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Process Tracing and Elite Interviewing: A Case for Non-probability Sampling

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Abstract

Research in qualitative methodology has increasingly focused on the benefits and practices of ‘within-case analysis’, with a particular focus on the process tracing method as a form of causal analysis. This article focuses on the relationship between process tracing and the role of elite interviewing as a means of data collection, and makes two central points about the relationship between these two aspects of comparative research.

First, the article argues that the importance of elite interviewing as a means of collecting the kind of data necessary to carry out process tracing studies has been neglected to date, and it explores the specific advantages elite interviewing has for process tracing analysis.

Second, the article addresses the implications of using alternative sampling approaches when employing the process tracing approach. In particular, the article argues that when using the process tracing methodology, it is more appropriate to employ non-probability sampling techniques for identifying elite interview subjects, and that randomness should be reduced as much as possible when sampling. Different forms of non-probability sampling are explored, as well as the criteria that should be considered before choosing between them. The article argues for using a combination of reputational and positional criteria, and the use of both purposive and snowball sampling techniques.

Process Tracing and Elite Interviewing: A Case for Non-probability Sampling

Introduction

This article explores the relationship between the method of process tracing and the data collection technique of elite interviewing. The process tracing method has become an increasingly used and cited tool in qualitative research, a trend that is likely to accelerate with the recent publication of Alexander George and Andrew Bennett's text on case study research.¹ That book outlines and explores the process tracing method in detail, highlighting its advantages for exploring causal processes and analysing complex decision-making. Yet while the book presents a rigorous and compelling account of the process tracing method and its critical importance to case study research, the value of method itself remains contested in some quarters and there are aspects of George and Bennett's treatment of it that require further exploration.²

This article identifies one issue that has considerable relevance for process tracing, but that is under-explored in the George and Bennett text, that of elite interviewing. Process tracing requires the collection of large amounts of data, ideally from a wide range of sources. Yet George and Bennett concentrate largely on documentary research, and generally refer to interviewing only in passing. This article seeks to draw together the disparate discussions of interviewing that exist in the George and Bennett book, and supplement them with other insights from the wider literature on interview methods, and elite interviewing in particular. The article focuses on three primary issues: first, the uses of interview data for the process tracing method, second, considerations of how to establish the evidentiary value of interview data, and finally, the implications that the process tracing method has for how researchers should approach the sampling of their interview subjects. In

¹ Alexander L. George and Andrew Bennett, *Case Studies and Theory Development in the Social Sciences*, (MIT Press, 2005).

² For recent critical discussions of the George and Bennett book, see the *Qualitative Methods: Newsletter of the APSA Qualitative Methods Section*, Vol.4, No.1, Spring 2006; and of process tracing specifically, see Jeffrey Checkel, "Tracing Causal Mechanisms," *International Studies Review*, Vol.8, No.2, June 2006, pp.362-370.

particular, the article argues for the use of non-probability sampling approaches to elite interviewing when utilising the process tracing method.

As will be discussed further below, the goal of process tracing is to obtain information about well defined and specific events and processes, and the most appropriate sampling procedures are thus those that identify the key political actors that have had most involvement with the processes of interest. The aim with process tracing is not to draw a representative sample of a larger population of political actors that can be used as the basis to make generalisation about the full population, but to draw a sample that includes the most important political players that have participated in the political events being studied. Consequently, random sampling runs against the logic of the process tracing method, as it creates a risk of excluding important respondents from the sample purely by chance. When sampling interviewees in the context of a process tracing study, the goal will ultimately be to reduce randomness as much as possible, and thus non-probability sampling approaches are the most appropriate.

These considerations in turn speak to recent research that has sought to explore the different criteria that can be used to evaluate certain methodological practices. As Brady, Collier and Seawright have recently observed, a core concern of research design is managing the trade-offs that come with using different methodological approaches. Even with common overarching goals of developing theory and making causal inferences, divergent research priorities can lead to different emphases on the appropriateness of particular methodological tools.³ Consequently, what might be right for one study, for example random sampling, will be inappropriate for another study with a different set of research objectives. The sections below explored these issues in greater depth, beginning with the nature of the process tracing method itself before turning to explore issues of interviewing and sampling.

Process Tracing: Definition and Method

Recent years have seen a significant growth in the study of qualitative methods in political science, with a wide range of new studies addressing core methodological issues such as

³ David Collier, Henry E. Brady, and Jason Seawright, 'Critiques, Responses and Trade-Offs' in Henry E. Brady and David Collier (eds.), *Rethinking Social Inquiry: Diverse Tools, Shared Standards* (Rowman & Littlefield, 2005), pp.195-227.

concept formation, case selection and causal analysis.⁴ One of the strongest contributions of this literature has been to reinforce and further develop the idea that robust causal analysis can be carried out through within-case analysis rather than, or as well as, cross-case analysis. Within-case analysis entails exploring causal relationships with reference to multiple features of individual cases, and especially through a close examination of the intervening processes that link the variables outlined in a hypothesised causal relationship.⁵ Forms of within-case analysis include pattern matching and causal narrative,⁶ the analysis of ‘causal-process observations’,⁷ and the congruence method.⁸ One form of within-case analysis that has received particular attention in recent years is that of process tracing, which has been put forward as one of the core means by which within-case studies can be carried out.

