

ASSESSING PARTNERSHIPS' IMPACT THROUGH PROCESS TRACING – A METHODOLOGICAL GUIDEBOOK

Marijn Faling – September 2020

TABLE OF CONTENTS

INTRODUCTION.....	2
1. GET TO KNOW PARTNERS AND PARTNERSHIP.....	2
2. IDENTIFY FOCUS OF THE PROCESS TRACING EXERCISE.....	2
3. DETERMINE THE OUTCOME OF INTEREST.....	2
4. IDENTIFY RELEVANT ACTIVITIES AND OUTPUTS.....	2
5. LINKING INTERVENTION AND OUTCOME.....	2
6. IDENTIFY EVIDENCE TO UNDERPIN PROCESS.....	2
7. COLLECT DATA TO UNDERPIN PROCESS.....	2
8. ASSESS EVIDENCE FOLLOWING BAYESIAN LOGIC.....	2
9. ESTABLISHING CONFIDENCE IN THE MECHANISM.....	2
CONCLUSION.....	2
REFERENCES AND FURTHER READING.....	2

Postal address

P.O. Box 1738
3000 DR Rotterdam
The Netherlands
Tel. +31 10 408 1126
Email prc@rsm.nl

Visiting address

Mandeville Building
Burgemeester Oudlaan 50
3062 PA Rotterdam,
The Netherlands
www.rsm.nl/prc



FOUNDED BY

Rotterdam School of Management
Erasmus University

RSM
Erasmus

INTRODUCTION

Why this guide?

This guidebook provides a stepwise guidance to undertake process tracing on partnerships for development. It aims to equip relevant stakeholders, such as researchers and evaluators, with support on how to undertake process tracing in studying partnerships for sustainable development. It is a practical guide to help practitioners and researchers with setting up and conducting a process tracing study. By sharing recommendations based on experience, it envisions to address some of the challenges involved in this process, highlight the limitations, and provide suggestions for a smooth research process.

Why process tracing?

Many present-day development interventions involve a multiplicity of parties in addressing intractable issues, including poverty and food security. This leads to various challenges related to the evaluation of these partnerships (Brinkerhoff, 2002; van Tulder et al. 2016). Most importantly, untangling the contribution of partnerships to development is a daunting task in interventions characterized by a multitude of partners, which are operating in non-linear and unpredictable environments to address multi-dimensional problems (Schmitt & Beach 2015; Wadeson et al. 2020). At the same time, commissioners of impact evaluations are increasingly interested in contribution-related questions (Befani & Stedman-Bryce, 2017). This has increased the demand for tools and approaches that help understanding how and why change happens, and what role partnerships play in this process.

Whereas conventional approaches to evaluate impact – such as randomized controlled trials, counterfactual approaches or statistical methods to establish a frequency of association between interventions and outcomes – identify cooccurrence in a robust way, these approaches are of limited use when we want to understand how and why a specific result came about (the causal relationship). They thus fail to actually unpack what is often referred to as the black box of impact evaluation (Schmitt and Beach 2015; Punton and Welle 2015, Ton et al. 2011). Theory-based evaluation approaches – such as contribution analysis and realist evaluation – are a partial answer to these shortcomings. However, to rigorously evaluate a program's impact, there is an additional need for systematically testing the assumptions underlying hypothesized causal processes, and for clear guidelines to evaluate and appreciate observations and data (Schmitt & Beach 2015). Addressing this need requires a widening and professionalization of the impact evaluation toolkit.

Process tracing, although existing as a methodology for quite some time in the social sciences (especially history and political science) has recently entered the field of impact evaluations to address these questions. The approach is currently being adopted by various leading organizations in international development, including the World Bank, Oxfam GB, CCAFS-CGIAR, and the Centre for Development Impact. It offers a systematic and transparent account to test program assumptions and untangle the interplay of complex interventions, relationships and processes in a given change process (Vogel, 2012, Wadeson et al. 2020).

Process tracing is essentially about linking cause (the initiative) to consequence (the development impact). It helps to explicate causal processes (or “mechanisms”) linking intervention to impact while identifying clear indicators to assess the plausibility of the hypothesized causal process. It is a tool for data collection and analysis, that helps to assess the strength of evidence for specified causal relationships, within a single or comparative case study design. Process tracing is based on the notion that causal processes usually leave a ‘rich empirical trail’ of evidence, which can be collected in many different forms (Blamey and McKenzie 2007, Mayne 2012). This triangulation of data sources enhances reliability of findings, as reliance on stakeholder perceptions might result in biased conclusions. It offers the potential to evaluate impact through establishing confidence in how and why an impact occurred using so-called probability tests.

