Questions and Answers
An ethnography of evaluation in Afghanistan
Holtrop, T.J.

Link to publication

Creative Commons License (see https://creativecommons.org/use-remix/cc-licenses):
Other

Citation for published version (APA):

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: https://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
6

CONCLUSION

COMING TOWARDS THE END OF THIS PHD EXERCISE THERE ARE SOME ANSWERS and some further questions. Consider these snippets from the conclusion to the evaluation report of the Dutch mission in Uruzgan:

At the end of their four year engagement, the Dutch military can leave knowing that during their mission advances in both security and development were made in Uruzgan … This can be attributed, amongst other things, to the Dutch bottom-up development strategy that engages community leaders … The Uruzgan government is not yet capable of taking over the domains of security and development … issues of transferability of Dutch achievements, both to the Afghan government as well as to other International Military Actors. As a provincial resident noted, “If people do not have the support of foreigners then nothing in terms of security can be achieved. … The overall success and sustainability of the Dutch advances over the past four years thus depends heavily on how well (if at all) their successors build upon it … The carefully established balance of power between different tribal leaders and power brokers that had a stabilising impact on Tirin Kot, Deh Rawud and Chora districts, are at risk of unravelling.

What can we make of these measured statements after having read four articles about the practicalities of asking questions, analyzing data, writing reports and presenting conclusions? What transpires between well-meaning and knowledgeable evaluation practitioners, their methodological protocols, and the intricacies of everyday Afghanistan?
This collection of articles has offered a particular approach to these questions. It has tried to situate the knowledge in and about this evaluation project and to track the ways evaluation data result from particular arrangements of things, people and their relations. Another way of putting this is that while evaluations are of Afghanistan, they are also in Afghanistan. With the proposition in I mean to point to a situatedness: evaluation data take shape within a particular time and place. This may happen in The Hague, Uruzgan, Kabul, Washington or wherever and whenever Afghanistan as a subject of evaluation comes to matter. I call these moments “evaluation situations.” This is a loose concept with which I draw attention to the specificities of the place and moment of the evaluation practice, as well as to the specificities of the different kinds of actors – fleshy and technical – and their desires, capacities, expectations and skills that meet there and then. A situation, then, is not overdetermined by any of its elements. It can instead be understood as a platform for the meeting of a collection of heterogeneous participants.

As an analytical device the evaluation situation accompanies an understanding of evaluation practices in terms of logics. A logic evokes a certain coherence and fitting together of elements, even if it is a very local and fragile way of hanging together. A situation, on the contrary, calls up the coming together of a collection of participants which may always fail or disrupt any pre-formatting of issues or actors. So, while logics tend towards articulating the rationale of coherence, the situation lists heterogeneous participants and their potential for disruption.

In what comes next I will first list four elements of the evaluation situations that I have addressed in the thesis: research technologies, evaluation’s elaborations, context, and researcher. In order to do so I borrow an aesthetic device from evaluation report writing: the list. Lists enable a collection of elements that are important but they do not connect them in a single explanatory narrative, as I argued in the article on writing reports. I want to argue something similar for the elements of the evaluation situation. Each element is important but the elements do not add up to a complete grasp of what happens in evaluation situations. On the contrary, this list can be expanded upon and this calls for further questions, engagement, and analysis.

Lists have a particular aesthetic and style, which I loosely adopt in the following. Each entry presents one of the elements of the evaluation situation, or what evaluation writing would refer to as a key actor. In order to separate the different entries, I use numbers, white lines, and words in bold. Moreover, the narrative may not flow so smoothly as we expect from anthropological writing, but appear more as a summing up. Having listed the elements of evaluation situations and sketched out how they play out in the empirical material that comprises the four articles I turn to the three bodies of literature discussed in the introduction. Considering evaluation situations in relation to these three literatures allows me to highlight
what thinking through evaluation situations can bring to work on Afghanistan, on development theory and on accountability.

