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Process Tracing – Towards a New Research Agenda

by

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Abstract: Over the past decade, process tracing has come into its own as method. It is taught regularly at all the major methods schools in Europe and North America; in terms of publications, we have a growing research literature on the method that goes well beyond the introductory, ‘this is how you do it’ flavour of the textbooks published in the 2010s.

With these pedagogic and publication trends in mind, this paper argues for a mid-course correction to the research agenda of process tracing. Fundamentally, the method is about the collection and then analysis of data. In recent years, we have made important advances in the analysis part, most clearly seen in the growing literature on Bayesian process tracing. To do those analytics well, however, requires rich, high quality data. Process tracing needs to think harder about this data collection – the front-end of the method, as it were. Most important, this means a greater focus – as we collect data - on within-process-tracing methods and research ethics. It also means a broadening of research transparency to consider it during data collection, especially a researcher’s positionality. Finally, we need to expand how we collect our data by developing a robust interpretive form of process tracing.

This agenda is meant to complement and not replace current efforts. It will give process tracing a richer, more ethically grounded, meta-theoretically plural set of tools for executing its data analysis.

I. Introduction

Process tracing, as qualitative research method, has come of age. This is most clearly seen in current research and pedagogy, where we focus less on the nuts and bolts ('how to execute the method rigorously') and much more on debating and teaching how to make that execution better. Indeed, we have gone from a situation where many liked process tracing - 'process tracing is good!' (Waldner 2011, 7) - to one where we are debating its foundational inferential logic and how to improve the validity of its causal claims. One sees this in the growing literature on Bayesian process tracing (Fairfield and Charman 2022), set theory and process tracing (Barrenechea and Mahoney 2019) and, most recently, 'veil of ignorance' process tracing (Symposium 2020).

This literature is state of the art. Yet, like the current disciplinary debate over data access and research transparency, it is premised on a core assumption of 'I don't trust me to do it right' – process tracing, in this case. Applying Bayesian logic is simply a way to formalize what most of us have done informally and intuitively as we analyze the data in a process-tracing study: updating our beliefs in light of new evidence. Veil of ignorance process tracing trusts the researcher even less, arguing for a complete separation of data collection and data analysis – to be conducted by two different scholars - as we cannot be trusted to cherry pick the data to tell the story we really wanted to tell.

This scholarship is not just cutting edge; it is also dominant in our teaching and research. This is especially the case with the Bayesian variant of process tracing (Checkel 2020; Zaks 2021). With these pedagogic and publication trends in mind, I argue in this paper for a mid-course correction to the research and teaching agenda of process tracing.

Fundamentally, the method is about the collection and then analysis of data. In recent years, we have made important advances in the analysis part – thanks mainly to the application of Bayesian logic.

To do those analytics well, however, requires rich, high quality data. I argue that process tracing needs to think harder about this data collection – the front-end of the method, as it were. Most important, this means a greater focus – as we collect data - on within-process-tracing methods and research ethics. It also means a broadening of research transparency to consider it during data collection, especially a researcher’s positionality. Finally, we need to expand how we collect our data by developing a robust interpretive form of process tracing. My agenda is meant to complement and not replace current efforts. It will give process tracing a richer, more ethically grounded, meta-theoretically plural set of tools for executing its data analysis.

The paper proceeds as follows. I begin with a brief assessment of Bayesian process tracing. My purpose is not to show that it is wrong or inappropriate; rather, it is to highlight an ongoing debate over its merits and if it is the best use of process-tracer’s time. If this first section is backward looking – where we are today - the next looks to the future, where I argue for a process tracing that is richer methodologically, more ethically aware, and grounded in a commitment to epistemological pluralism.