Adopting a qualitative approach based on process tracing to assess impact of partnerships has the potential to offer the following advantages:

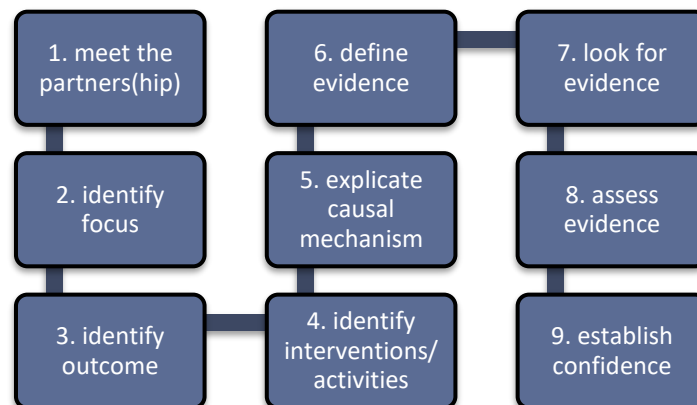
- Creating a clear account of the causal steps that lead from intervention to impact enables the identification of different levels and types of impact and helps in laying bare where and why expected results did (not) occur.
- The rigorous and transparent collection and assessment of ‘evidence’ underpinning the relationship between intervention and impact supports public accountability efforts.
- Creating and comparing different modalities of private sector engagement and their respective causal processes leading to impact, help identify preferred modalities for different situations and purposes.

How to use this guide?

We recognize that the focus, scope and process of process tracing exercises may differ among studies, depending on needs and circumstances. Therefore, this guidebook does not aim to be prescriptive in terms of how a process tracing study should be organized. Rather, it attempts to provide the basic components of a process tracing study and offer practical advice on how a study could be organized.

The following chapters provide an overview of the steps involved in undertaking a process-tracing study, from meeting the partners to evaluating data (figure 1). Undertaking a process tracing study on partnerships for development starts with (1) getting to know the partners and/or partnership, (2) identifying the exact focus of the study, (3) identifying the outcome of interest, (4) identifying interventions and activities that most likely contributed to the outcome of interest, (5) explicating the causal mechanism to link interventions to the outcome, (6) defining what evidence of this process looks like, (7) collecting the stated evidence, (8) assessing the collected evidence, and (9) concluding by establishing confidence in the causal mechanism.

Figure 1. a stepwise approach to process tracing



1. GET TO KNOW PARTNERS AND PARTNERSHIP

- Familiarize yourself with the partnership approach through desk study
- Organize an interactive session to meet the partners

Before you start with the process tracing exercise, familiarize yourself with the partnership under research. Get clarity on the intervention being evaluated: what is the program trying to change, how is it working to effect these changes, and what assumptions is it making about how the partnership realizes these changes. This can be done through simultaneously:

- Reading partnership documentation
- Engaging in exploratory discussions with the partners (either one-to-one discussions or joint meetings)
- Consulting academic literature on the topic to find a valuable angle and (causally) structure the intervention logics of the partnership.

When consulting program documentation, keep in mind that programmes usually change over time. Information from documents should therefore always be checked against discussions with key participants in the program. This helps to identify the partnership's most recent outcomes and the actual activities towards these outcomes, rather than focusing on what was initially planned. Keeping track of the changes in the partnership's approach over time is important, because these, together with the explanations for change provide insights into the contextual factors that facilitate or hinder interventions.

Practically, this step means you undertake an interactive and participatory process in which you acquaint yourself with the partnership based on the following questions:

- What was intervention trying to achieve (outcomes)?
- Has this outcome been achieved?
- How has this outcome been achieved (strategy and activities)?
- How will the partnership contribute to these changes (key assumptions)?
- Who are relevant actors and drivers of change?