The 1st element of the evaluation situation are its research technologies. Each of the four unfolds around one technology – numbering practices, writing, meetings and asking questions – as a configuration of practices and objectives with particular possibilities and limitations. There are many more technologies I could have chosen. I could have investigated the security protocols, the growing class of educated Afghan young men employed in the NGO industry of Afghanistan, or the expat scene in Kabul. Each of these can be regarded as a configuration of practices with effects on the evaluation situation. In this thesis, however, I focused on seemingly unremarkable, mundane and even boring entities within the research protocol that supposedly facilitate a truthful representation of the field. The rationale of this protocol is that questions collect data from the field, numbers reveal trends in these data, writing gathers claims in a comprehensive report and meetings offer possibilities to present these claims to different audiences. In this rationale questions, numbers, writing and meetings are considered to passively and neutrally facilitate the communication of a reality that is to be found in the field.

My research has shown otherwise. Questions, numbers, writing and meetings are active participants in the enactments of worlds. This is important because they generate particular kinds of knowledge of Uruzgan and preclude other kinds of knowing. What does this look like? As I showed in the article on questions there is a difference in the way questions in questionnaires, questions in interviews, and questions of critique frame the world. As we saw, questionnaires turned transportation into an act of carrying an quantifiable items from A to B. Questionnaires captured transportation in terms of quantities, speed, distance, profit or number of interruptions. Interviews, on the other hand, yielded an understanding of transportation and people’s worlds as mutually constitutive that emerged slowly and not always coherently. It took time to understand how transportation enabled business, which in turn required an understanding of different relations in Uruzgan, such as those centered around money, profit or trade.

The questionnaire had to deal with a research setting that was only accessible to surveyors that were not considered to be good researchers. This structural condition necessitated the questionnaire to become a bulletproof tool to instruct drone-like surveyors and faceless respondents. The interview by contrast required careful attuning to transportation relations, which called for mobility on the part of the researcher and informants. It required me and those I worked with to move with the object of study, not just physically, but also conceptually and analytically.
The way questionnaires and interviews came together in a relation of critique further influenced which knowledge was worthwhile to communicate to others. I, for example, had no faith in the value of data collected through questionnaires. I found it too staccato and standardized compared to the richness and liveliness of the stories I had collected in my interviews. My supervisor, on the other hand, saw no use for my complex and nuanced stories. She had to provide the donor with clear and quantified impressions. Questions, therefore, do not just facilitate a filling of an epistemic gap. Neither the epistemic framework nor the gap is a given. Both take shape in the process of asking questions.

Numbering practices, by which I mean the processes and technologies involved in knowing through numbers, subsequently insert their particularities into the production of evaluation knowledge as well. What do we know with numbers? Numbers can tell us numerous things. They can tell us about the existence of categories in the world such as girls or schools, about the practices of counting these facts or that these facts are calculable in the first place. In excel sheets numbers evoke the nitty-gritty of the practice of data collection. They can question their own accuracy or the commitment of the numbering practitioner. Lots of zeros in an excel sheet, for example, made one wonder whether the numbering practitioners had done their work well or whether we analysts had to adjust our expectations of Afghanistan.

Numbering, moreover, makes contexts possible. Numbers can switch, for example, from indicating a whole of school-aged girls in Uruzgan to this number becoming a part of another whole of school-aged girls in Afghanistan. From a reality of counting girls in Uruzgan, they have all of a sudden become parts of society, along with the pressure to perform like good citizens. In the executive summary of an evaluation report a percentage like the one investigates in the first chapter can evoke an injustice and an urgency and invite action to do better. As numbers evoke worlds, raise questions, exude confidence or inspire action in the future, they are not passive transmitters of field realities. On the contrary. They enable particular knowledge of Uruzgan while precluding other kinds of knowing.

Writing, thirdly, also shapes realities in its own ways, and I already mentioned this in the beginning of this conclusion. Remember my initial aversion towards the bullet points, lists, tables, white lines and keywords. They made writing seem like a sloppy affair to me: no carefully elaborated sentences and paragraphs that metabolized fragments of knowledge into a more general statement, as I had grown used to in anthropological writing. Instead, evaluation writing consisted of lists that initially seemed like disjointed trains of thought. It took me some time to realize that this aesthetic provoked a sense of fulfillment in my colleagues. Moreover, I came to realize that it offered its own possibilities of representation: the aesthetic of collection brought
together issues that mattered but their organization in list form did not fix the issues within the plot of an explanatory narrative.