II. Process Tracing – The Past & Present

If one considers how we teach process tracing and what we publish about it, then it is clear that Bayesian applications are currently dominant, defining the state of the art among process tracers. Regarding pedagogy, courses at key fora such as the European Consortium for Political Research (ECPR) methods schools, the Syracuse Institute for Qualitative and Multi-Method Research (IQMR) and APSA short courses consist of process tracing basics – built on a positivist/scientific-realist epistemology - plus sessions on formalization. The latter mostly includes applications of Bayesian logic.¹ On research and publications, 55% of the

¹ Process tracing can also be formalized through the use of set theory (Mahoney 2019) or causal graphs (Waldner 2015).

journal articles, newsletter contributions and book chapters on process tracing in the period January 2017 – August 2020 were devoted in whole or in part to formalization.²

As Bayesian is by far the most popular way to formalize process tracing, let me consider it in more detail. What is Bayesian process tracing? Fundamentally, it is about applying a type of logic (and some math) to the data-analysis part of process tracing; it has no relevance for data collection. To be more precise on the latter, Bayesian logic can help ‘identify the kinds of evidence ... that will most effectively adjudicate among rival explanations’ (Bennett, Charman, Fairfield 2021, 7). However, Bayesianism provides no guidance on method choice and data collection. Say I want to access data on the observable implications of the mechanisms shaping social identities. What is the best method for such data collection? A survey? Political ethnography? Ethnographic interviewing? Bayes’ logic provides no answer.

More specifically, ‘Bayesianism [is] the methodological foundation of process tracing, which entails making causal inferences about a single case by assessing alternative explanations in light of evidence uncovered.’ It ‘improve[s] analytical transparency and establish[es] process tracing as a rigorous method.’ (Fairfield and Charman 2017, 363-64).

Executing Bayesian process tracing – as Bennett (2020) argues - requires four pieces of information to calculate the updated probability that an explanation is true given evidence E. First, we need to start with a prior probability reflecting our initial confidence that an explanation is true before looking at new evidence. Second, we need information on the likelihood that, if a theory is true in a case, we will find a particular kind of evidence in that

² For the period 1.17 – 8.20, I searched: (1) the journals *Political Analysis*, *Perspectives on Politics*, and *Sociological Methods & Research*; (2) publications listed in Google Scholar for Tasha Fairfield, Andrew Bennett, Derek Beach, and James Mahoney; and (3) the International Bibliography of Social Sciences database. Key words used were process tracing, Bayesian, set theory, formalization and qualitative methods. The search resulted in 20 articles, book chapters and newsletter contributions on process tracing. Of these, 11 – or 55% - dealt in whole or in part with formalization, understood as Bayesianism, set theory, or causal graphs. Publications over the past year (9.20 – 8.21) have, if anything, reinforced this trend in favor of formalization.

case. Third, one needs to know the likelihood that we would find the same evidence even if the explanation is false. Finally, one must interpret and read the evidence.³

While many see Bayesianism as the new frontier in process tracing, there are four issues requiring further thought. First, what does any of this have to do with process tracing?

Recall that the method involves:

the analysis of evidence on processes, sequences, and conjunctures of events within a case for the purposes of either developing or testing hypotheses about causal mechanisms that might causally explain the case. Put another way, the deductive theory-testing side of process tracing examines the observable implications of hypothesized causal mechanisms within a case to test whether a theory on these mechanisms explains the case. The inductive, theory development side of process tracing uses evidence from within a case to develop hypotheses that might explain the case; the latter hypotheses may, in turn, generate additional testable implications in the case or in other cases (Bennett and Checkel 2015, 7-8).

Process tracing is thus about gathering data and ‘fitting it’ to the observable implications of a causal mechanism. Bayesianism is about giving us guidelines for drawing causal inferences from qualitative evidence. Indeed, the phrase ‘Bayesian process tracing’ is rather misleading and should better be called ‘Bayesian qualitative analysis.’ The Bayesian toolkit for drawing and updating causal inferences can be used for all sorts of qualitative evidence, adduced from interviews or political ethnography, say. It only confuses matters more to define process tracing – incorrectly – as ‘making causal inferences about a single case by assessing alternative explanations in light of evidence uncovered’ (Fairfield and Charman 2017, 363).

For the sake of argument, however, assume Checkel is wrong and it does make sense to talk of Bayesian process tracing. Even here, there are additional issues to consider – which leads to my second, third and fourth concerns. Second, Bayesian logic cannot work with inductive forms of process tracing, as one has no (deductively derived) theoretical priors to

³ On Bayesianism and process tracing, see also Bennett 2015; Humphreys and Jacobs 2015; Fairfield and Charman 2019; and Fairfield and Charman 2022.

which values can be assigned. This was a limitation recognized early in the debate (Bennett 2015, 276), but has since been forgotten.⁴

Third, applying Bayesian logic and its accompanying mathematical formulas requires the assignment of estimated probabilities on the prior likelihood a theory is true as well as the likelihood of finding evidence (in two different ways). Bayesian analysis is impossible without these three estimated probabilities, which are derived in a subjective manner lacking any transparency.

