Constructive Scaffolding or a Procrustean Bed? Exploring the Influence of a Facilitated, Structured Group Process in a Climate Action Group

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Abstract In this paper we present a case of a structured, facilitated group process with a climate action group engaged in a local Transition initiative. We explore how the interacting contexts between action researchers and the group acted as a constraint for the trajectory of the group process, by looking at the mismatches between the group's and the researchers' purposes and differences in expectations about methods of engagement. A methodological framework was used for evaluating the outcomes. The primary aim of this article was to investigate and point out dynamics that may be a hindrance to the effectiveness of a facilitated local climate initiative, with the view to inform facilitation practices and improve future action research processes.

Keywords Action research · Adult development theory · Climate action · Complexity · Evaluation framework · Facilitation · Participatory processes · Public engagement · Scaffolding · Transition movement

Introduction

The context of this article is the intersection of climate action, effective public engagement and the challenges facilitators and action researchers may face. The complexity of climate change issues demands co-ordination of actions across sectors in society that are traditionally separated (Rommetsveit et al. 2010). The host of climate issues summons a breadth of concerned individuals and groups of actors to form grass root climate action groups, such as the Transition Movement (Hopkins 2008, 2011). People who engage in climate action groups

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constellate a wide spectrum of actors where members reflect interests beyond those traditionally identified as environmental, such as: local and global social justice, food security, indigenous rights, habitat protection, democracy, land use, and a variety of political and economic ideologies. While the climate action movement is bound together by wide themes and concerns regarding the common good, its members do not always share the same visions of what would constitute effective change, or how to bring it about (Hawken 2007; Riedy 2011). While pointing out dilemmas inherent to the bottom-up and diverse movement, Hawken (2007) emphasizes commonalities, such as the shared fundamental understanding of climatic conditions and the willingness to step up and act. Nevertheless, such a broad spectrum of perspectives and values imply many challenges for taking collective action, and makes it necessary to find ways to navigate a plurality of visions (Riedy 2011).

The authors of this paper would argue that the ability to collectively analyze complex issues, reflect on and communicate one's ideas, understand and be concerned about the perspective of others, as well as reach mutual agreements on comprehensive actions, are all skills necessary for people to engage effectively with each other to resolve any public issue (Rosenberg 2002, 2007; Ross 2009; Inglis 2011). With the scale and scope of the concerns being so diverse yet interconnected, and with various issues already rising to crisis proportions, grass root groups are very challenged in finding satisfactory paths forward. This presents facilitators of participatory processes with the challenge of practically engaging with participants' diversity of values and multiple perspectives, whilst identifying individual as well as collective blind spots in current approaches (Inglis 2009; O'Brien 2012). Tschakert and Dietrich (2010) suggest that learning tools, such as iterative learning processes like action research and action learning, are much needed; yet poorly studied in terms of the complexity and uncertainty of climate change.

As action researchers and practitioners, with a background in participatory processes, integrated with the application of adult development theory to social issues (see Fein and Jordan 2016), we are concerned with facilitation of public interactions, and how to provide useful developmental scaffolding. By scaffolding we mean different forms of supportive structures and processes, such as a structured method and competent facilitation, to support a group to, for example, construct a solution to a complex problem or develop action strategies for attaining collective goals (Andersson 2015; Jordan 2014). By developmental scaffolding we mean offering this support in a progressive sequence, so as to make possible the emergence of increasingly complex and well-considered responses.

From over a decade of studying and facilitating participatory processes designed to address societal complex issues, our experience has been that, often, participants want to jump to a single "solution" before there is agreement on the "problem", its complexity, the diverse actors involved, or what are the interconnected root causes. Many such public interactions thus result in simple reporting about events, absolutist assertions of opinions, or short term "fix it" strategies; none of which allow complex multi-layered and multi-perspective responses to be developed. Without systemic analysis, band-aid type solutions are often chosen and unintended consequences of these may arise. The value of systemically addressing issue complexity lies not only in the possibility of developing truly comprehensive action plans, but also in the potential of increased engagement, a sense of ownership of issues, as well as hope and empowerment in working together (Andersson 2009, 2016; Ross 2007). We have found that communication among diverse stakeholders with different mindsets presents a dynamic of central importance. These differences, when adequately facilitated, can potentially evolve the capacity of a group to arrive at more comprehensive action plans; but if inadequately addressed, they can create ineffective and divisive responses.