It is important to invest in the relationship with the partners from the onset. Partners involved will know a lot about intervention and outcome, will therefore be able to provide a detailed account of (their perspective on) the process, and may be valuable in selecting the causal process(es) of most interest or relevance. Furthermore, the better the relationship with the partners, and the better the mutual insights in each other's interests and objectives, the easier it is to pursue the next steps. For instance, it makes it easier to approach partners for additional data, and check some of your preliminary thoughts and findings with the partners. At the same time, this might also help in that the partners will approach you when they come across something they think might help you in advancing the research, or it might help you to tailor the research focus to the needs and interests of the partners, obviously within the boundaries of the research.



Participation of partners in the process tracing study can be invaluable for the quality of research process and outcome. However, it should also be noted that engagement of partners in the study can be political and may bias the focus and direction of the study. Stakeholders might have their personal and professional preferences, which could (unintentionally) lead them to steer the study. This is something that cannot be averted entirely. Rather, it is something to be kept in mind when undertaking the study.

2. IDENTIFY FOCUS OF THE PROCESS TRACING EXERCISE

- Clearly demarcate the focus of the research to avoid an overload of work
- Determine whether the objective of the research is to explain an outcome, identify the consequences of an intervention, or understand the process in between intervention and outcome

After you have familiarized yourself with the general approach of the partnership, the interest of the partners, and the general objectives of the research, you can pursue to identify the focus of the process tracing study. Process tracing is a very precise methodology, meaning it enables to learn a lot about a very specific process. This means that clear choices need to be made to identify a clear and demarcated focus of the research. There are different possibilities related to the kinds of questions raised, that determine the approach of the process tracing exercise. Basically, there are three options:

- a) **explaining outcome process tracing**, whereby the starting point is the outcome, and process tracing is used to fully explain the factors that contributed to it;
- b) **theory-building process tracing**, whereby the starting point is a certain (set of) activity and process tracing is used to trace-forward their impact;
- c) **theory-testing process tracing**, in which the starting point is a certain mechanism of interest and process tracing is used to assess whether, how, and why it has occurred.

In the case of **explaining outcome process tracing**, a limited number of outcomes are identified, which can be identified in consultation with the partners. This variant of process tracing is relevant in case:

- We know what the outcome is, and we want to investigate how this outcome has come about, as we do not know what caused the outcome to occur.
- We know what the outcome is, and we want to explore whether the intervention has contributed to the outcome.
- We are interested in fully explaining why the impact/outcome happened and like to work out all the factors that contributed to it in order to create an explanation for the outcome.

In the case of **theory-building** process tracing we identify activities that are of interest, and trace-forward their impact. This variant of process tracing is relevant when:

- We know the intervention and the outcome, and we think there is a link between the two.
- We know the outcome but are not sure what caused it.
- We do not know why/how the intervention/activity led to the outcome (we do not have a theory of change).

In case of **theory-testing**, we identify the mechanism that stakeholders are interested in, and test whether this occurred (or not), and why. We decide on theory testing in case:

- We know the intervention and the outcome.
- We suspect a causal link between the intervention and the outcome (and we know that the outcome occurred at least partly due to the intervention).
- We have a clue about why/how the activity led to the outcome.



Though it appears as if the different variants of process tracing are clearly distinguishable, in reality the exercise is often a combination of different variants. In impact evaluations the intervention is almost always known, the outcome has already occurred, and stakeholders are generally interested in the relationship between the intervention and the outcome. Often, they already have an idea of how intervention and outcome are linked, for instance because the partnership works with a theory of change. This means the process tracing exercise will blend theory-testing and explaining outcome. Therefore, this guide roughly follows an explaining-outcome approach to process tracing. However, the steps are by and large relevant considering the other variants of process tracing, though these might require a different sequence of steps.

3. DETERMINE THE OUTCOME OF INTEREST

- Identify the outcome(s) of interest to the research
- Assess whether outcome(s) have occurred through a preliminary assessment of evidence and through triangulation

In explaining outcome process tracing, the next step is to identify the (intermediary and final) outcomes of interest by asking the following questions:

- what are the outcomes of interest to the research?
- what would evidence about the manifestation of these outcomes look like?