Bayesian process tracers are aware of this problem (Bennett 2015, 280-81), but it is not clear how one fixes it. Maybe we need a transparency index – similar to the one used in active citation (Moravscik 2010) - where a researcher explains what data she drew upon to fix a certain probability, assuring us that cognitive bias played no role, and that she did not cherry pick the data to get a probability that will make her favored theory work. I am being facetious here, but the lack of attention to how estimated probabilities are assigned simply pushes to a deeper level the transparency challenges that process tracing faces.

Fourth, much of the application of Bayesianism to date has been to process-tracing greatest hits, especially Wood (2003) and Tannenwald (2007). Yet, none of Bayesians who replicate Wood or Tannenwald demonstrates where the Bayesian approach improves the process tracing. As Zaks argues, ‘Wood and Tannenwald are excellent data collectors, analyzers, and writers - skills that consistently prove to be the most central assets to good (and transparent) process tracing. Until Bayesian proponents can demonstrate where their method reveals new conclusions or more nuanced inferences, the costs of adoption will continue to outweigh the benefits’ (Zaks 2021, 71).

In sum, the jury is still out on the utility of Bayesian process tracing. The critics have raised serious questions, but these individuals are few in number - Zaks, Checkel, but who

⁴ See also the excellent discussion of hypothesis generation-refinement-testing and Bayesian process tracing in Zaks (2021, 63-65).

else? In the process tracing community, many support the incorporation of Bayesian logic – see the teaching and publication data above. Yet even the proponents are cautious about the technique, recognizing its limitations and weaknesses (Fairfield and Charman 2017; Bennett 2020). Put differently, this is very much an ongoing debate in the literature. On my read, Zaks’ (2021) critique of Bayesianism is spot on. Yet, it has now been rebutted in part by the three individuals who arguably have spearheaded the research (and teaching) on Bayesian process tracing (Bennett, Charman and Fairfield 2021).

III. Process Tracing – Toward a New Research Agenda

Given this state of affairs, process tracers should not put all their eggs in one Bayesian basket, opting instead for a broadened research and teaching agenda on the method. As seen in the last section, the cutting edge for process tracing today is formalization, operationalized primarily through the application of Bayesian logic. This cutting edge defines what the literature has prioritized *and* what it has neglected. Formalization - and the data analysis it facilitates - is the last step in process tracing. By focusing so intently on it, scholars have neglected what comes before: how one does the data collection (within process-tracing methods) and, more fundamentally, meta-theory (ethics; the missing interpretive process tracing).

Going forward, I argue that process tracers should focus precisely on these neglected dimensions. To do the analytics well requires that one have high quality data; we need to think harder about this data collection. Most important, this means a greater focus – as we collect data - on within-process-tracing methods and research ethics. It also means a broadening of research transparency to consider it during data collection. Finally, we need to expand how we collect our data by developing a robust interpretive form of process tracing.

A. Within-Process-Tracing Methods & Ethics

Students of process tracing need to devote more pedagogy and research to the techniques required to execute the method's 'front end' - the data collection - well. When teaching the method, I am struck that most students think it starts when we measure the observable implications of a causal mechanism or – for Bayesians – when we calculate priors on a piece of evidence. But the data for measuring those mechanisms comes from somewhere – typically, interviews, fieldwork and ethnography / political ethnography, archives, surveys, and discourse analysis.

Thanks to the revolution in qualitative methods since the early years of the new millennium, we have a wealth of practical, 'how to' literature devoted to these various within-process-tracing techniques. These include Mosley (2013) and Fujii (2017) on, respectively, positivist and interpretive interviewing; Kapiszewski, MacLean and Read (2015) and Schatz (2009) on fieldwork and political ethnography; Trachtenberg (2006) on archival research; Fowler (2013) and Bryman and Bell (2019, chapters 5-7) on surveys; and Hansen (2006) and Hopf and Allan (2016) on discourse analysis.