The process tracing method was first developed over two decades ago,⁹ but has been most comprehensively outlined and developed in George and Bennett’s recent text, *Case Studies and Theory Development in the Social Sciences*. That book represents a robust defence of qualitative methodology, and case study research in particular. Touching on a wide range of theoretical, methodological and philosophical issues, *Case Studies and Theory Development* provides guidance for the analysis of case studies, and delineates the ways in which case study research can contribute both to theory development and to theory testing. At the heart of the Bennett and George approach is a concern with developing and testing theory in ways that incorporate attention to the causal processes at work in political life, to the *causal mechanisms* that link causes to effects. The authors argue that causal mechanisms are central to causal explanation, and that case studies and within-case analysis

⁴ For a review of this recent literature, see Andrew Bennett and Colin Elman, ‘Qualitative Research: Recent Developments in Case Study Methods’, *Annual Review of Political Science* Vol.9, 2006, pp.455-476.

⁵ James Mahoney, ‘Strategies of Causal Inference in Small-N Analysis’, *Sociological Methods and Research*, Vol.28, No.4, 2000, 387-424.

⁶ *ibid*

⁷ David Collier, Henry E. Brady, and Jason Seawright, ‘Sources Of Leverage In Causal Inference: Toward an Alternative View of Methodology’ in Henry E. Brady and David Collier (eds.), *Rethinking Social Inquiry: Diverse Tools, Shared Standards* (Rowman & Littlefield, 2005), pp.229–266.

⁸ George and Bennett, Chapter 9.

⁹ See Alexander L. George, “The Causal Nexus Between Cognitive Beliefs and Decision- Making Behavior: The ‘Operational Code’ Belief System,” in Lawrence S. Falkowski, ed., *Psychological Models in International Politics* (Boulder, Colo.: Westview Press, 1979), pp. 95–124; Alexander L. George and Timothy J. McKeown, “Case Studies and Theories of Organizational Decision Making,” in *Advances in Information Processing in Organizations* 2 (JAI Press, 1985), 21-58.

are the methods best able to examine the operation of causal mechanisms in detail.¹⁰ Process tracing is, in turn, presented as the most appropriate method for uncovering such causal mechanisms. As the authors write:

In process tracing, the researcher examines histories, archival documents, interview transcripts, and other sources to see whether the causal process a theory hypothesizes or implies in a case is in fact evident in the sequence and values of the intervening variables in that case.¹¹

The process tracing method 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.¹²

As the first quotation above makes clear, George and Bennett envisage interviews to be one of the central forms of research to be used in applying the process tracing method. Yet throughout their book, interviews are mentioned infrequently, and are only rarely considered in isolation from other data sources, especially archival material and historical secondary sources. As John S. Odell has noted, George and Bennett tend to equate the case study method with the historian's method, and in particular with archival and document-based research.¹³ As a result, while the role of archival work, and its inherent strengths and weaknesses, is discussed in detail, other forms of data collection, including interviewing, are left largely under-explored.

I argue, however, that interviewing, and especially elite interviewing, is highly relevant for process tracing approaches to case study research. Particularly in political science, process tracing frequently involves the analysis of political developments at the highest level of government, and elite actors will thus often be critical sources of information about

¹⁰ George and Bennett, pp.12, 21.

¹¹ George and Bennett, p.6.

¹² *ibid*, p.206.

¹³ John S. Odell, 'A Major Milestone with One Major Limitation' in *Qualitative Methods: Newsletter of the APSA Qualitative Methods Section*, Vol.4, No.1, Spring 2006, p.38.

the political processes of interest. Also, as George and Bennett point out, the process tracing method requires enormous amounts of data in order for causal mechanisms to be identified at every step of the process of interest.¹⁴ It is thus important that all data collection options are considered, and that their strengths, weaknesses and uses are explored in detail.

Elite Interviewing for Process Tracing: Uses, Strengths and Weaknesses

In their discussion of process tracing and case study research more generally, George and Bennett outline a range of uses of data collection, including interviews. These range from gathering basic information about a case¹⁵ and filling in gaps in existing historical accounts,¹⁶ to more theoretical concerns such as finding omitted variables and hypotheses¹⁷ and uncovering causal processes.¹⁸ In this section I focus in particular on elite interviews, and examine the uses of elite interviewing when applying the process tracing method, and also the issues of evaluation that are raised when using this data collection technique to uncover causal processes. The subsequent section of the article then turns to examine issues of sampling that arise when conducting elite interviews in the context of the process tracing method.

Table 1: Uses of Elite Interviews

1. Corroborate what has been established from other sources
2. Establish what a set of people think
3. Make inferences about a larger population's characteristics/decisions
4. Reconstruct an event or set of events

In the wider literature on elite interview, a broad number of uses have been identified for this particular form of data collection:

¹⁴ George and Bennett, p.223.

¹⁵ *ibid*, p.89.

¹⁶ *ibid*, p.96.

¹⁷ *ibid*, pp.18 fn32, 20.

¹⁸ *ibid*, pp.6.

1) To corroborate what has been established from other sources

Elite interview data is rarely considered in isolation, and the goal of collecting such data is often to confirm information that has already been collected from other sources. When documents, memoirs and secondary sources provide an initial overview of the events or issues under examination, interviews with key players can be used to corroborate the early findings. In this way, interviews contribute towards the research goal of triangulation, where collected data is cross-checked through multiple sources to increase the robustness of the findings. By ensuring that data is not collected only from one source, or one type of source, the triangulation strategy can increase the credibility of findings that are supported across multiple sources, and can reveal the weakness of some sources that might otherwise have been viewed as reliable.¹⁹ Conducting interviews with elites can therefore serve the purpose of confirming the accuracy of information that has previously been collected from other sources.