Determining the focus can be done in consultation with key stakeholders from the partnership. Be as specific as possible about the outcome of interest. You want to make sure that the outcome occurred exactly like you think it did. In all cases, you therefore need to check the actual occurrence of the outcome and the suitability of the proposed evidence of this outcome with other stakeholders. Therefore, in this step you should also engage in some preliminary data collection to find evidence of the actual occurrence of the outcome of interest. It is always preferable to identify multiple sources of evidence to guarantee that you can demonstrate the outcome has taken place (triangulation), in case a single piece is not conclusive, or cannot be found. Data can be in the form of interviews with insiders and outsiders, reports, survey results, news items, and many more. It might be that following data collection multiple outcomes can be identified, or that the outcome as indicated by stakeholders needs to be specified or downgraded.

It could be valuable to identify unintended outcomes (both positive and negative) of the program as well (for instance, if one is interested in a comprehensive understanding of how an intervention worked). In that case, also identify possible evidence on these outcomes.



In many instances the number of targeted outcomes and relevant associated (and intermediate) outcomes that have actually materialized may be too numerous to investigate with sufficient rigor, given the time and resources you have available to undertake the research. Furthermore, when working with partnerships, partners usually have differing objectives, and therefore differing viewpoints of what would be the desired focus of the research. In such instances, it is both desirable and necessary to work with relevant stakeholders to agree on a shortlist of outcomes (and associated interventions) to focus the evaluation on. It should be very clear to all involved stakeholders that a selection needs to be made, and what the selection will be. This requires that the partners understand the general idea of process tracing, and what it is (not) capable of doing. Otherwise, partners might not understand the value of process tracing, they might expect too many things to be included, and will not understand why so many potentially interesting angles are excluded from the research.

4. IDENTIFY RELEVANT ACTIVITIES AND OUTPUTS

- Identify the activities and outputs that have caused the outcome(s) to occur

After the outcome of interest has been identified, demarcated, and agreed upon, you should get an overview of the partnership's activities and outputs that have (likely) contributed to the outcome of interest. This will enable you to trace the causal mechanism from intervention to outcome. As part of this step you need to check documented (planned) activities with key stakeholders' views to see if all planned activities were actually implemented, in the same form as planned. Make sure to triangulate stakeholder sources to assess alignment between partner perspectives and those of 'recipients' and additional stakeholders. If not, see if you can get certainty about what actually happened. The aim in this step is to get substantive understanding of breadth and depth of various activities and initiatives that have a link to the outcome under investigation.



At this point you might collect a variety of activities and outputs, while it is not clear for every activity or output whether and how there is a link with the outcome. At this point this is fine. Drawing a causal mechanism will likely lead to the elimination of one or more activities that appear of limited relevance in light of the mechanism under study.

5. LINKING INTERVENTION AND OUTCOME

- Identify the causal mechanism linking activities/outputs and outcome
- Mechanisms consist of *entities* engaging in *activities*, and are formulated as testable hypotheses
- Describe the context within which the mechanism is expected to function

Although in this document the steps are presented as chronological and sequential, the following steps could be undertaken (partly) in parallel to steps 3-4.

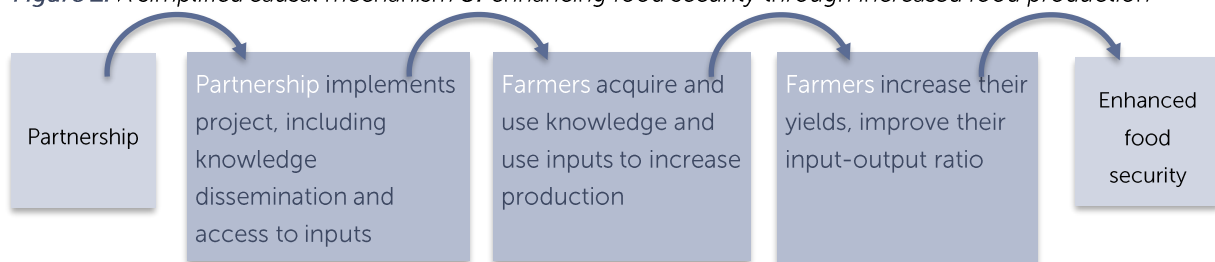
When the outcomes and activities that occurred have been confirmed or falsified, the scope of the research is clear. The next step is to explore the exact chain of events, the 'causal mechanism' that links the intervention to the outcome. The causal link between activities and outcome is composed of what we refer to as the 'causal mechanism'. Each part of the mechanism can be described in terms of *entities* (these are nouns: actors, organizations, structures) engaging in *activities* (these are verbs: the producers of change, or what transmits causal forces or powers through a mechanism). Each part of the causal mechanism can also be framed as a testable hypothesis. This step is based on a combination of (academic) literature and stakeholder consultation

and involves identifying the set of hypotheses about how the activities from the partnership have realized the impact under study. This involves drawing a causal storyline. A simplified causal mechanism displaying an intervention to improve food security is displayed in figure 1.