In the case study presented in this paper, the action researchers and participants noted both frustrations in the attempts at collaboration as well as respect for the diversity of voices and capacities. Still, what initially and on the surface looked like it would be a smooth and fruitful process - based on a seemingly very good fit between a group's need to develop a strategy, researchers' wish to engage with the group, and a particular method's focus on developing responses to complex problems, turned out to be a comparatively rough ride for all involved. By elucidating these dynamics we add some empirical substantiation to previous theorists' and practitioners' reflections, and further elaboration on the influence and dynamics of external researcher facilitation. The primary aim of this study is thus to harvest learning from the experience of a particular facilitated process, by pointing out and investigating the dynamics arising from differences between group members and action researchers, as regards their respective understanding of their contexts, purposes, ways of working and ideas of desirable outcomes of the process. Through this investigation, we aim to elucidate dynamics that that may be a hindrance to the effectiveness of facilitated citizen initiatives dealing with complex issues, with the view to improve future action research practices in similar settings.

The action research purpose of this paper was met through shared analysis of the empirical data and reflection on previous facilitation practices. To organize the study, we have applied a portion of a methodological framework (Midgley et al. 2013) that serves to elicit the interconnectedness between *contexts*, *purposes*, *process* and *outcomes* in group interventions. Midgley's et al. framework was developed to enable evaluation of methods from multiple perspectives, and to differentiate views and outcomes for the participants and the researcher respectively, as well as important boundaries between them.

The paper begins by locating the participative process used in this study, followed by addressing important action research predicaments. We then present the case of a Transition initiative in Sweden, in which conflicts calling to mind the metaphor of a "Procrustean bed"¹ emerged. The interconnected issues that unraveled express a divergence between action researchers and participants concerning both methods and purposes: as researchers, our perspective has been that issues of complexity need to be unpacked and analyzed with precision, structure and scrutiny, and we believed that our method offered an opportunity to do just that, with the support of a facilitator maintaining a particular focus and structure. However, the climate actors' group cultures tended to embrace emergent, non-hierarchical leadership styles and modes of collective action. Many of the group participants also had highly elaborated, yet rather "congealed" views on what ought to be done, and some were less inclined to inquire into ways of making collaborative priorities; feeling that important perspectives were being left out (Jordan et al. 2013). Using a structured process was to some group members counter-productive to the aims that they had hoped to accomplish. Conversely, we the action researchers were unable to adapt enough to create a focused process in which the emergent nature of the group's culture could fully prosper.

¹ The metaphor of a 'Procrustean bed' derives from the Greek legend, in which Procrustes invited passing strangers to stay with him. Procrustes ensured that everybody would fit his bed, but to do that Procrustes stretched the person if too short, or chopped limbs off, if too tall. The metaphor is used here because a participant expressed that she experienced the group process as a Procrustean bed.

Participative Methods, Facilitation and Action Research

Participative methods for addressing challenging social issues have in recent years been growing in number, along with studies unveiling the need for them and their usefulness (see for example Bunker and Alban 2006; Holman et al. 2007; Rosenhead and Mingers 2011; Rowe and Frewer 2000; van der Zouwen, 2011). There are several strong arguments for testing and learning from process designs that enable groups to understand the complexities of the issues in which they are engaged (Inglis 2011). In general, complex issues require complex responses. From our view, it is important that processes be designed to scaffold interactions that are more likely to match the complexity of the issues and that allow participants to bring their best selves forward in order to address these issues (Inglis 2007, 2008; Jordan 2014; Ross 2009).