2) To establish what a set of people think

As well as serving a corroborative purpose, elite interviews can also be used for additive purposes, to provide new information that will advance the research process.²⁰ One such additive function of elite interviews is to establish what people think, what their ‘attitudes, values, and beliefs’ are.²¹ While it may be possible to obtain this information from other sources, the interview format allows analysts to probe respondents at length regarding their thoughts on key issues relevant to the research project. As opposed to surveys, interviewing allows researchers to ask open-ended questions and enables the respondent to talk freely, without the constraint of having to answer according to fixed categories. Researchers can thus gather rich detail about the thoughts and attitudes of key elites concerning the central issues of the research project.

¹⁹ For a discussion of triangulation and elite interviewing, see Philip H. J. Davies, ‘Spies as Informants: Triangulation and the Interpretation of Elite Interview Data in the Study of the Intelligence and Security Services’ in *Politics*, Vol.21, No.1, 2001.

²⁰ *ibid.*

²¹ See Joel D. Aberbach and Bert A. Rockman, ‘Conducting and Coding Elite Interviews’, *PS: Political Science and Politics*, Vol.35, No.4, December 2002; and Goldstein Kenneth Goldstein, ‘Getting in the Door: Sampling and Completing Elite Interviews’, *PS: Political Science and Politics*, Vol.35, No.4, December 2002.

3) To make inferences about a larger population's characteristics/decisions

Interviews can also be used not only to gather new data about the beliefs or actions of specific individuals, but also for the purpose of making inferences about the beliefs or actions of a wider group who are not themselves interviewed. When interview subjects are chosen through a process of random selection, and when the broader population of interview subjects is sufficiently large, analysts can obtain a representative sample and generalise from the findings of that sample to the wider group.²² In the context of elite interviews, this can be particularly important when seeking to research the beliefs or activities of key political groups, such as politicians or civil servants, who are too large in number to interview individually. Examples of such generalisations include work of Joel Aberbach and his colleagues, who sampled both politicians and top civil servants in the United States and generalised their findings to the wider population of Congress members and government administrators. Characteristics, traits and actions found through the sample group were inferred to exist also in the population from which the sample was drawn, and general conclusions were made concerning the wider political elite.²³

4) To help reconstruct an event or set of events

Finally, the usage that is arguably most relevant to process tracing entails the conduct of elite interviews in order to establish the decisions and actions that lay behind an event or series of events. Through direct and focused questioning, researchers can reconstruct political episodes on the basis of the testimony of respondents, stitching together various accounts to form a broader picture of a complex phenomenon, and gather detailed information about the process in question. Elite interviews can shed light on the hidden elements of political action that are not clear from analysis of political outcomes, or of other primary sources. By interviewing key participants in the political process, analysts can gain data about the political debates and deliberations that preceded decision making and action taking, and supplement official accounts with first-hand testimony.

²² See Earl Babbie, *The Practice of Social Research* (Wadsworth, 1995).

²³ Joel D. Aberbach, Robert D. Putnam, and Bert A. Rockman, *Bureaucrats and Politicians in Western Democracies* (Harvard University Press, 1981); and Joel D. Aberbach and Bert A. Rockman *In the Web of Politics: Three Decades of the U.S. Federal Executive* (The Brookings Press, 2000).

Elite interviews are thus a potent source of data for political researchers, and can contribute to empirical research in important ways. To a great extent, each of the uses listed above can be pursued using other forms of data collection, but elite interviews have specific advantages that can compensate for weaknesses in alternative techniques.

One of the strongest advantages of elite interviews is that they enable researchers to interview first-hand participants of the processes under investigation, allowing for researchers to obtain accounts from direct witnesses to the events in question. While documents and other sources may provide detailed accounts, there is often no substitute for talking directly with those involved and gaining insights from key participants. The nature of interviewing also allows interviewers to probe their subjects, and thus move beyond written accounts that may often represent an official version of events, and gather information about the underlying context and build up to the actions that took place.²⁴

Other advantages of elite interviews relate to the particular weaknesses of archival documents, as interviews can compensate for both the lack and limitations of documentary evidence.²⁵ Important political processes often lack an accompanying body of documentation, for a range of reasons. Written materials are sometimes not created to document important processes, as participants either feel their actions are not important enough to merit recording them, or instead feel they are too sensitive to document in written form. Over time, important documents may also be lost, as they are unintentionally discarded or as archives are destroyed. Governmental secrecy rules can also ensure that key documents are withheld from public analysis.²⁶

Furthermore, even when relevant archival material is available, documents can still entail some inherent weaknesses that the researcher must remain aware of. In particular, documents can often be incomplete, and can thus present a misleading account of the events they relate to. By presenting the official version of events, documents often conceal the

²⁴ While this paper is not directly concerned with interview technique, the above point suggests that a form of semi-structured interview technique would be appropriate for process tracing related interviews. Set questions can ensure the interview is focused on the theoretical concerns of the research project, and the ability to ask probing follow-on questions will be necessary to ensure as much relevant information as possible is gained from the respondent. For more on the nature of semi-structured interviewing, see Dean Hammer and Aaron Wildavsky, 'The Open-Ended, Semi-Structured Interview: An (Almost) Operational Guide' in *Craftways: On the Organisation of Scholarly Work* (Transaction Publishers, 1989).