A testable causal mechanism is characterized by the following criteria:

- The causal mechanism exhibits what is called *productive continuity*, whereby each of the parts logically leads to the next part, with no large logical holes in the causal story linking activity and outcome.
- At the same time the mechanism should not get too detailed, as each part of the mechanism needs to be *necessary* and there should be no superfluous parts which are not required for the mechanism to operate.
- Each part of the causal mechanism should be empirically measurable and formulated as testable hypothesis

Figure 2. A simplified causal mechanism of enhancing food security through increased food production



In this step you will probably go back and forth between your conceptual depiction of the causal storyline, and partners' perspectives. This step should again preferably be made in consultation with different stakeholders. It is always useful to incorporate alternative explanations of the outcome in your research. Ruling these out enhances the credibility and legitimacy of the partnership.

It is well possible that different stakeholders have different viewpoints on how the partnership has contributed to the outcome. If partners disagree, the challenge is to find a set-up that is general enough that all can agree on and that will allow you to continue your research. In general, translating partners' own interpretations of the change process into an explicit, formal theory is a crucial, but challenging aspect of the research.

In case no agreement can be reached, it might be interesting to draw several hypothesized causal mechanisms (based on different partners' interpretations) and focus the study on identifying for which of the theories evidence can be found. In any case, the development of the causal mechanism takes time (and most likely several rounds of iteration).

Apart from drawing the causal mechanism, in this step it is also essential to identify the contextual conditions under which the identified mechanism is expected to operate. It is not always clear and straightforward what should be perceived as active part of the mechanism, and what should be considered context. As a general principle, those factors that are constant over time, and influence the process without undergoing change themselves, can be considered context. Contextual conditions may relate to the causal mechanism in its entirety or may be relevant to a particular part of the causal mechanism.



There is a close relationship between a partnership's theory of change (ToC) and the causal mechanisms identified for process tracing exercises. In impact evaluations, ToCs often serve as testable theory, and as such inspire the formulation of causal mechanism(s) linking intervention and outcome. However, note that a ToC is not the same as a causal mechanism. There are some important differences that need to be kept in mind. ToCs and causal mechanisms are drafted for different purposes. ToCs often serve to be exhaustive in their design, trying to capture the entirety of interventions and outcomes. Productive continuity is usually not a key concern for ToCs. Causal mechanisms on the other hand, usually serve to focus on a selection of interventions and outcomes and detail the causal processes in between. Causal mechanisms are usually much more granular than ToCs, and this level of detail is needed in order to allow for empirical testability of the hypothesized causal process. Nevertheless, causal mechanisms can be designed at various levels of detail, depending on the purpose of the research. Whereas some causal mechanisms only identify the general causal processes in between intervention and outcome (e.g. 'partners engage in advocacy'), other illustrate processes in detail (e.g. 'partner A drafts campaign strategy'; 'partner B launches social media campaign'). Furthermore, causal mechanisms can be identified at different levels, from micro (individuals engaging in activities) to macro (where e.g. norms and relational structures play an important role in mechanisms as well). The choice of level thus depends on the level at which the empirical issue or process of interest is best studied.

6. IDENTIFY EVIDENCE TO UNDERPIN PROCESS

- Each causal link in the mechanism needs to be substantiated with evidence
- The usefulness of potential evidence can be assessed according to its necessity and sufficiency

To assess whether the hypothesized causal mechanism holds in reality, you need to find evidence to prove your theory. Each causal link (each hypothesis) in the mechanism needs to be validated with evidence. Discuss with key stakeholders what kind of evidence could serve to substantiate the process linking activities and outcome, if the hypothesized causal story proves to have occurred. To assess the usefulness of evidence, use the following indicators:

- **Necessity:** is this piece of evidence necessary to be present for the hypothesis to hold?
- **Sufficiency:** is the piece of evidence, if found, sufficient on its own to guarantee the existence of the step in the causal chain?