Although it is a field that is getting increasing attention, facilitation methods and designs needs further understanding and transferability (Kolfsohnten et al. 2007; Witte 2007). In any local intervention, contextual factors, the facilitative skills brought in by the researchers-facilitators, as well as the purposes and expectations of the stakeholders, will conjointly contribute to the success or the failure of the endeavor (Midgley et al. 2013). In order to make a just evaluation, these interrelated factors need to be understood. For example: a methodology may assume cultural norms about participation, which are a misfit to the people involved in the intervention (Midgley et al. 2007). Methods originate out of different contextual needs and influences, and, in effect, make different practical priorities. Some may actively favor a process design that fosters creativity and emergence, such as Open Space Technology and Dynamic Facilitation (see Holman 2010; Zubizarreta 2014), whereas others focus on systems understanding and problem structuring, such as Soft Systems Methodology (Checkland and Scholes 1990) or Problem Structuring Methods (Rosenhead and Mingers 2001). Funnell and Rogers (2011) use the concept of ‘program theory’, which implies the theory or model of how an intervention leads to specific outcomes. A program theory is made up of a theory of change and a theory of action, where the first focuses the assumptions about causal mechanisms that might lead to the desired outcomes, and the latter explains how a model is constructed to activate change. These distinctions set important boundaries for evaluations. Within systems science, one measure for understanding participative models is whether they are founded in isolationist or pluralist methodologies; where the former favors using methods from its own toolbox, the latter adopts methods from different methodologies (Jackson 1987; Midgley 1992).

The Integral Process for Complex Issues

The structured process that was used in this case is called The Integral Process for Complex Issues (TIP; for a detailed description, see Ross 2006). TIP emerged in an American public participatory and deliberative context, with the view to foster political development, in particular in the subfield of deliberative forums. Ross contributed extensive work in designing this developmental approach to complex public issues, which is based on a framework of deliberative democracy, integral theory, human development, transformation theory, timely action inquiry and consciousness studies (Ross 2007). A central principle of the TIP framework is to provide a progressive sequence of steps designed to support the development of more complex capacities for dealing with public issues based on hierarchically arranged assumptions of complexity (Commons et al. 2005.) These steps include unpacking participants’ issues of concern and selecting ongoing priorities of focus; iterating from broader topics to more focused issues and then broadening again to unpack ‘issue-complexes’ (see Fig. 1). In this, TIP functions as a modular, non-linear and iterative process.

Fig. 1 The TIP-steps used in the transition initiative. For a description of each step, see Ross 2006

TIP has so far been tested in USA, Sweden, England and Canada and within both the public field and in multi-stakeholder organizational settings, showing success in supporting the development of task complexity awareness (Andersson 2015, 2016; Inglis 2011; Ross 2007). Although TIP was originally designed for deliberation we have found that the different methods (or modules) that TIP comprises can be tailored to suit different contexts. In contexts where groups focused on climate concerns, two prior case studies have been carried out. One process was done in western Canada involving a small group deliberating the question “How do we want to respond to the climate crisis?” Inglis (2009). Another was done in Ohio focusing on climate-change related residential water issues.²

Action Research Predicaments

Some considerations in regards to the action research approach underlying this study warrant specific attention. A significant motivation was to share experiences of group facilitation presenting interpersonal challenges, conflict and confusion; an action research practice that according to Tulinius and Hølge-Hazelton (2011) is often lacking in the reporting. Although the learning potential of such processes is significant, it can easily be lost when difficulties faced are not unpacked and shared with others. Raymer’s (2009) proposal for action research suggests that even when a sense of accomplishment has been achieved at the time of closure, the systematic documentation over the course of the action-research can be used at a later date, with the view to ferret out the implicit theory of a process. The notion of approaching old data anew, in order to elicit more information and insights than what was done in the previous cycle, may be particularly relevant in cases when research data remains ambiguous. Midgley (2000) suggests reflecting on practice from multiple methodological perspectives, and to go

² The documentation from this process has not been published.

beyond the “espoused methodology” and expose oneself to the “methodology in use”. Doing this may result in the eliciting of new entryways and leverage points to work with in future research cycles, as well as “access points for meaningful discussions about aims, means and values” (Raymer 2009, p 529). The developmental nature of such endeavors can yield higher levels of task complexity awareness, as the prior analyzed syntheses become the platform for a new cycle of learning.