²⁵ See Davies, 'Spies as Informants'.

²⁶ *ibid*; and George and Bennett, p.99.

informal processes and considerations that precede decision making.²⁷ They may also present decisions in a way that implies consensus and agreement, when the reality may be that disagreement was extensive and that other, undocumented, decisions may have been considered extensively.²⁸ Finally, in cases where there is an abundance of documentation, the wealth of primary data can become a liability, as the difficulty of sorting through the evidence and prioritising the most important documents increases. Interviewees can often help the researcher cut through this surplus of data, as respondents can distinguish for the researcher the most significant or accurate documents from those that may be marginal or may present a selective account of events.²⁹

When considered together, these observations highlight the particular role that elite interviewing can have in facilitating the process tracing method, and providing the kind of data that can be critical in uncovering the causal processes and mechanisms that are central to comprehensive causal explanations. Process tracing requires the collection of data concerning key political decision-making and activity, often at the highest political level, and elite interviews will frequently be a critical strategy for obtaining this required information. While their corroborative function should not be under-played, it is the additive role of elite interviews that is most relevant when considering their use in association with process tracing. Such interviews can allow the researcher to collect first hand testimony from direct participants and witnesses regarding critical events and processes, and provide the researcher with a means to probe beyond official accounts and narratives and ask theoretically-guided questions about issues that are highly specific to the research objectives. When interviewees have been significant players, when their memories are strong, and when they are willing to disclose their knowledge of events in an impartial manner, elite interviews will arguably be the most important instrument in the process tracer's data collection toolkit.

Yet elite interviews are not a panacea, and have their own limitations and weaknesses as well as strengths. As George and Bennett highlight in relation to evidence more generally, it is necessary to critically assess and weigh the value of collected data, recognising the

²⁷ George and Bennett, p.103.

²⁸ Davies, 'Spies as Informants'.

²⁹ Anthony Seldon and Joanna Pappworth, *By Word of Mouth: Elite Oral History* (Methuen, 1983).

pitfalls that may limit the usefulness of such information along with its benefits.³⁰ While interviews can in many circumstances compensate for the distortions that exist in written sources, it is also sometimes the case that interviewees can misrepresent their own positions in ways that raise questions over the reliability of their statements. In particular, politicians may attempt to slant their accounts, and inflate or minimise their own role in an event or process depending on whether there is political capital to be gained or lost from association with the issues in question.³¹ Also, in their discussion of ‘instant histories’, which rely extensively on interviews with policymakers in the immediate aftermath of a particular event, George and Bennett observe that policy-makers have an incentive to slant their accounts in order to portray a ‘careful, multidimensioned process of policymaking’ to the public.³² It has also been noted that civil servants in some countries are prone to under-representing their role in political decision-making.³³ Furthermore, in many cases interviews will be held some years after the events of interest have taken place, and simple lapses of memory can also limit the usefulness of one-to-one meetings.³⁴

As a result of these potential limitations, it becomes incumbent on the researcher to be aware of the possible drawbacks that come with conducting interviews, and critically evaluate any interviews that are carried out in the research process. In order to evaluate such interviews, however, it is necessary to have criteria against which such interview data can be assessed. George and Bennett themselves provide one framework for assessing the evidentiary value of primary sources, and counsel that researchers should ask four questions when considering particular documents or interviews:

- who is speaking
- who are they speaking to
- for what purpose are they speaking
- and under what circumstances?³⁵

³⁰ George and Bennett, p.99.

³¹ See Mark Kramer, ‘Remembering the Cuban Missile Crisis: Should We Swallow Oral History?’ *International Security*, Vol.15, No.1, Summer 1990.

³² George and Bennett, p.102.

³³ Seldon and Pappworth, *By Word of Mouth*.

³⁴ Kramer, ‘Should We Swallow Oral History’. For a more comprehensive survey of the limitations of elite interviewing, see Seldon and Pappworth, *By Word of Mouth*, Chapter 2.

³⁵ George and Bennett, p.99.

Another set of principles of evaluation has been proposed by Davies, who suggests three more specific criteria that need to be met before elite interviews can be considered reliable.

These are:

- that the information obtained should be from a first-hand witness, and not based on hearsay
- that the level of access of the interviewee to the events in question should be known, with senior level elites to be viewed as more reliable³⁶
- and that, if possible, the interviewee's track record of reliability should be established, with a proven record of reliability ideally established before recollections are taken at face value.

Many other criteria have been mentioned in the literature, including a wide range suggested by Lewis Anthony Dexter in his classic text on elite interviewing. Dexter discusses the evaluation of interview data in broad terms, citing a range of factors to be taken into account, including the style, manner, experience and social position of the interviewee and the comprehensibility, plausibility and consistency of their testimony.³⁷

Ultimately, the final criteria used should be a function of the research objectives, and each researcher will have to decide which criteria are the most relevant given the type of person they are interviewing and the kind of issues that are under discussion. What is generally applicable, however, is that researchers should consider these issues consciously and clearly specify the criteria being used. Furthermore, as Davies councils, even when the reliability of interviewees is considered to be high, multiple sources should be consulted for all significant data points, and levels of uncertainty concerning the reliability and validity of such data should be reported.³⁸

Sampling: Probability and Non-Probability Approaches

Elite interviewing is thus well suited to the process tracing method, and although the technique is to be used cautiously, it has particular advantages that can enhance the search for causal mechanisms. It is not only that case, however, that the potential of elite

³⁶ Note that this is in contrast to a point raised by George and Bennett, that often lower-level officials may be better interview sources given their day-to-day involvement with political processes. See George and Bennett, p.103.