If the answer to both questions is 'no', this means your evidence will not very strongly underpin your hypothesis. This means you should think about additional evidence to make your case. It is always preferable to identify

multiple sources of evidence, in case a single piece is not conclusive, or cannot be found. There are different types of evidence, for instance:

- **Account evidence:** the content of empirical materials such as interviews, observations, meeting minutes.
- **Trace evidence:** data whose mere existence is proof of the existence of part of a hypothesized mechanism. For instance, a YouTube clip of a keynote speech from certain actor at an event proves the actor's presence at the particular event
- **Pattern evidence:** statistical patterns, could include the income of a group of farmers over time
- **Sequence evidence:** the sequence of temporal and spatial events, whereby we may expect to see things happening in a particular order in case (part of) the mechanism exists



It is not always possible to already oversee at this stage what kind of evidence you need, and whether it is necessary and/or sufficient. If that is the case, evidence can be collected in a progressive way, and you will update your list of possible evidence as you continue your research. Likely, over time partners will better understand what process tracing as a methodology entails, and they will increasingly think along about useful evidence to collect.

7. COLLECT DATA TO UNDERPIN PROCESS

- Data collection in process tracing studies is very straightforward, as you know rather well what you are looking for
- Multiple pieces of evidence usually strengthen confidence in our hypothesized causal mechanism

After conducting all the preparatory work, it is now time to engage in actual data collection. Though the preparatory process might feel cumbersome, it ensures clarity on the data that needs to be collected. Some of the preliminary data collected in step 3 and 4 might serve to substantiate the hypothesized causal mechanisms. However, most likely additional data will need to be collected, to affirm or reject particular hypotheses in the causal mechanism. Again, triangulation is important in this step, as a single piece of evidence may leave open the option of alternative explanations (as described earlier), whereas multiple pieces of evidence pointing in the direction of a particular causal explanation strengthen the confidence in our hypothesized causal mechanism.



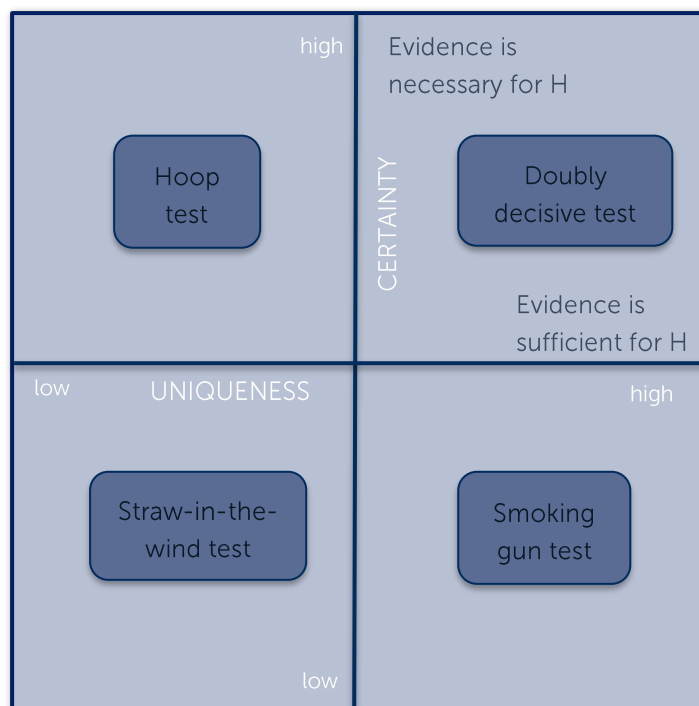
Although often process tracing is depicted as a qualitative research approach, the selection of data collection techniques depends entirely on the type of evidence needed (see also types of evidence in step 6). Any method for data collection can be relevant, which means that in process tracing methods are not defined a priori.