An action researcher has multiple roles, in being a member of the social world and a researcher affecting and studying it (Erfan and Torbert 2015). The process of action research is normative in that it is seeking to share power when working with groups for the purpose of generating knowledge, but this does not remove the gap between the action researcher and participants in the process itself (Boser 2006; Godden 2017). If a process leader does not express the same values and norms as a group with a strong social identity, this in turn may affect the efficiency of the group process (Geoff et al. 2013; Midgley et al. 2007).

Essentially, the methods used in action research are personal and embodied: consisting of simultaneously researching and practicing in real-time (Chandler and Torbert 2003; Torbert 1991). Different categories of practice can be referred to as 1st, 2nd and 3rd person practices, consisting of personal, multiple and generalized research voices (Chandler and Torbert 2003; Erfan and Torbert 2015).

As minutely outlined in Denzin (1989), any written account of events needs to be understood within the conditions of its genre. In *narrating* a case it becomes a story, akin to an autobiography, and not totally unlike fiction (Denzin 1989). As action researchers, we recognize the importance of not hiding away the subjectivity and personal influence of written text: a research dilemma that has been explored comprehensively within the field of autoethnography (see for example, Ellis, Adams & Bochner 2011), and, to some extent, in action research (see Erfan and Torbert 2015; Ramsey 2005; Shotter and Katz 1996).

Contextualizing our Action Research

As described in the introduction, as action researchers we are concerned with facilitation of public interactions, and how to provide effective scaffolding by means of facilitation and methods. The original point of departure for the research project of which this article is a part was the assumption that using a structured facilitation process that stepwise provided scaffolding for unpacking, understanding, selecting and deliberating on issue complexity might yield action strategies of better quality than would have been possible without this kind of scaffolding. We wanted to explore whether the TIP facilitation format really generated more complexity awareness, and if so, what consequences this increased complexity awareness might have on hope, motivation and the character of strategies adopted. The group described in this study has been one of several that have been part of our action research where TIP was used (see Jordan et al. 2013) with the aim to develop constructive scaffolding suited for different types of groups. In the case of the Transition initiative, the level of participants’ motivation for action increased, which was explained by the development of pathway perception, in other words, by group members having found tangible sub issues they believed they could effectively act upon (Andersson 2016). Another lesson learnt from this particular group, as outlined in Jordan et al. (2013), was that even though TIP was designed to handle different levels of a group’s meaning-making, contextual adaptation was still needed. In a group, such as the Transition initiative, with members of a high capacity to see systemic issue-properties, but sometimes a fairly congealed view on solutions, there can be a challenge in developing

matching system oriented solutions. Therefore “*a focus on exploring different perspectives on the issues’ solutions as well as causes would yield more learning and create a platform for choosing a strategic part of the problem complex that seems manageable in terms of the group’s resources*” (Jordan et al., p. 47).

While we had thus answered our initial research questions in previous studies, a sense of dissonance remained. We found ourselves engaged in deep conversations about what had actually transpired in our work with this particular group, where the dynamics were so different from other contexts we had worked in. While individual members seemed to have appreciated and benefited from the facilitated process, the group as a whole did not move forward as originally intended. What happened, that we as action researchers seemed unable to adapt our work so that it would truly support the group? Were we, when facilitating, indeed scaffolding their work, or were we rather hampering or even harming it? We felt a need to develop a deeper understanding of how to facilitate processes for similar groups in the future. For us, this study thus makes up a new cycle of learning, from questions that emerged and remained after the previous cycle of researching.

In our experience, a 2nd person, co-reflective inquiry approach was particularly useful for making further distinctions and differentiations when approaching old data anew, especially for engaging in the ‘dialogical investigation’ (Midgley et al. 2007) of the researcher’s identities and purposes. It has been helpful to use the passing of time as an ‘incubator’ (Moustakas 1990) for new points of references, especially in decreasing the sense of researcher vulnerability and, consequently, being better equipped to discern patterns and themes within the research process (Douglas and Moustakas 1985; Janzen 2016). The result is an in-depth study focused on evaluating and learning from this case; i.e. ‘reflecting on action’ (Chandler and Torbert 2003). Beyond looking at old data, we have analyzed data previously not used (such as field notes and other documents) and we have generated new data in form of interviews. This process of analysis makes the case study part of the ‘crystallization’ (Erfan 2013; Richardson 2000) of, as well as a new angle on, the overarching inquiry of research this group intervention is located within.