³⁷ Lewis Anthony Dexter, *Elite and Specialized Interviewing* (Northwestern University Press, 1970), p.7

³⁸ Davies, 'Spies as Informants'.

interviewing has implications for the way process tracing should be carried out; it is also the case that the nature of the process tracing method itself also has implications for the way in which elite interviews should be pursued. In particular, using elite interviews for the purpose of collecting data for a process tracing study has implications for the manner in which elite interview subjects should be selected, which is in turn an issue of sampling.

In much of the work that involves elite interviews, elites are selected through random sampling so that findings from the sample can be generalised to the wider population. As Berry observes, most elite interviewing depends on a few well-established templates, especially that elites are chosen at random, and are then subjected to a common interview protocol.³⁹ For research studies that seek to make causal inferences about large groups of elites, such as politicians and civil servants, limitations of time and resources tend to preclude the possibility for detailed interviewing of all the subjects of interest. Instead, a sample of the group is chosen to make studies feasible and retain the possibility of making statements that concern the wider group. Through probability sampling, the rules of selection ensure that the researcher will be able to estimate the relationship of the sample to the population of subjects it was drawn from. As Kidder, Judd and Smith state, certain sampling strategies 'can guarantee that if we were to repeat a study on a number of different samples selected from a given population, our findings would not differ from the true population figures by more than a specified amount in more than a specified proportion of the samples'.⁴⁰

The key to achieving this link between the sample and the population is to draw a representative sample from the wider population of subjects with the use of random selection, where the probability that each unit of the population will be selected for the sample can be specified. This enables the researcher to estimate the extent to which findings based on the sample are likely to differ from findings that would have been obtained from an analysis of the full population.⁴¹ Random sampling, however, does not equate to a disorganised or ill-considered selection of the sample, but rather to a selection of the sample according to a set of rules that ensures each unit of the population has a known probability

³⁹ Jeffrey M. Berry, 'Validity and Reliability Issues in Elite Interviewing' *PS: Political Science and Politics*, Vol.35, No.4, December 2002.

⁴⁰ Louise H. Kidder, Charles M. Judd, with Eliot R. Smith, *Research Methods in Social Relations* (Brace Jovanovich College Publishers, 1991), p.132.

⁴¹ *ibid.*

of being selected. Examples of probability sampling include simple random sampling, where all members of the population are listed, and subjects are chosen from that list in random order. Stratified random sampling is an alternative method of probability sampling, where random selection is balanced with the intentional manipulation of the population list to ensure that certain important categories of subject are not excluded from the sample through chance. For example, a population of voters in the US may be divided into two strata, one including Democrats and one including Republicans, and half of the sample is then selected at random from each sub-group.⁴²

When the goal of a study is to generalise from a sample to the wider group the sample is drawn from, then some form of probability sampling is essential for the robustness of such generalisations. Without the randomness that probability sampling entails, it would be impossible to be certain that the sample was not selected in a biased manner, and that the selection rule is not in some way related to the variables being used in the study. As Epstein and King state, ‘random selection is the only selection mechanism in large-n studies that automatically guarantees the absence of selection bias.’⁴³

Table 2: Advantages and Disadvantages of Probability and Non-probability Sampling	
Probability Sampling	Non-Probability Sampling
<p>Advantages:</p> <ul style="list-style-type: none"> - avoids selection bias - enables generalisations from the sample to the wider population - particularly suitable for Use 3 in Table 1 (as well as Uses 1 and 2). <p>Disadvantages:</p> <ul style="list-style-type: none"> - risks omitting important respondents through chance 	<p>Advantages:</p> <ul style="list-style-type: none"> - control over selection process - inclusion of important political actors - particularly suitable for Use 4 in Table 1 (as well as Uses 1 and 2). <p>Disadvantages:</p> <ul style="list-style-type: none"> - greater scope for selection bias - limited potential to generalise from the sample to the wider population

⁴² See the discussion of sampling in Lee Epstein and Gary King, ‘The Rules of Inference’ *The University of Chicago Law Review* Vol.69, No.1, Winter 2002.

⁴³ *ibid*

Sampling can also take alternative forms, however, and non-probability sampling techniques involve researchers drawing samples from a larger population without the requirement of random selection. The distinguishing character of non-probability sampling is that subjective judgements play a role in the selection of the sample, in that the researcher decides which units of the population will be included in the sample.⁴⁴ While this means the researcher has greater control of the selection process, the trade-off is that such sampling techniques severely limit the potential to generalise from the findings of the sample to the wider population. Given the role that subjective selection plays in drawing the sample, selection bias can easily be introduced, compromising the possibility of arriving at robust findings and generalisations. For example, a researcher may tend towards selecting a certain type of respondent and certain sectors of the population can be systematically omitted from the sample. Similarly, there is no clear way for the researcher to estimate the extent to which the sample resembles the population of interest once the sample is drawn. As a result, many argue that non-probability sampling is inherently inferior to probability sampling, and that it should only be used under limited circumstances, for example when resources are limited. Henry, for example, states unequivocally that ‘only in the cases where probability samples cannot be used are non-probability samples viable’.⁴⁵