Lastly, meetings and presentations spun success and failure in, yet again, their own ways. Whereas it might have been assumed that with the writing of the report the conclusion of the evaluation research was set in stone and could be handed over to interested individuals in The Hague, the way these encounters themselves took place mattered to how the Dutch mission’s successes and failures were framed. For example, a meeting about ongoing development proceeded through an exploration of possible scenarios for developmental success and failure. The meeting’s practice of exploration ended up being replicated in the way success was framed as dependent on a careful exploration of the setting of the mission. Another example is the press conference organized to fulfill the requirement of accountability. While the meeting itself was well-prepared and carefully controlled, the mission’s success and failure themselves were framed as an effect of control and anticipation.

The 2nd element of the evaluation situation that my research brought out is the constant work required to stabilize the object of evaluation and its representability. What does this mean? Questions, numbers, writing and meetings bring knowledge into being which is often not stable, reliable or uncontested. Because of the constant danger of the data being put into question, the evaluations require continuous laboring and elaborating in order to maintain “Uruzgan” as a stable, self-evident or finalized object of evaluation.

Numbering practices demonstrate the work that is needed to translate an impression or an expectation of reality into the language of accuracy and objectivity. As I showed in the article on numbers, numbering required minute interventions to establish referents in the field. These educational categories gained reality because of their numerical sign. Further labor transformed numbers referring to girl students into numbers referring to groups of girls. With more work these were turned into parts of populations which, in the end, featured in a narrative of development. The work that was needed to make the referent – girls going to school – real and relevant involved a great deal of careful balancing and calibrating. Technological requirements, donors’ demands, representational techniques, expectations of reality, numerical possibilities and inevitable but always unexpected interruptions in the flow of work had to be managed to keep the number out of chaos and bring it into meaning.

After we had calculated the percentage 6.15% indicating the school-aged girls that were going to school in Afghanistan, my colleagues and I were not finished. All the work that went into the number — and later on, all the work that went into including it into a more comprehensive report
with a lot more data — made it transportable and relatable. While we could make the number — and the report for that matter — travel to new places and people, we could not secure the number’s reception. Remember the issue with the report’s authorship. While the analysis of the data and the writing of the report depended on contributions from many different people and technologies, these contributors could not be acknowledged. Authorship was defined by a very specific ethics and politics, and in order to pass as an author, knowledge of and adherence to these rules had to be made explicit in the report. The work we did around authorship equipped the data with a set of new capacities. It was now possible to accept data as the outcome of sound research. However, precisely this scaffolding of the data as good data could also inspire doubt about its coming into being. There was, therefore, always the risk that upon publication the data — and the report — would still not be accepted as reasonable claims to reality. Instead, there was a continuous necessity for further scaffolding.

Further elaborations of the evaluation data happened for example in the meetings organized around the presentation of the report that evaluated the Dutch mission in Uruzgan. The press conference was organized in such a way that the report and the numbers in it would pass as tokens of accountability. However, due to domestic political circumstances there weren’t many journalists to broadcast the story. On the one hand this allowed for the report to pass the accountability test. On the other hand, the evaluation data would now not travel very far. The report did, however, inform other meetings about ongoing development in Uruzgan or lobby meetings about future projects. In these meetings the results of the evaluation changed shape, now available against different horizons, technologies and issues that were at stake in these meetings. Hence, Uruzgan as the ultimate object of this evaluation study never stabilized. It was continuously captured in representational events, but one could never be sure it wouldn’t manifest itself differently later on or somewhere else.

The 3rd element of the evaluation situation are the *contexts* that it depends on and, in turn, builds. How does this work? In the example of the transportation research, the questions and answers did not only assemble transportation as an object of inquiry. The research also fortified a whole world in which this object made sense. This was the world of the international intervention, concerned with trade, crime, communications and power in Afghanistan. If the Australian mission that had commissioned this project, wanted to know for example how transportation was organized in Uruzgan, it wanted to know this in order to better focus their intervention. As a result transportation became known in terms of the international intervention seeking to reduce insecurity and increase development. Knowing transportation had additional performative effects. The process of knowing transportation also established who knew, in what format,
for what purpose, when and where. This may be called the context of knowledge production.

