisms in single case studies in ways that enable within-case causal inferences to be made. We discuss the three variants of Process Tracing: theory-testing, theory-building and explaining outcome process-tracing.

The course thereafter will discuss in-depth the ontological and epistemological underpinnings of process-tracing, including a thorough introduction to the Bayesian logic of inference and how it contrasts with the frequentist logic of inference and the comparativist logic

of elimination. We discuss the types of inferences that can be made using process-tracing designs.

The next session discusses what causal mechanisms are, and how they differ from other types of causal theorization. The focus will be upon enabling students to translate causal theories ($X \rightarrow Y$) into causal mechanisms that can be studied empirically using process-tracing.

The core of the course will be hands-on workshops dealing with topics such as conceptualizing and operationalizing mechanisms, along with tools for evaluating evidence. The session on conceptualization (Day 2, session 2) introduces the conceptualization process, and how theories of causal mechanisms should be formulated in order to enable the analyst to capture the transmission of causal forces through the mechanism. We will also discuss the challenges of conceptualization when we are dealing with more complex mechanisms (long-term, incremental mechanisms, multiple interacting mechanisms, and the challenge of studying equilibrium situations). The afternoon project work will deal with conceptualizing the theories in your own research as causal mechanisms disaggregated into parts composed of entities engaging in activities.

Day 3 focuses upon the operationalization phase, where empirical predictions are developed for what evidence we should find if the parts of a hypothesized causal mechanism are present. The focus will be upon test strength and how it affects our ability to update our confidence in the validity of a theory. The second session will use Moravcsik's 1999 article as a practical example of test strength and how it can be improved. The afternoon project work deals with developing and strengthening tests in your own research.

Day 4 focuses on the challenges of gathering and working with empirical material in process-tracing research. Empirical material needs to be evaluated before it can be admitted as evidence upon which we can make causal inferences. These two sessions deal the evaluation process, where raw empirical observations are assessed for their content, accuracy and probability, enabling us to use it to update the degree of confidence we have in the hypothesized causal mechanism actually being present using the Bayesian logic of inference. The session will involve a lecture on source criticism, and then in-class discussions of a set of empirical materials from the Cuban Missile Crisis. The afternoon project work will involve the detailed evaluation of your own empirical material in your research.

The first session on day 5 deals with mixed-methods, focusing on how case selection strategies can in certain situations enable the inferences made in the single case using process-tracing to shed light on causal relationships in the broader population of the phenomenon being studied. We illustrate when and how the theory-building and testing variants of process-tracing can be nested into a broader research program; something that is possible as they share a common nomothetic ambition with other political science research methods, where systematic factors are exclusively focused on. On the other hand, explaining outcome process-tracing

studies cannot be embedded in a nested analysis due to the inclusion of non-systematic, case-specific factors in the analysis, giving them a more idiographic flavor that has a family resemblance to historical research.

In the concluding session we will debate the strengths and limitations of process-tracing, discussing when it can and cannot be used, along with practical challenges that you face in your own research.

7. Day-to-day schedule (Monday 16 February to Friday 20 February)

[Please be as precise as possible. Each day = 3 contact hours, split in two 90' sessions.]

	Topic(s)	Details [NB : incl. timing of lecture v/s lab or fieldwork etc. hours]
Day 1	1 - Introduction 2 - Causal inference and the Bayesian logic of inference	1 st session 9.00 – 10.30, 2 nd session 11.00 – 12.30
Day 2	1 - Causal mechanisms 2 - Conceptualizing causal mechanisms	1 st session 9.00 – 10.30, 2 nd session 11.00 – 12.30
Day 3	1 - Operationalization – basic principles 2 - Improving test strength	1 st session 9.00 – 10.30, 2 nd session 11.00 – 12.30
Day 4	1 - Evaluating evidence - primary sources 2 - Evaluating evidence – secondary sources	1 st session 9.00 – 10.30, 2 nd session 11.00 – 12.30
Day 5	1 - Mixed-methods? 2 - Conclusions	1 st session 9.00 – 10.30, 2 nd session 11.00 – 12.30