Yet is it also the case that non-probability sampling has its own advantages, and that the strength of each approach depends heavily on the aim of the particular study. When the aim is to generalise about a large group of elites, probability sampling has clear advantages that cannot be matched by sampling techniques that do not include random selection. However, if the aim is not to make generalisations from the sample to the population, as with the process tracing method, then non-probability sampling can be assessed using a separate set of criteria, and considerations of the relationship between the sample and population become much less important.⁴⁶

This is precisely the situation that exists in the context of process tracing, when such generalisations are not an aim, and the goal is rather to obtain information about highly specific events and processes. To recap, the aim of process tracing is to uncover the causal

⁴⁴ Gary T. Henry, *Practical Sampling* (Sage Publications, 1990).

⁴⁵ *ibid*, p.32.

⁴⁶ Kidder, Judd and Smith, *Research Methods in Social Relations*.

mechanisms that link independent and dependent variables to one another in a particular context. Often, the causal processes of interest are very specific episodes of decision-making at the elite level, where a limited set of actors are involved in deliberations, decisions and actions regarding the political outcome of interest. In some cases, the number of actors will be so small that sampling of any kind will not be necessary, and it may be possible to interview the total population of relevant elites. More often than not, however, many actors will work on a particular political process, often in different contexts and at different levels of seniority. Limitations on time and resources will thus make it difficult, or impossible, to interview all those who played a role in the process, and it will thus be necessary to draw some type of sample.

The goal when applying the process tracing method, however, will not be to draw a representative sample in order to use interviews to make generalisations about the characteristics, beliefs or actions of the full population of relevant actors, but rather to obtain the testimony of individuals who were most closely involved in the process of interest. While the sample should be representative of the wider population to the extent that it does not systematically exclude a set of actors who played an important role, it does not need to be drawn from the population through random selection as the purpose is not to generalise findings from the sample to the population. This does not mean that process tracing is not concerned with generalisation of any type – on the contrary, once an underlying mechanism is established, the goal will often be to generalise about this mechanism to other contexts. Rather, it is in the act of determining the mechanisms at work to begin with that the process tracing method requires focused attention to very specific actors, events and process.

Thus, when using process tracing, the most important issues to consider when drawing the sample are that the most important and influential actors are included in the sample, and that testimony concerning the key process is collected from the central players involved. In such circumstances, random sampling will be a hindrance rather than a help, as the most important actors of interest may be excluded by chance. Instead, the goal with process tracing is to reduce randomness as much as possible, and work to ensure that the identities of the most important actors are established, and that they are approached directly for interview.

The suitability of the research tool, therefore, will be a function of the specific research goals being pursued. In the case of sampling procedures for elite interviews, the choice of either probability or non-probability approaches will not depend only on practical issues such as available time and resources, but also on methodological considerations derived from the research objectives being pursued. While many argue that probability sampling is inherently superior to non-probability sampling, that position may only hold if the aim is to extrapolate broader generalisations from the sample to a wider range of respondents. In much qualitative research, however, including process tracing, generalisation from a sample to a wider population will not be the aim, and non-probability sampling can be judged on the basis of a different set of criteria. These considerations hold also for other forms of methodological practice and the standards we use to evaluate them. In a recent comparison of quantitative and qualitative traditions in political research, Mahoney and Goertz have highlighted that the different norms and assumptions underlying the two traditions will suggest different methodological practices, and that ‘what is good advice and good practice in statistical research might be bad advice and bad practice in qualitative research and vice versa.’⁴⁷ As discussed above, methodological choices involve trade-offs, and how we evaluate those trade-offs and develop research designs on the basis of those evaluations will depend strongly on the assumptions we hold and the research aims we are seeking to pursue.

These considerations suggest that when using the process tracing method, there are also strong imperatives for using non-probability sampling approaches to elite interviewing. This in turn raises the issue of which form of non-probability sampling is most appropriate to use when applying the process tracing method. As with probability sampling, there are a number of types of non-probability sampling, each with varying rules for selecting the final sample.

Convenience Sampling (also known as availability or accidental sampling)

This form of sampling involves the researcher selecting the most readily available respondents, regardless of characteristics, until the required sample size has been achieved. As its title suggests, the primary advantage of this sampling method lies in its convenience –

⁴⁷ James Mahoney and Gary Goertz, ‘A Tale of Two Cultures: Contrasting Quantitative and Qualitative Research’, *Political Analysis*, 14, 2006, p.246.

there are no strict selection rules and the sample can be drawn in whatever way is easiest for the researcher. Yet its primary drawback derives from exactly the same feature – without any selection rules, there is no way to tell what wider population the sample group represents, or how the sample might differ from other potential samples. An example of this form of sampling is the use of a class of students by a professor as a sample of the wider student body – while interviews with members of the class may reveal a range of student opinions, without knowledge of the relationship of the sample group to the wider student population, the scope for robust generalisations will be severely limited.

Quota Sampling

Another sampling method overcomes some of the problems of convenience sampling by seeking to ensure the sample is selected so that certain characteristics are present in the sample in proportion to their distribution in the wider population. For example, a researcher might ensure that the chosen sample includes ethnic groups in the same proportion as they exist in the wider population, so that no groups of interest are excluded through chance. The method provides the researcher with a greater degree of certainty regarding the make up of the sample and its relationship to the broader population of interest.