Teaching these methods must become a part of our process-tracing pedagogy. Instead of devoting half the short course on process tracing at the APSA convention to Bayesian analysis,⁵ we should instead be giving more attention to these within-process-tracing, data collection methods, which easily constitute the majority of one's time and effort in a process tracing study.

Many scholars cite Elisabeth Wood's (2003) book on the Salvadoran civil war as a process-tracing exemplar (Lyll 2015, 189-191). It is a model because of the richness and quality of her data, gleaned from interviews, political ethnography and her ethnographic map-making workshops. Her process tracing works because she devotes an entire chapter and a part of her conclusions to operationalizing her within-process-tracing methods, discussing

⁵ I have been one of the lecturers at the APSA short course most years since 2014.

how she will use them to draw inferences on insurgent preferences, threats to the validity of those inferences, and the like (Wood 2003, chapter 2; pp.243-46). The data she has gathered is of a very high quality; it sets the stage and provides the raw material for her process tracing. Wood's use of the method is exemplary and transparent because of all this 'front-end' work.

Process tracers thus need to get right the balance between front-end methods training and back-end data analysis. Zaks (2021, 72) nicely captures these tradeoffs and balancing act.

In the context of qualitative research, scholars have a lot more access to training in the analysis of data than they do in the research processes that get them the data in the first place. But the process of research and the processes we are researching are inextricable. Researchers would likely yield greater benefits from intensive training in ethnographic, interview, and sampling techniques; understanding the politics and biases associated with archival work; or even just additional and specialized language training needed to conduct research on a specific topic.

For process tracing as method, this should translate to an equal or greater amount of training on within-process-tracing methods as on data analysis (set theory, Bayesianism).

Beyond training on these various methods, process tracers are also in a position to contribute to their further development. Consider interviews. For many students of process tracing, they are a key method for accessing data on the mechanisms in their account (Wood 2003; Pouliot 2010; Pouliot 2015). Yet for interviews as qualitative method, there are unresolved questions of how to deal with the bias an interviewer inevitably introduces to her interaction with an interviewee. Positivists refer to this as interviewer effects, while interpretivists talk about negotiating one's positionality in the interview (on positionality, see below).

The methods literature, however, is not clear on how one compensates or controls for this source of bias. Positivists – in a very positivist way – basically 'solve' the problem by asking for more data: increase your interview pool (Mosley 2013, 12-13). Interpretivists,

while regularly invoking positionality, are less clear on how reflecting on one's positionality affects/improves future interviews and in what ways (Soedirgo and Glas 2020; Holmes 2020).

My own sense is that a researcher's recourse to positionality is the best way to address the problem of bias in interviews. Process tracers, when using interviews, should thus reflect on their positionality. However, they then need to go the next step and operationalize those reflections. This could involve a two-step procedure. After 4 rounds of interviews – say - the researcher writes up her reflections on how she thinks her race, gender, class status and power are affecting the interviewee and the answers he gives. Then, a crucial second step is to convene a meeting with her project team to debate actionable items for the interviews going forward: How she might dress differently, ask questions in a different way, etc.⁶ Research along these lines would make for more rigorous and transparent process tracing *and* contribute to the methodological literature on interviews and interviewer effects.

Beyond better data, a greater focus on within-process-tracing methods would have the salutary effect of bringing research ethics to the fore. This is a topic on which process tracers have been largely silent – a silence that cannot be excused on any grounds.⁷ In process tracing's less scientific days, I would tell students that it gets you down in the trenches and really close to what you are studying. This is true, and the 'what' is often policymakers, activists, civil-war insurgents, and the like – human subjects in ethics talk. Teaching those additional methods as a part of process tracing – and especially the interviews, field work and ethnography - would drive home the need to address and operationalize the research ethics of the method.

⁶ Ethnographers and interpretive interviewers typically stop with the first step, leaving a scholar unsure what to do with this newly acquired reflexive knowledge.

⁷ Neither of the two main process-tracing texts – Bennett and Checkel (2015), Beach and Pedersen (2013, 2019) - devote a chapter or even a section of a chapter to research ethics.