8. ASSESS EVIDENCE FOLLOWING BAYESIAN LOGIC

- Bayesian logic prescribes that we attempt to update our confidence in causal theories, rather than being 100% sure about our findings
- A set of four tests, based on necessity and sufficiency, are used to assess evidence: hoop test, straw-in-the-wind-test, doubly decisive test, and smoking-gun test

In this step, you weigh the data you collected, to critically assess your hypotheses. Data is assessed in a similar style as is done in a criminal trial. Each piece of evidence is weighed to put together a case that gives a reasonable degree of confidence in the existence of each part of the mechanism. To weigh the value of evidence, we make use of Bayesian logic. It is based on the idea that new evidence can be used to update our confidence in causal theories. However, it is important to mention that we can never be 100% sure about a link between activity and impact, and therefore what we do with process tracing is increasing or decreasing our confidence in a certain relationship. This is also how findings should be understood. This also means that if we have a strong prior confidence in a certain theory (in a certain specific context), very strong evidence is needed to increase our confidence, whereas - which is more often the case - if we know fairly little about a certain relationship, then even relatively weak evidence can increase our confidence in a hypothesized causal mechanism.

Figure 3. Assessing evidence with Bayesian logic



Each piece of evidence should be weighed according to the notions of necessity and uniqueness. Necessity refers to evidence that is *necessary* for the hypothesis to be true. This does not mean it is also *sufficient* to prove the existence of the hypothesized link, as there might be other conditions *necessary* in parallel to the one for the consequence to occur. A necessary condition that does not occur is a certainty that the consequence also does not occur (only if A is present, B is possible). A *sufficient* piece of evidence on the other hand is in itself enough to prove the correctness of the hypothesis (if A then B). This, however, does not mean it is the only evidence that may prove the correctness of the hypothesis, as there might be other alternative pieces of evidence that could also falsify the same hypothesis. If we find the *sufficient* empirical material this means we can be certain about the occurrence of the consequence. Punton and Welle (2015) have constructed the following useful matrix (figure 2) to assess the certainty and uniqueness of evidence, and the related four tests to assist in the process of assessing evidence. Thus, the different tests have the following functions, see table 1.

Table 1. Affirming hypotheses using Bayesian logic

		Sufficient for affirming hypothesis	
		No	Yes
Necessary for affirming hypothesis	No	1. Straw-in-the-wind	3. Smoking-Gun
		Passing: affirms relevance of hypothesis but does not confirm it.	Passing: confirms hypothesis.
		Failing: hypothesis is not eliminated but is slightly weakened.	Failing: hypothesis is not eliminated but is somewhat weakened.
		Implications for rival hypotheses: Passing slightly weakens them. Failing slightly strengthens them.	Implications for rival hypotheses: Passing substantially weakens them. Failing somewhat strengthens them.
	Yes	2. Hoop	4. Doubly Decisive
		Passing: affirms relevance of hypothesis but does not confirm it.	Passing: confirms hypothesis and eliminates others.
		Failing: eliminates hypothesis.	Failing: eliminates hypothesis.
		Implications for rival hypotheses: Passing somewhat weakens them. Failing somewhat strengthens them.	Implications for rival hypotheses: Passing eliminates them. Failing substantially strengthens them.

Source: Collier 2011



It is important to note that the assessment of evidence is an analytical and contextual - and therefore a subjective – process. Determining whether evidence serves to strengthen or weaken our confidence in hypotheses is highly dependent on the context. For instance, where in one environment the existence of meeting notes serves as both necessary and sufficient evidence to prove a meeting took place, in other instances note-taking is not self-evident, or notes are distributed although the meeting never actually happened. It is therefore essential to be clear about the sources and nature of evidence and tests, and retain transparency in the process. Furthermore, it is important to critically think and brainstorm about (the reliability of) potential evidence and what it means for our confidence in hypotheses.

9. ESTABLISHING CONFIDENCE IN THE MECHANISM

- The mechanism as a whole is only as strong as its weakest link
- Generalizing beyond the study case depends on contextual conditions identified

After applying the tests to each of the hypotheses, we can assert a degree of confidence in each hypothesis, and thereby conclude on the degree of confidence in the overall causal mechanism that links the intervention(s) with the outcome. The evidence for the mechanism as a whole is only as strong as the weakest hypothesis/link. It is therefore important to indicate where the evidence is weakest (e.g. a straw-in-the-wind test), and decide whether the mechanism as a whole can be accepted or needs to be rejected. Accepting means there is sufficient evidence for the researcher to be confident that intervention A led to outcome B through the hypothesized causal mechanism. If the mechanism is not accepted, this means that there is insufficient evidence to demonstrate A and B are linked through the hypothesized causal mechanism. This however does not mean that intervention A did not result in outcome B, it could also be that A and B are linked through a different causal mechanism. Here the testing of alternative explanations may come in useful, as this could inspire the drawing of an alternative causal mechanism that could be accepted.