As with most sampling methods, however, there are certain drawbacks to this selection method. First, the researcher must know about the characteristics of the population beforehand, which is not always possible. Second, there is no way for the researcher to be sure that while the sample is representative of the population on the characteristics of interest that it is also representative regarding other characteristics that may be important, for example class as well as ethnicity. Even though certain proportions are guaranteed in the sample, the selection rules or the inadvertent biases of interviewers may lead to the over-representation of subjects with other particular characteristics.⁴⁸

Purposive Sampling

Purposive sampling is a selection method where the purpose of the study and the researcher's knowledge of the population guide the process. If the study entails interviewing a pre-defined and visible set of actors, the researcher may be in a position to identify the

⁴⁸ *ibid.*

particular respondents of interest and sample those deemed most appropriate for the research needs. As Kidder et al suggest, the basic assumption of purposive sampling is that with good judgement and an appropriate strategy, researchers can select the cases to be included and thus develop samples that suit the needs of the study.⁴⁹ An example here is the strategy of market researchers who stand on busy streets and seek to question passers-by – often they have a specific target group in mind and will purposefully try to interview people of a certain age, race or gender, ignoring those that do not fit the criteria.

Snowball/Chain-referral Sampling

One of the most well known forms of non-probability sampling is the snowball sampling method, which is particularly suitable when the population of interest is not fully visible, and where compiling a list of the population poses difficulties for the researcher.⁵⁰ Common examples of the use of snowball sampling involve sociological studies into hidden populations who may be involved in sensitive issues or illegal activities, such as drug use and prostitution.⁵¹ Yet the method is also used in political science and the study of elites, where the most influential political actors are not always those whose identities are publicly known.

The snowball, or chain-referral, sampling method involves identifying an initial set of relevant respondents, and then requesting that they suggest other potential subjects who share similar characteristics or who have relevance in some way to the object of study. This second set of subjects is then interviewed, and also requested to supply names of other potential interview subjects. The process continues until the researcher feels the sample is large enough for the purposes of the study, or until respondents begin repeat names to the extent that further rounds of nominations are unlikely to yield significant new information.

As with random sampling, the snowballing method is not as un-controlled as its name might suggest. The researcher is heavily involved in developing and managing the initiation and progress of the sample, and seeks to ensure at all times that the chain of referrals

⁴⁹ *ibid.*

⁵⁰ Babbie, *The Practice of Social Research*.

⁵¹ See Patrick Biernacki and Dan Waldord 'Snowball Sampling: Problems and Techniques of Chain Referral Sampling' *Sociological Methods and Research* Vol.10, No.2, November 1981.

remains within boundaries that are relevant to the study.⁵² One of the dangers with snowball sampling is that respondents often suggest others who share similar characteristics, or the same outlook,⁵³ and it is thus also incumbent on the researcher to ensure that the initial set of respondents is sufficiently diverse so that the sample is not skewed excessively in any one particular direction.

Sampling for Process Tracing

As discussed above, non-probability sampling is particularly suited to the process tracing method, where the aim is not to generalise to a wider population from a smaller sample. Yet the question, therefore, is whether there is a particular form of non-probability sampling that is appropriate for process tracing projects. Answering this question requires consideration of the kind of criteria that researchers may wish to use in their studies in order to select their respondents for elite interviews, which in turn may vary from project to project. This section discusses two criteria in particular that will have relevance for many process tracing studies, and explores which forms of non-probability sampling might be suitable to apply once the specific criteria have been selected.

In the first approach, the researcher uses positional criteria to identify desirable respondents; that is, the analyst specifies a set of positions, or occupations, of key elites that are the focus of the study. The central characteristic of this approach is that researcher has sufficient knowledge of their area of interest, and sufficient knowledge of the political structures of relevance, to identify *ex ante* the *type* of actor that will be interest. For example, in a study that seeks to examine the involvement of senior civil servants in specific governmental processes, it may be possible to specify in advance the type of respondent that will be required, and the positional criterion might simply be that all respondents should be top-level bureaucrats in a particular government department. In some cases, these individuals may be publicly known or easily identifiable, and a form of purposive sampling will be most appropriate for selecting the specific subjects for interview. If information on the identity of top-level bureaucrats is lacking, however, it may

⁵² *ibid*

⁵³ Seldon and Pappworth, *By Word of Mouth*.

be necessary to initiate a snowball sampling process to identify the key individuals who hold these positions, starting with the known civil servants and using a chain of referrals to identify the unknown actors who occupy the specific positions of interest.⁵⁴

An alternative approach to the use of positional criteria is one that entails reference to reputational criteria in the selection of respondents. This approach does not involve defining the desired set of respondents according to the particular positions they hold, but rather according to the extent to which they are deemed influential in a particular political arena by their own peers. Instead of having a fixed category of actors, researchers are open to including respondents from any political arena or position that may have played an important role in the political process of interest. With this method, the snowball sampling method is particularly appropriate, as it is impossible for the researcher to know, in advance of consulting an initial set of elites, which individuals will be viewed as having the greatest influence in the area of interest. Consequently, the most appropriate method of establishing a sample based on reputational criteria is to identify an initial subset of respondents based on their known relevance to the research topic, and then initiate a chain-referral process whereby these respondents are then asked to provide a list of people they feel are influential in the same field. This procedure is then repeated with the new nominees once fresh names have been proposed by the initial set of respondents. Farquharson has argued that this reputational snowball method is successful at identifying influential actors who might otherwise have been ignored, as elites can often suggest influential players who researchers may not initially have presumed relevant to the study. Similarly, this method has advantages in assessing the *level* of influence of key elites, as the number of nominations that each person receives provides an indication of their stature within a policy or issue arena. Where an individual receives several nominations from peers, it suggests they may be particularly influential in their field, and thus be a critical interviewee subject.⁵⁵