There are also strategic reasons for process tracers to address ethical issues with more care: The discipline is giving renewed attention to such matters. In part, this has been driven by individual scholars who felt the debate over data access and research transparency was downplaying and undercutting scholarly commitment to ethical principles (Parkinson and Wood 2015; Kapiszewski and Wood 2021). Perhaps more important, the discipline's governing body has taken new action on ethics. In 2020, the American Political Science Association (APSA) adopted new 'Principles and Guidance for Human Subjects Research' (APSA 2020). In that same year, the *American Political Science Review* (APSR) instituted a new procedure where authors must document as a part of the submission process that their research has been conducted ethically and its possible publication raises no additional ethical concerns (see also Knott 2019).⁸

I am not arguing for a separate research programme on the ethics of process tracing, but we should teach more about how one operationalizes the challenging ethics of immersive within-process-tracing methods such as interpretive interviewing and ethnography. And it should be stressed that these operationalizations are all the more challenging when an aspiring process tracer is 'down in the trenches' conducting research on vulnerable populations – refugees, former child soldiers, opposition forces in Putin's Russia, officials from a recently deposed government (Afghanistan), and the like.

At a minimum and since transparency is currently much discussed among process tracers, we need to build modules into our process tracing curricula on the ethics/transparency relation and how we operationalize core ethical precepts (do no harm) in an era of open science.⁹ In making this pedagogical move, there is a rich and growing applied ethics

⁸ This involves far more than stating 'I have IRB approval.' On APSR's new submission procedure, see <https://www.apsanet.org/APSR-Submission-Guidelines> (accessed 22.09.21). The new editorial team reports that in the first 10 months of its tenure, 16% of submissions were returned to authors for clarification about ethical aspects of their research (Hayward, Kadera and Novkov 2021, 47-48).

⁹ Scholars correctly highlight the enhanced transparency of Bayesian process tracing, but at the same time rarely if ever reflect on the possible negative effects of such openness on ethics (Fairfield and Charman 2019, for example).

literature upon which we could draw (Wood 2006; Parkinson and Wood 2015; Fujii 2017; Monroe 2018; Cronin-Furman and Lake 2018; Delamont and Atkinson 2018; Kaplan, Kuhnt and Steinert 2020; Kapiszewski and Wood 2021).

B. Epistemological Pluralism Mark I – Rethinking Transparency

The debate over transparency among qualitative methodologists and process tracers is linked to the broader debate in the discipline over data access and research transparency, or DA-RT (Symposium 2014; Isaac 2015; Symposium 2015; Hall 2016; Symposium 2016; Monroe 2018; Jacobs and Buthe 2021). Despite a professed epistemological pluralism, these discussions have mostly been among positivists. Indeed, of the thirteen reports released by the ‘Qualitative Transparency Deliberations’ in January 2019, only two addressed transparency from an interpretive perspective.¹⁰

Consistent with a core positivist tenet that seeing is believing (Johnson 2006), much of the DA-RT/transparency debate and recommendations have come down to some version of ‘show me the goods.’ This might mean archiving one’s data in qualitative data repositories (Mannheimer, et al 2019); or using active citation (Moravcsik 2010); or attaching numbers to our causal hunches in process tracing to make the logic behind them more visible (Bennett 2015). These are all sensible proposals, but note that they are premised on a separation between the researcher and what she studies – something again consistent with the positivist world view.

So, how might we operationalize transparency principles for a process tracer, with – say – interviews as a key method for data collection? One answer is to employ a combination of active citation and Bayesian logic. However, such a choice would be incomplete as there is a prior, interpretive operationalization of transparency that one needs to consider.

¹⁰ See <https://www.qualtd.net/>. These deliberations and subsequent reports were organized by the American Political Science Association’s Organized Section for Qualitative and Multi-Method Research; see Jacobs and Buthe (2021) for an overview of the process and findings. On the dominant positivist impulses shaping DA-RT, see Isaac (2015).

Active citation works by linking a footnote citing an interview to a transparency index, which contains the interview transcript or excerpts from it. By perusing the index, a reader can better understand the evidence behind a causal claim the author advances in her text (Moravcsik 2014).¹¹ If we stop at this point, however, we are missing important information that allows us to understand the interview excerpt and what it is telling us. As ethnographers would argue – and interviews are a key method for them as well (Gusterson 1996; Gusterson 2008; Holmes 2009) – one needs to ask how that interview data has been shaped and changed by the researcher. How has her gender, skin colour, identity and the power relation inherent in the interview affected how the interviewee answered? In ethnographic/interpretive jargon, this is to reflect upon one’s positionality – and how it has influenced both participants in the interview (Borneman and Hammoudi 2009; see also Borneman 2014).