As such, the process tracing exercise teaches us about the how and why of a particular intervention. In addition, it might enable for generalizations to other cases, depending on the level of abstraction of the hypotheses. This also depends on what has been identified as contextual conditions. The detail as provided through process tracing enables partners to draw lessons from a certain intervention to use in other situations and partnerships elsewhere. However, accepted hypotheses and mechanisms for one case cannot simply and uncritically be exported to other situations. Instead, different contextual conditions need to be carefully compared, and generalizations can only be drawn to comparable contexts. This might also involve further testing.



It is often the case, especially in complex interventions, that multiple causes have co-contributed to the outcome of interest. These causes may not be mutually exclusive. Often, finding a causal mechanism linking partnership interventions to an outcome of interest therefore does not mean that it has solely been the partnership that has realized an outcome. The partnership's intervention might have been one among many factors contributing to an outcome. Rather, we can conclude on the basis of the research that the partnership under study contributed to the outcome, but we cannot rule out other explanations and factors that might have also influenced the process.

CONCLUSION

This guide has attempted to demonstrate how process tracing can be used for impact evaluations. We believe process tracing has potential to expand the toolbox for studying impact in international development. And although process tracing is gaining ground in the field of development evaluations and the field of partnerships, there is still limited practical information to guide researchers and evaluators in embracing a process tracing approach. Through collecting the most important suggestions and tips in this guidebook, we hope to support the exploration of important questions and answers around the contribution of partnerships to development impact and how and why change happens. We hope that this practical guidebook supports the integration of process tracing in studying partnerships' contribution to development.

If you have any questions or suggestions, please do not hesitate to contact us: faling@rsm.nl.

REFERENCES AND FURTHER READING

- Befani, B. & Stedman-Bryce, G. (2016). Process tracing and Bayesian updating for impact evaluation. *Evaluation* 23(1), 42-60. <https://doi.org/10.1177/1356389016654584>
- Blamey, A. & Mackenzie, M. (2007). Theories of change and realistic evaluation: peas in a pod or apples and oranges? *Evaluation* 13(4), 439-455. <https://doi.org/10.1177/1356389007082129>
- Brinkerhoff, J.M. (2002). Assessing and improving partnership relationships and outcomes: a proposed framework. *Evaluation and Program Planning* 25(3), 215-231. [https://doi.org/10.1016/S0149-7189\(02\)00017-4](https://doi.org/10.1016/S0149-7189(02)00017-4)
- Collier, D (2011). Understanding Process Tracing. *Political Science and Politics* 44(4): 823–30.
- Punton, M. & Welle, K. (2015). Straws-in-the-wind, Hoops and Smoking Guns: What Can Process Tracing Offer to Impact Evaluation? Practice Paper 10. Brighton: Centre for Development Impact.
- Schmitt, J. & Beach, D. (2015). The contribution of process tracing to theory-based evaluations of complex aid instruments. *Evaluation* 21(4), 429-447. <https://doi.org/10.1177/1356389015607739>
- Ton, G. Vellema, S. & de Wildt, M.R. (2011). Development impacts of value chain interventions: how to collect credible evidence and draw valid conclusions in impact evaluations? *Journal on Chain and Network Science* 11(1), 69-84.
- Van Tulder, R., Seitanidi, M.M., Crane, A. & Brammer, S. (2016). Enhancing the impact of cross-sector partnerships: four impact loops for channeling partnership studies. *Journal of Business Ethics* 135, 1-17. DOI 10.1007/s10551-015-2756-4.
- Vogel, I. (2012). Review of the use of 'Theory of Change' in international development. Review Report. UK Department of International Development. https://www.researchgate.net/publication/259999430_Review_of_the_Use_of_'Theory_of_Change'_in_International_Development/link/5d15cf7492851cf4405191c8/download
- Wadson, A., Monzani, B. & Aston, T. (2020). Process Tracing as a Practical Evaluation Method: Comparative Learning from Six Evaluations. https://mande.co.uk/wp-content/uploads/2020/03/Process-Tracing-as-a-Practical-Evaluation-Method_23March-Final-1.pdf