The infrastructures needed to make and transport knowledge notoriously break down in Afghanistan. In the process of data collection, analysis or report writing there were many moments of disconnection which required constant reconnection efforts. Hardware or software needed fixing, connections between people in different locations and time zones needed constant monitoring, or misunderstandings between people speaking different languages or lingos called for explanations. There were also more complex disconnections. A case in point was the fact that the regions of Uruzgan that were most interesting for the donors were not accessible for those who had most research experience. This meant that the research had to be done by Uruzganis who, in turn, did not have the experience or skills. A carefully designed questionnaire was supposed to solve both the problem of access and the difference in levels of research skills. These questionnaires as a result yielded a host of research data from places that were difficult to access. In their wake, however, they also established and maintained contexts in which differences between international and local researchers made sense and differences between good and bad research were defined.

Contexts do not necessarily transform into a backdrop against which events take place, like Afghan mountains that loomed in the distance wherever I looked. Sometimes there were surprises — moments in which something obnoxious or interesting forced itself on the researcher and questioned her commonsense. This happened during the transportation research which I discussed in the fourth article. During this transportation research poppy trade had always been on the horizon. It has been just out of focus, inhabiting the space between indifference and attention. Until it jumped on me, and I was forced to acknowledge its presence which led me to completely rearrange the way I understood transportation in Uruzgan.

And then there were contexts that were not mine, in my capacity of being an expat international researcher. International news outlets reported on a daily basis about bomb attacks killing dozens, Afghanistan’s billion dollar drug war, widespread destruction from an earthquake or US’s downplaying of civilian drone victims. Expat life in Kabul was explosive, but mainly at the parties where we danced like there was no tomorrow. As a researcher I was mostly safe, and almost predictably so. Contexts were clearly not the same for everyone, and neither were the possibilities for building them evenly distributed.

These contexts do not all fit together, nor do they all stay the same. Rather than trying to incorporate everything in one master explanation, we may borrow from evaluation’s aesthetic of collection. Bullet points may break up coherence and flow. It is exactly that capacity to invite a context of non-coherence that evaluation’s aesthetic of collection may offer here.
The 4th element of the evaluation situation I will discuss is the researcher. She participates as a PhD student and as an evaluator in the evaluation process. As we have seen in the context of the problem of authorship, evaluators are not taken to be the authors of their texts in a creative sense. They are understood as merely collecting and transmitting the data of the field. But also fields like anthropology and STS for whom epistemic limitations of authorship are issues worth reflecting on, writing conventions and codes tend to hide the creative work of composing and naturalize the objects of the account.

What about the researcher? Just like questions or numbers are research technologies within the evaluation situation, she is too. Rather than playing her part in a research protocol that guarantees the truthfulness of the data, she, too, is an active participant in the making of knowledge. She has capacities, skills, limitations and blind spots. In the present text, she is a woman, an anthropologist, a PhD student, Dutch, excitable, inexperienced as an evaluator, unfamiliar with Afghanistan. These characteristics make for particular mobility, styles of engagement, hang ups, attractions, oversights and misunderstandings. Her configuration makes certain versions of Afghanistan possible, and others unlikely.

She contributes to the making of evaluation data in specific ways. However, maintaining and cultivating her/self as a felicitous part of evaluation endeavor requires a lot of work. Like numbers, questionnaires or meetings she needs attention and care to be able to do her job. She needs to dress properly, observe security protocols, eat well, sleep well, make some friends and enjoy herself. Of more immediate concern to her job is her lack of experience in evaluation work or Afghanistan. This shortcoming requires training and the work she delivers needs monitoring for whether it fits the standards. For some time, the work invested in her seems to pay off. She seems to become a reliable fixture in the team, well-connected to her colleagues and delivering good work. But then, this promise is thrown into question when she fails to make good and timely questionnaires in transportation research, and more generally be a good team player and a reliable employee. The elaborate work is lost on her. It is best to dismiss her.