Returning to active citation’s transparency index, then, more than the raw data would be required. We also need to record – perhaps in a positionality index – how a researcher thinks the interview answers/dialogue were a function of her gender, the way she asked a question, and the like. Transparency is now defined not by what we see, but by clarification of context and researcher-interviewee interaction.

My argument is not to do away with active citation and transparency indices as a way to make within-process-tracing methods more transparent; rather, we need an additional and more foundational layer of transparency. For the latter, Lee Ann Fujii’s work on relational interviewing provides excellent advice - from a fellow political scientist no less - on how to establish one’s positionality in an interview context (Fujii 2017; see also Fujii 2010). If Moravcsik’s transparency index allows us to see the data, a positionality index helps one better understand the social process through which that data was constructed.

¹¹ See also Annotation for Transparency Inquiry (ATI), which is a technologically savvy update on active citation. Kapiszewski and Karcher 2021.

C. Epistemological Pluralism Mark II - An Interpretive Process Tracing

I start with three facts. Fact #1 is that process tracing – initially - explicitly adopted a meta-theoretically plural stance, one creating space for both positivist and interpretative variants (Bennett and Checkel 2015, 10-16). Interpretive scholars in political science – fact #2 – have become increasingly interested in process; this is most clearly seen in the so-called practice turn (Neumann 2002; Adler and Pouliot 2011). Practices are ‘inarticulate, practical knowledge that makes what is to be done appear “self-evident” or commonsensical’ (Pouliot 2008, 258). Practices are built on a relational ontology that mediates between structure and agency (Adler and Pouliot 2015); meta-theoretically, they thus capture process and social mechanisms (Guzzini 2011). In terms of method, this means interpretive scholars need techniques that gather data on and measure process – something like process tracing.

Given these first two observations, fact #3 is a surprise: There is little interpretive process tracing. It is taught virtually nowhere, perhaps because our leading process-tracing texts have almost nothing to say about it (Bennett and Checkel 2015; Beach and Pedersen 2013; Beach and Pedersen 2019).¹² Regarding empirical applications, there are but a handful of published works that utilize interpretive process tracing (Guzzini 2012; Norman 2015; Pouliot 2015; Norman 2016; Robinson 2017; Cecchini and Beach 2020).

This small literature is quite diverse and there is no agreement on what constitutes an interpretive form of the method. For some (Norman 2016), interpretive process tracing is similar to mainstream, positivist/scientific-realist efforts, but operates inductively. Others (Robinson 2017) favor a stronger grounding in an interpretive meta-theory, but it is not clear what the actual process tracing does.

Scholars working on practices have come the furthest in developing an interpretive form of process tracing – perhaps not surprising as social practices are all about process.

¹² On the teaching data, see Section II above.

Pouliot (2015) is explicit on this point: What he calls ‘practice tracing’ is interpretive process tracing. True to an interpretive ethos, he crafts a process tracing that operates inductively, but also takes considerable effort to show how it would work. Pouliot does this by engaging with Bennett and Checkel’s (2015, chapter 1) ten best practices for process tracing, and how they must be modified to work interpretively. His resulting practice tracing occupies a meta-theoretical middle ground, showing how practices create meaning (interpretism), but also thinking hard about how to measure the process through which those practices operate (scientific-realist).¹³

Other scholars working on social practices build upon Pouliot, but argue for additional within-practice-tracing methods. Whereas Pouliot (2015) captures practices through ethnography and interviews, Cornut and Zamaroczy (2020) add an interpretive form of document analysis to this mix. All this work is promising and exciting, as it marks the beginning of a conceptually clear and empirically operationalized interpretive process tracing (see also Sending and Neumann 2011).

At the same time, practice tracers will need to address two challenges. First, it is not clear how either interviews or document analysis can measure social practices.¹⁴ Recall that such practices are ‘inarticulate, practical knowledge’- basically stuff that is implicit and in the deep background. Ethnography, with its commitment to immersion, is best placed to access such background knowledge; it is not clear how asking questions or reading documents can do the same. With interviews and as already noted, the researcher is interfering with and indeed likely changing the interviewee (Fujii 2017). Accessing implicit background knowledge through all this distortion seems next to impossible.

