

## CRASH COURSE - BAYESIAN INFERENCE IN ITERATIVE QUALITATIVE RESEARCH

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The way we intuitively approach qualitative research is similar to how we read detective novels. We consider different hypotheses to explain what occurred—whether the emergence of democracy in South Africa, or the death of Samuel Ratchett on the Orient Express—drawing on the literature we have read (e.g. theories of regime change, or other Agatha Christie mysteries) and any salient previous experiences we have. As we gather evidence and discover new clues, we continually update our beliefs about which hypothesis provides the best explanation—or we may introduce a new alternative that occurs to us along the way. Bayesianism provides a natural framework that is both logically rigorous and grounded in common sense, to govern how we should revise our degree of belief in the truth of a hypothesis—e.g., “mobilization from below drove democratization in South Africa by altering economic elites’ regime preferences” (Wood 2001), or “a lone gangster sneaked onboard the train and killed Ratchett as revenge for being swindled”—given our relevant prior knowledge and new information that we obtain during our investigation. Bayesianism is enjoying a revival across many fields, and it offers a powerful tool for improving inference in qualitative research.

This interactive workshop will introduce basic principles of Bayesian reasoning with the goal of helping to leverage common-sense understandings of inference and hone intuition when conducting causal analysis with qualitative evidence. We will examine the foundations of Bayesian probability as well as concrete applications to single case studies and comparative case studies. Participants will learn how to construct rival hypotheses, assess the inferential weight of qualitative evidence, and evaluate which hypothesis provides the best explanation through Bayesian updating. The workshop will also cover key aspects of research design, including case selection and iteration between theory development and data analysis. Bayesian probability not only fits naturally with how we intuitively move back and forth between theory and data, but also provides a framework for rational reasoning that mitigates confirmation bias and ad-hoc hypothesizing—two common problems associated with iterative research. At the end of the course, the participants will be able to read qualitative case studies more critically and apply Bayesian principles to their own research.

Methodology  
MeMa

Matters

**5 November 2018**

Room A, h. 10.00-12.00 and 14.00-17.00

**6 November 2018**

Room A, h. 10.00-13.00 and 14.00-16.00

Graduate School in Social and Political Sciences  
via Pace 10 - Milan

Thanks to the contribution of the Compagnia di San Paolo, the course is free, and open to PhD students, MA students, and Post-doc researchers regardless of their background or previous knowledge. Due to organizational constraints, however, admittance is closed to 25 participants.

**Candidate participants are kindly requested to send a motivated expression of interest to [auste.vaznonyte@unimi.it](mailto:auste.vaznonyte@unimi.it) by October 26, 2018.**

Faculty members are all welcome as observers.

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