The narration of the case study is a personal, co-active assemblage of hindsight recollections of the process: through memory, 1st and 2nd person inquiry and written material. In other words, the way the case is narrated derives out of the perspectives of the researchers, but also aiming to include perspectives as communicated by participants. Looking back, specific moments – sometimes called “epiphanies” (Bochner 1984; Denzin 1989; Ellis et al. 2011) – are perceived as more significant than other ones for impacting the trajectory of events and the following analysis. Excerpts from the 1st and 2nd person inquiries are included in the text, emphasizing the researchers’ personal voices and practices textually, as well as the subjectivity, emotionality and the occurrence of epiphanies that were an integral part of the process of analysis. In the narration, we account for the cycles of interaction with the Transition initiative; how it was initiated, which problems the intervention sought to address, the researchers’ facilitation of the group meetings, the group’s and the individuals’ evaluation of the meetings, and the probing of possibilities of further cycles of engagement.

Data Collection

In what follows we will narrate a case in which two of the authors were involved in an action research project that entailed working with a Transition initiative in Sweden. In the group process one of the authors took a facilitator role and the other primarily a non-participant observer role. The data consist of field documents (e.g. process notes and post reflections),

including a group process evaluation, which took place at the end of the last facilitated group meeting. Semi-structured interviews were made with all participants before and after participation. The informed consent process was conducted at the time of the first interview with each participant. Supplementary data includes a co-reflective discussion between the facilitator and the non-participant observer, six years after the group process, as well as 1st person post reflective writing. In addition – with the purpose to get participants views – we approached two participants with the request to read earlier drafts of the paper, specifically asking if there were other perspectives, other impacts or other emergent properties that we had not recognized.

A Case of Transition Initiative in Sweden

The Group Process

In Sweden in 2010, the Transition movement in England (Hopkins 2008) were getting increasing attention; people gathered to discuss Peak Oil, and there was a growing concern to find new ways of involvement to address climate change and take concrete steps to support a local level transition to a sustainable low-carbon society. At this time, an initiator from an adult educational association suggested an open meeting to map the interest in creating a local Transition initiative. At the upstart, this initiative brought together several kinds of change agents. Some people who joined came from the global justice movement, engaged in issues such as global trade and financial systems. Others came from the alternative movement, with a background in small-scale environmentalism seeking sustainability by locating themselves outside and in opposition to the existing systems of production and consumption. The Transition movement also attracted young activists, for whom this movement was their first experience of – and thus a kind of schooling in – social movement activism and network politics.

During the upstarting gathering each individual's motivations was inventoried. Participants had varied backgrounds and areas of interest and consequently broke into smaller self-organized groups to explore how to continue working on their chosen topics of concern. One of the authors was present at the meeting and offered to participate in a group as a facilitator, with the purpose to method-test TIP; expecting that this also could be of value for the Transition initiative. Some individuals, motivated to explore the possibility of introducing an alternative currency³ in a part of the city, decided to bring a group together for this purpose. This resulted in a group of ten individuals from different backgrounds, prepared to participate in a facilitated structured process during five consecutive meetings. The prospective participants received information about TIP and its overall purposes, along with a brief description of the steps of the process.

The facilitating action researcher and academic mentors had several reasons to anticipate an engaged group process that would result in increased clarity of direction and action strategies for the participants. After having used TIP in multiple settings over the course of three years, several patterns that emerged at the boundaries of the structured design and the application of it in real-time group processes had been uncovered and at this point there was ample experience

³ To learn more about what an alternative currency could be intended for or set into practice, see for example, North 2010.

in tailoring TIP for the needs of different groups. While there nearly always had been challenges in working with issues of complexity with heterogeneous groups of actors, there had been no prior experiences of contention with the structured method per se, or with the role of the facilitator. In addition, this particular group consisted of individuals who seemed motivated to come to grips with their issues of choice, in the sense that they had all chosen to take part in this particular subgroup of the Transition initiative. Thus, it was with a sense of positive anticipation that the researchers set to work.