She fails not only as an evaluator, but also as an anthropologist doing her PhD research in and on evaluation practices. Getting too involved in her job compromises the tenets of the classic anthropological method – participatory observation – which holds that participation should enable observation by maintaining a certain detachment from the object of study. She does not succeed at making the contexts of evaluation and anthropology work for each other. Moving away, however, opened up new avenues. Within an academic context, and with some distance from the evaluation work, critique and its desire to know the other only as a flawed extension of oneself, turns out to have been
QUESTIONS & ANSWERS

a meager model for relating across difference. Asking again, and again, has allowed for a more generative understanding of the co-existence of evaluation and anthropology, as two styles of research.

The evaluation situation offered a collection of elements that are each informative about what, who and how we know Afghanistan. Each of these elements offer opportunities to assess evaluations critically but also to carefully consider the worlds that emerge alongside evaluation situations and the ways that processes of governance work with and through them. Moreover, research technologies, evaluation’s elaborations, contexts and researchers may offer entry points to actively disrupt forms of life that solidify around them.

The present elements offer some analytical direction, yet they are not fixed in a pre-established plot or a grand narrative. As a form, lists may invite to collect, and to collect requires to look, think, engage, move, and ask again. Engaging again the bodies of literature that I discussed in the introduction – on Afghanistan, on development, on development anthropology and on accountability – the lens of the evaluation situation brings out three contributions of this thesis. First, working empirically through different evaluation situations and the worlds they engender allows us to consider how different ways of knowing Afghanistan make different kinds of Afghanistan possible. Second, evaluation situations have highlighted that knowing and doing Afghanistan are tightly intertwined which advocates for a symmetrical treatment of any project that tries to learn and work in a complex environment, such as evaluation research versus anthropological research. Third, evaluation situations show that accountability is an illusive affair, which begs the question whether how we know accountability as researchers may matter for how we situate it. I will detail these claims below.

As I laid out in the introduction, studies of Afghanistan often follow one representational model. Many studies speak of the place, the conflict, the women, the Taliban and the future as if they were all places and problems that are part of one reality “out there.” There may not be consensus about the right depiction of Afghanistan, the accurate use of data or the correct analytical framework. The descriptions, however, generally follow the same representational ideal: there is “one world” that is referred to, available for description while at the same time separate from the descriptive tools, methodologies and interests.

Investigating what lies between the evaluation’s question and its answer has revealed that trying to get to know Afghanistan is a practical challenge. It is not that other authors do not acknowledge the practical challenges that are involved in their quests to understand Afghanistan. People have resorted to dressing as women, as goat herders or have taken dangers trips across the country
to find answers to their questions. Oftentimes the mastery that is required to overcome the challenges, dangers and risks involved in knowing Afghanistan serve as a narrative motor in accounts of Afghanistan or serve to legitimize the knowledge produced. Acknowledgments of these challenges make Afghanistan more real, more dangerous, more exotic, more special, and more important.

In other words, the way we identify problems of access, organize research, its protocol, our expectations, its value, its use, and its reception matters for how we know Afghanistan: as a place that nowadays alternates the last position with Syria in peace indices; as a place that is tenaciously complex; as a place that the international intervention has unsuccessfully tried so hard to push up the ladder of development; as a people that is incapacitated by decades of war to transform this good will and investment into peace; as a place that needs the international community, if only to help Afghans know themselves.

Discussing some elements of the evaluation situation gives reason to shake any illusion of self-evidence: not just of the numbers and reports, but also of the questions that inform evaluation research in the first place, developmental knowledge of Afghanistan and the actions it inspires. Picking apart the evaluation situation offers an occasion to see and assess how Afghanistan and its contexts become outlined in practice. It allows us to see how these outlines interface the way Afghanistan is known with the concerns of international development or the international intervention. Moreover, the evaluation situation offers tools to ask again and consider how else, in addition, it might be possible to know Afghanistan.

In the introduction I discussed a series of authors who have diagnosed the relation between the fields of Anthropology of Development and Development Anthropology as in a deadlock. These authors have tried to find a way out of this impasse not through an investigation of the big ambitions of development, but by studying the practical efforts through which development takes shape. This thesis has joined these authors with a study of one particular environment in which this happens: evaluation research on Uruzgan. Studying evaluation research ethnographically substantiates a claim that development’s ambitions and perspectives are tightly intertwined with the way these ambitions and perspectives are done in development’s knowledge practices.