8. Day-to-day reading list

	Readings (please list at least the compulsory reading for the scheduled day)
Day 1	<p><u>1st session (9.00-10.30) – Introduction</u></p> <ul style="list-style-type: none"> • Beach and Pedersen (2013) <i>Process Tracing: An Introduction</i>. Ann Arbor: University of Michigan Press. Chapter 1. • Beach and Pedersen (2016) <i>Causal Case Studies: Foundations and Guidelines for Comparing, Matching and Tracing</i>. Ann Arbor: University of Michigan Press. Chapter 2 on causation. • Mahoney, James. 2008. Toward a Unified Theory of Causality. <i>Comparative Political Studies</i> 41(4/5): 412-436. <p><u>2nd session (11.00-12.30) – Causal inference and the Bayesian logic of inference</u></p> <ul style="list-style-type: none"> • King, Keohane and Verba (1994) <i>Designing Social Inquiry: Scientific Inference in Qualitative Research</i>. Princeton: Princeton University Press, pp. 75-97. • Humphreys and Jacobs (2016) ‘Mixing Methods: A Bayesian Approach.’, <i>American Political Science Review</i>, 109(4): 653-673. • Beach and Pedersen (2013) <i>Process Tracing: An Introduction</i>. Ann Arbor: University of Michigan Press. Chapter 3. • Beach and Pedersen (2016). Chapter 6. <p>Afternoon project work based on:</p> <ul style="list-style-type: none"> • Schimmelfennig, Frank. 2001. The Community Trap: Liberal Norms Rhetorical Action and the Eastern Enlargement of the European Union. <i>International Organization</i> 55(1): 47-80.
Day 2	<p><u>1st session (9.00-10.30) – Causal mechanisms</u></p> <ul style="list-style-type: none"> • Beach and Pedersen (2013) <i>Process Tracing: An Introduction</i>. Ann Arbor: University of Michigan Press. Chapter 2. • Gerring (2010) ‘Causal Mechanisms: Yes, But...’, <i>Comparative Political Studies</i>, 43(11): 1499-1526. • Hedström and Ylikoski (2010) ‘Causal Mechanisms in the Social Sciences.’, <i>Annual Review of Sociology</i>, 36: 49-67. • Machamer, Peter. 2004. Activities and Causation: The Metaphysics and Epistemology of Mechanisms. <i>International Studies in the Philosophy of Science</i> 18(1): 27-39. <p><u>2nd session (11.00-12.30) – Conceptualizing causal mechanisms</u></p> <ul style="list-style-type: none"> • Beach and Pedersen (2013) <i>Process Tracing: An Introduction</i>. Ann Arbor: University of Michigan Press. Chapter 4. • Beach (2016) Chapter 3 and 4 on conceptualization and theorization. • Goertz (2006) <i>Social Science Concepts</i>. Princeton: Princeton University Press, pp. 27-67. <p>Afternoon project work based on your own dissertation.</p>
Day 3	<p><u>1st session (9.00-10.30) – Operationalization – basic principles</u></p> <ul style="list-style-type: none"> • Beach and Pedersen (2013) <i>Process Tracing: An Introduction</i>. Ann Arbor: University of Michigan Press. Chapter 5. • review B&P (2016) chapter 6 from day 1. <p><u>2nd session (11.00-12.30) – Improving test strength</u></p> <ul style="list-style-type: none"> • Fairfield, Tasha (2013) “Going Where the Money Is: Strategies for Taxing Economic Elites in Unequal Democracies.” <i>World Development</i> 47 (2013): 42-57.

	Afternoon project work based on your own dissertation.
Day 4	<p><u>1st session (9.00-10.30) – Evaluating evidence</u></p> <ul style="list-style-type: none"> • Beach and Pedersen (2013) <i>Process Tracing: An Introduction</i>. Ann Arbor: University of Michigan Press. Chapter 6. • Lustick (1996) 'History, Historiography and Political Science.', <i>APSR</i>, 90(3), pp. 605-618. <p><u>2nd session (11.00-12.30) – Evaluating evidence – in practice</u></p> <ul style="list-style-type: none"> • <i>Course packet on Cuban Missile Crisis (to be provided)</i> <p>Afternoon project work based on your own empirical material from dissertation.</p>
Day 5	<p><u>1st session (9.00-10.30) – Mixed-methods?</u></p> <ul style="list-style-type: none"> • Beach and Pedersen (2016) 'Selecting Appropriate Cases When Tracing Causal Mechanisms.' <i>Sociological Methods and Research</i>, online first. • Beach and Pedersen (forthcoming) review chapter 2 (day 1) • Lieberman (2005) 'Nested Analysis as a Mixed-Method Strategy for Comparative Research.', <i>American Political Science Review</i> 99(3): 435-451. • Rohlfing, Ingo and Carsten Schneider (2013) 'COMBINING QCA AND PROCESS TRACING IN SET-THEORETIC MULTI-METHOD RESEARCH.', <i>Sociological Research and Methods</i>. 42(4). <p><u>2nd session (11.00-12.30) – Using process-tracing in practice</u> Discussion of research designs of students (no readings)</p>