In the first of the structured meetings, the group began by getting to know each and sharing their reasons for joining, after which a cause-and-effect focused mapping was used, with the purpose of revealing key topics that were interconnected with their initial interest. Specifically, the purpose of this module was to analyze the “problem” and delineate the underlying needs and issues for which a local currency could provide some “solutions” i.e. what causes what. This inventory resulted in 51 broad systemic topics and issues, to the surprise of the researchers. In past experiences, with approximately thirty other groups, the map-session resulted in one or a few focused topics for further exploration. With this group this was not the case; most topics that were raised consisted of a systemic map onto itself, where the group members had different ideas of which systems within the map justified most attention. The map, which was intended as a starting point, encompassed numerous world-issues, such as poverty, food transport systems and housing costs and comprised technological, institutional and economic systems. The first meeting ended somewhat hastily, as each step took a lot longer than anticipated. Before the next session, an email was sent out to the group members with details about the next session. This was the practice between each meeting in order to keep track of what had been achieved and what needed further preparation.

In the second meeting, a module called ‘Turning a Topic into an Issue’ was used, and was tailored to move in the direction of choosing a specific ‘issue complex’ for further delineation after having acquired the broad picture created by the map. As the mapping had not facilitated the group making priorities on how to proceed, this step became a retake; a new inventory where the facilitator asked the group to specifically focus on what concerns in their *local community* they considered that an alternative currency would address. Centering specifically on locality had the purpose of creating a boundary, in other words to set reasonable limits for a focused process. This strategy did not have intended effect, as the group made very different boundary judgments, according to their values and purposes.

I opened my notes from the second meeting and what is listed is very broad and pointing in many directions. Like here, the need for social community, non-toxic endurable gadgets – well that one is quite concrete – the need to diminish the ecological footprint –well that is an entire system boiled down to a concept that gets squeezed in here – getting people work in the public sector, that is also a complex reasoning... [...]. I mean, something happens when trying to make an inventory with this kind of group. The things that get listed are not being fairly represented in this kind of inventory. *Excerpt from 2nd person, co-reflective inquiry, 2016.*

The method used for moving from identifying the interrelated systems that were important to their overall concern for the climate, into defining concrete and specific issues, had not made sense to the group. When needing to make a priority for the next step, confusion arose. “Why

do we need to make a choice? “Should we not choose the broadest issue possible, that is the most inclusive of everything that has been raised?”⁴ It was not the case that all participants were equally engaged in every topic raised. Rather, different individuals favored different topics, and some of them were happy to stay discussing their preferred issues for a longer time. But the structured process was designed for making priorities at each step; also, time was limited. A discussion emerged on how to get ahead: to seek consensus or to vote? At this point the group collectively wanted to reach a joint decision, something that was emphasized in the reflection at the end of the meeting. The group voted on which topic to explore further and the majority of votes landed on one framed as “the distance between consumer and producer”. This choice moved the group away from their initial idea of exploring the implementation of a local currency, which seemed motivated by the overarching engagement with a green economy and a car free city.

In the third meeting, the group explored their chosen topic in a ‘Portrait’ (Ross 2006), by investigating attitudes and behaviors, actions and inactions that in some way made up aspects of the issue-complex. The main part of the fourth meeting was a pre-step for creating a systemic action plan and inventory paths ahead for the group participants. The ‘Portrait’ served as an informed base for this purpose. During this meeting a conflict arose. A participant in the group expressed strong frustration with the structured process and claimed that it only served purposes important to the facilitating researcher while hindering the group members’ free discussions. The participant also expressed contention with the facilitator’s globalized academic practices, for example, the using of English as the academic language and unjustified global travelling to conferences. After some discussion in which little common understanding emerged, the participant had to leave the meeting early to catch a bus. At this point, the facilitator’s role was discussed and problematized from the remaining group’s points of view, emanating in an expressed need to “*break the facilitator’s monopoly on the bird perspective and to increase a collective ownership in each step*”.⁵ The group expressed frustration with not fully understanding the structured design and that it sometimes did not make sense to go about processing in such manner. Consequently, the facilitator proposed to theoretically outline the structured process in a separate meeting. This meeting was greatly appreciated for connecting many dots for the participants and several of them expressed that it would have made a big difference to their engagement if there had been full transparency of the rationale for each step ahead of doing it.