¹³ More generally and at least within my subfield of international relations, the most exciting and innovative theoretical-methodological work occupies precisely this epistemological middle ground. See Hopf (2002), Hopf (2007), Pouliot (2007), Hopf and Allan (2016), Wendt 2021, Katzenstein 2021.

¹⁴ While recognizing they are a clear second best, Pouliot (2010, 66-72) offers a more optimistic take on the ability of interviews to access practices.

Second, whatever additional methods they decide upon, practice tracers need to operationalize them. Consider ethnography, which is the ‘gold standard’ method for practice tracers (Pouliot 2010). When done well, ethnography addresses – before going to the field – two issues that bedevil it: access and ethics. Thinking about the former requires operational plans for dealing with gatekeepers (Gusterson 2008), while getting the ethics right involves much more than ticking the boxes on documents submitted to your institution’s ethics review board (Delamont and Atkinson 2018). Practice tracers – to date – have been silent on both issues.

D. Summary

For process tracing as method, there is a rich pedagogical and research agenda to be pursued. It would rethink and broaden the manner in which process tracing operationalizes research transparency; deepen it (within-process-tracing methods; ethics); and expand it to interpretive forms. This agenda is meant to complement the focus on formalization and (positivist-understood) transparency. Perhaps process tracing needs further formalization, but we should do this with an appreciation of the likely opportunity costs. We may get a more rigorous, transparent version of one type of process tracing: deductive, scientific-realist/positivist. But we will miss an opportunity to develop a richer, more ethically grounded, meta-theoretically plural method.

IV. Conclusions

Process tracing as qualitative method has developed in leaps and bounds over the past 7 or so years. This is seen in the quality of our course offerings, the growing research literature on it, and the efforts by a core of committed scholars – Derek Beach, Andy Bennett, Tasha Fairfield, Stefano Guzzini, Alan Jacobs, Jim Mahoney, Ludvig Norman, Vincent Pouliot, David Waldner, Sherry Zaks - to take process tracing to the next level. Long gone

are the days when leading methodology texts considered it little more than journalistic ‘soaking and poking’ (Gerring 2006, chapter 7).

Process tracing today is focused on the data analysis part of the method. Tools such as set theory and, especially, Bayesian logic allow us ‘to process’ all that process-tracing data in a much more systematic way that enhances the validity of our causal claims. As a result, we tell better, more rigorous causal stories.

In all this teaching and research, process tracers – in two ways - are following and contributing to broader trends in political science. First, like proponents of experimental designs and causal identification strategies (Keele 2015; Samii 2016), students of process tracing have focused their efforts on designs and tools that allow us to nail the causal story. Second, like those experimentalists in the broader discipline, there are opportunity costs and roads not taken because of the emphasis on the data analysis part of process tracing.

With experiments, there are multiple opportunity costs. Theoretically, they force a scholar to zoom in and test a small bit of theory, with the unfortunate effect of generating insights that are at times rather obvious (Hangartner, Dinas, Marbach, Matakos and Xefteris, 2019, for example). Ethically, there are often quite serious issues, but they are not addressed (Carlson, 2020). In terms of validity, experimental designs and their findings do not travel. Finally, while experiments may look (relatively) easy to execute, they in fact are often parasitic on a prior qualitative/process-tracing component to verify that ‘as if random’ is indeed ‘as if random’ – as Dunning has brilliantly argued (Dunning, 2015).

In a similar manner, there are opportunity costs at work and roads not taken if process tracing emphasizes Bayesian analysis and formalization. We get a more rigorous and transparent process tracing, one that excels in data analysis. Yet, we have consequently neglected inductive and interpretive forms of the method, the front-end techniques needed for

high-quality data collection (without which Bayesian data analysis is impossible), and research ethics.

Meta-theoretically, process tracers live in and recognize a social world where multiple mechanisms exist, one or more of which can lead to the same outcome – so-called equifinality. The argument here extends this pluralist view to the social *science* world. Process tracing should continue its current efforts at transparency and formalization, but recognize there are multiple way to improve the method – perhaps travelling down the epistemological, methodological and ethical roads currently not taken. The result will be a richer, more plural method that nails the data analysis – and a whole lot else.

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