If this is the case, it changes conventional ways of thinking about knowing and doing development and expectations of where knowing and doing development happen. Knowledge of development now needs to take into consideration the practices through which this knowledge takes shape. How development is known makes possible what is understood as development. Just think of the difference between transportation knowledge gained through questionnaires and through interviews, as staccato but transportable on the one hand, and rich but difficult to relate to other
concerns. Conversely, knowledge practices in development settings are themselves sites of development practices. For example, writing the report helped to shape the way development in Afghanistan was understood. At the same time, as failing infrastructures constantly had to be fixed and connections re-established, writing was itself an example of development in Afghanistan.

This recursive relationship – where knowledge implies practice and vice versa – does not sit well with a model of critique that casts development practice as a deficient version of the anthropology of development. According to that model an evaluation report is considered bad anthropology and concerned with practical effects alone. A model that tries to consider both development practice and anthropological theory symmetrically, as endeavors that try to learn, understand and work in a complex environment may allow for more generative questions to be asked of either style of research. If, for example, anthropologists finds development practitioners to be lacking in theoretical sophistication, development practitioners may ask anthropologists what the practical effects of her theorizing are.

Equipped with the insights, models and pointers put forth by the literature on accountability I started a hunt for accountability in the revisiting of my material. As the evaluation research was conducted to enable the Dutch mission to account for its efforts I expected to find accountability in practice at every turn. What did I find?

I found an impressive organization of data collection, analysis and presentation that was required to account for Afghanistan. I described what was entailed in the collection of information about Afghanistan; establishing Afghanistan as a referent; knowing it in comparison to other places; representing it in writing; and presenting it as evocative of different narratives of success and failure. Each step of the way required a careful balancing of format, scientific accuracy and intended audience, while at the same time negotiating a host of interruptions such as infrastructural disconnection, expectations of Afghanistan and professional ambitions. Initially I thought accountability was this continuous balancing act. This turned every evaluation situation into an accountability situation: it permeated every step of the way.

Speaking to a journalist about my work recently allowed me to engage anew with the question of where accountability is. The journalist dutifully listened to my detailed stories about the intricacies of evaluation practices but was interested really in only one issue: whether or not the Dutch government had influenced the evaluation results. It was a belated question. While the whole operation had been conducted under the sign of accountability, there was only one moment in which, practically speaking, the Dutch government had had to justify their actions towards the Dutch public: the press conference. And while this journalist was now, end of 2016, interested in the coming
into being of this report, in 2010 the media had been more interested in Dutch domestic politics than the evaluation results. Hence, at the time the issue of accountability fizzled away.

In both cases accountability is illusive. In the first case accountability is everywhere but precisely because it is everywhere, it is hard to pin down and nowhere really. In the second case, the whole complex operation was funneled into one grand moment of accountability that, when it actually took place, was largely ignored.

If we pull out the adage of this thesis – how we know matters for what we know – accountability may well be the analytical blind spot of all my hard work. Is it possible, for example, that a methodology that follows and documents practices of accountability can only account for accountability in a technical sense? The science studies research style that I used here, turns the question whether the Netherlands accounted for their mission in Uruzgan on the basis of the evaluation report into an empirical one. That means that I investigated a case of how accountability can only work if it is distributed over an extended network of practices and their actors. Does the political and ethical dimension of public justification then not disappear within the technicalities of practice?

Conversely, does a methodology like that of following journalistic scoops account for accountability to the right audience? If journalism pursues an account of the Dutch mission in Uruzgan as an issue between Dutch politics and its constituency, who will care to ask what people from Uruzgan think?

These questions are posed in the spirit of generative critique, they make room for something new to happen. When reading the snippets from the conclusion to the evaluation report once more, it is possible to not so much wonder about the accuracy of the representation of Uruzgan anymore. The report invites to ask again, in a generative and generous way. If we no longer assume that there is one world that can be captured and transmitted as one, we can ask other things, such as: who have been in and excluded in the collection of data? How does the report allow us to know Afghanistan? What ignorance does it generate, what kind of knowledge is precluded? What kinds of contexts does it contribute to? What kind of action and engagement does it compel? Or what passive despair, perhaps? These questions and their answers offer possibilities for imagining different kinds of evaluation research. What this may look like in practice is a topic of further research.