10. Literature

Supplemental:

Brady, Henry E. and David Collier (eds) (2010) *Rethinking Social Inquiry: Diverse Tools Shared Standards*. 2nd Edition. Lanham MD: Rowman Littlefield.

Bunge, Mario. 2004. How Does It Work?: The Search for Explanatory Mechanisms. *Philosophy of the Social Sciences* 34(2): 182-210.

Doyle, A. Conan. 1975. *The Memoirs of Sherlock Holmes*. London: George Newnes.

Gerring, John. 2006. Single-Outcome Studies: A Methodological Primer *International Sociology* Vol. 21(5): 707-734.

Gerring (2007) *Case Study Research*. Cambridge: Cambridge University Press.

Glennan, Stuart S. 2002. Rethinking mechanistic explanation. *Philosophy of Science* 69: 342-353.

Hedström, Peter and Richard, Swedberg (ed). 1998. *Social Mechanisms an Analytical Approach to Social Theory*. Cambridge: Cambridge University Press.

King, Keohane and Verba (1994) *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton: Princeton University Press.

Mayntz, Renate. 2004. Mechanisms in the Analysis of Social Macro-Phenomena. *Philosophy of the Social Sciences* 34(2): 237-259.

Pierson, Paul. 2003. Big, Slow-Moving, and...Invisible: Macrosocial Processes in the Study of Comparative Politics, In *Comparative historical analysis in the social sciences*. Ed. Mahoney, James and D. Rueschemayer, 177-207. Cambridge: Cambridge University Press.

Roberts, Clayton. 1996. *The Logic of Historical Explanation*. University Park: Pennsylvania State University Press.

Rueschmeyer, Dietrich. 2003. Can One or a Few Cases Yield Theoretical Gains? In *Comparative historical analysis in the social sciences*. Ed. Mahoney, James and D. Rueschemayer, 305-337. Cambridge: Cambridge University Press.

Examples of process-tracing research

Janis, Irving L. 1983. *Groupthink: Psychological Studies of Policy Decisions and Fiascoes*. Boston: Houghton Mifflin Company.

Jervis, Robert. 2010. *Why Intelligence Fails: Lessons from the Iranian Revolution and the Iraq War*. Ithica: Cornell University Press.

Khong, Yuen Foong. 1992. *Analogies at War: Korea Munich Dien Bien Phu and the Vietnam Decisions of 1965*. Princeton: Princeton University Press.

Moravcsik, Andrew. 1998. *The Choice for Europe*. Ithica: Cornell University Press.

Owen, John M. 1997. *Liberal Peace Liberal War: American Politics and International Security*. Ithica: Cornell University Press.

Schultz, Kenneth A. 2001. *Democracy and Coercive Diplomacy*. Cambridge: Cambridge University Press.

13. Other recommended courses (before or after this course)

The following other ECPR Methods School courses could be useful in combination with this one in a 'training track'. NB this is an indicative list.

Before this course:

	Course title	Summer School	Winter School
1	Process-tracing Methodology I - an introduction (week 1)	X	
2	Case Study Research : Method and Practice	X	
3	Introduction to the Philosophy of Science		X
4	Comparative Research Designs		X
5			

After this course:

	Course title	Summer School	Winter School
1	Qualitative Comparative Analysis and Fuzzy Sets	X	
2	Process-Tracing II (in practice) (week 2)	X	
3	Advanced Multi-Method Research		X
4			
5			