Deciding between these alternative approaches to sampling elites for interview will often be a function of the research goals, and in some cases it may be clearly preferable to

⁵⁴ For examples of the use of positional criteria, see Bogdan Denitch 'Elite Interviewing and Social Structure: An Example from Yugoslavia' *Public Opinion Quarterly*, Vol.36, 1972, 143-58; and Sharon Werning Rivera, Polina M. Kozyreva and Eduard G. Sarovskii, 'Interviewing Political Elites: Lessons from Russia', *PS: Political Science and Politics*, Vol.35, No.4, December 2002.

⁵⁵ Karen Farquharson, 'A Different Kind of Snowball: Identifying Key Policymakers', *International Journal of Social Research Methodology* Vol.8, No.4, October 2005.

choose one approach over another. However, when using elite interviews as part of a process tracing method, this article contends that a combination of the two approaches is an optimal method. As process tracing involves obtaining information about a very specific set of events or processes, it will usually be the case that it is possible for the researcher to identify a key set of relevant actors according to their positions, for example, by virtue of their membership in a government committee, or their holding a senior cabinet position in a relevant department. Process tracing will thus generally involve some form of purposive sampling, especially in the early stages of a project, as researchers select respondents according to the position they have held and their known involvement in a political process. However, as process tracing seeks to uncover as much information as possible about political processes, and establish the fine-grained associations that link independent to dependent variables, it is imperative that the researcher strives to obtain all the information that could contribute to reconstructing the processes of interest. It is thus necessary to be open to the possibility that the process in question was influenced by unknown or unexpected political actors that may have held political positions that were initially not considered relevant or important. In order to avoid missing such individuals, and thus omitting key political figures from the sample of interview respondents, it is necessary to select respondents according to reputational as well as positional criteria. Initiating a chain referral sample with known participants can thus identify not only the occupants of key positions that have been identified in advance, but can also shine light on the role of important actors who may have played a role from an unlikely or unpredictable position. The sampling method can thus contribute to the process tracing method, as information is collected from a complete set of relevant players, and no significant actors are omitted from the study as a result of the selection rules.

Conclusion

Process tracing provides a crucial method for the analysis of complex political phenomena, and rightly places an emphasis on uncovering the causal mechanisms that connect independent to dependent variables. By prioritising fine-grained research that seeks to identify the critical steps and stages of political processes, the process tracing method

allows scholars to both generate and assess critical data, and thus to enhance their efforts both at theory development and at theory testing. Yet discussions of process tracing to date have been somewhat selective in their treatment of the kinds of data collection strategies that are appropriate for this method. In particular, there has been a tendency to emphasise the historical method and archival research over other forms of data collection. This article has argued that elite interviewing should also be viewed as an appropriate, and at times critical, form of data collection in the context of a process tracing project. Although interviewing produces data that faces many of the same challenges of evaluation and reliability faced by other forms of data, it enables researchers to move beyond written sources, and ask probing, theoretically-driven questions of key participants in the events and processes of interest. By allowing researchers to communicate with key players directly, and by enabling them to frame that communication according to theoretical interests and priorities, interviews can facilitate the collection of data that is highly relevant and specific to the research objectives being pursued.

This article has also sought to highlight the implications that the process tracing method has for the approach researchers should take to the elite interview process, and especially to the selection of the interview sample. In political science, it is regularly suggested that the ideal method of selection is through probability sampling, and that the advantages of non-probability sampling are limited. Yet such suggestions rest on the assumption that the sample will be used as a source from which to generalise findings to the population, and this is not the case when process tracing is being pursued. In this situation, the aim is profoundly different, as scholars seek highly specific information about highly specific events and processes. Once such processes are reconstructed by the researcher, and findings about the relationships between the variables and causal mechanism are made, it may then be desirable to generalise about those processes to other cases. But in reconstructing that initial process, the aim of collecting interview data is to obtain specific data to fill in a specific gap, and not to abstract to a wider population of interviewees.

In order to pursue non-probability sampling, however, researchers need to consciously consider the criteria they will use to select their interview respondents. Two approaches have been discussed, based respectively on positional and reputational criteria, and both have relevance for process tracers. It is the contention of this article that neither approach

should be pursued in isolation from each other, and that the ideal strategy when using the process tracing method is to combine the positional and reputational approaches when sampling potential interview subjects. In this way, researchers can not only interview a set of political actors that their research objectives suggest will be highly relevant, but will also open their research to the possible inclusion of other influential players who may not be obvious *ex ante* – that is, political actors that will only be identified by their peers through a process of sampling based on reputational criteria and chain-referral sampling. Whatever method is ultimately selected, it is imperative that qualitative researchers be aware of both the advantages and disadvantages of elite interviewing, especially when used in conjunction with process tracing, and that the decision to use this form of data collection, and the manner in which interview respondents are collected, are based on informed methodological reasoning.