The participant who had expressed strong frustration wrote an email explaining that she would not continue as planned. While she regretted her outburst, and would have been happy to continue meetings with the group members, she maintained that the process and the facilitation felt like a “Procrustean Bed” in which she felt “mutilated”. She suggested that the facilitator did not share the group’s values, and had failed to problematize her lack of awareness about this, which to her presented a problem; even while the rest of the group members maintained confidence in the process and the facilitation.

In the fifth meeting, the group was guided through a method to ‘digest their action system’ for how to pursue their aims. As the group members remained interested in different issues and engaged to different degrees, this step was used to grasp in what ways it would make sense to start organizing meetings and activities in subgroups, once the facilitated process was over.

⁴ Field notes by observing researcher, second meeting.

⁵ Field notes by observing researcher, fourth meeting.

Later, some participants met with other non-group members who wanted to engage in urban agriculture, and together with the facilitator they made an inventory of interest in organizing a TIP-deliberation with different stakeholders, including city officials. A concern was then raised that there was no point in deliberation with other stakeholders, since engaging in similar discussions had lead nowhere in the past. The facilitator suggested that TIP was specifically suitable for a deliberation that would go beyond regular ways of discussing, as the methods involved were tailored to enable participants to take multiple perspectives and to step out of their role-identity. The group did not come to an agreement on whether to launch a deliberation and was adjourned indefinitely; a decision that participants who wished to pursue a path of initiating multi-stakeholder collaborations expressed disappointment about. In the same time period, an opportunity to acquire a few cultivation plots for growing organic vegetables was emerging within the larger Transition network and the majority of the group felt they had enough work to do on the land.

Evaluating and Reflecting on the Group Process

At the end of the last meeting and in the subsequent individual interviews, it was time to acquire some evaluative distinctions about what it had meant for the different participants to use a large amount of structure and facilitation during their meetings. In the following section the result of the participants' reflection is organized in an adapted portion of Midgley et al. (2013) methodological framework, together with additional context setting information (see Fig. 2). This way of structuring the data shows the participants' different perceptions on the process and the outcomes; what they thought were shortcomings in the process and what they would have liked to be different. Even though the structured design was one reason for a large portion of the frustration during the process, here we see that the participants' open-ended motivation also played a significant part in the trajectory of the group's meetings and decisions.

Context and Stakeholders

The group was diverse, in terms of the group members' age, interests, education and backgrounds. Some participants' held university degrees, others had backgrounds in vocational training. The length of prior exposure to political and social movements and to ideas of transition and climate action varied significantly amongst group members. Some participants were used to meetings with a chairperson, others to spontaneous non-structured meetings with people of similar age and interests. While everybody had expressed that they wanted to try a structured group process, as previously stated, typical to much of the general public, most of the participants had not been exposed to facilitated structured meetings of a similar character, and none had prior exposure to methods with developmental, complexity-based underpinnings. Our notion is that they did not expect that it would be challenging or hard for them to grasp, just as we had not anticipated the extent to which it would be so challenging to use TIP in this context. Certain participants had low degrees of trust in other societal actors and were highly skeptical towards existing systems; others wanted to strike up broad collaborations.

The facilitating action research was located within a wider context of a method-development research project at a university. Both of the action researchers were embedded in academic environments, yet the non-participant observer had long experience of participation in political and social movements, while the facilitator had very little experience of that.

Fig. 2 Methodological framework for evaluation, adapted from Midgley et al. (2013) with permission

For the most part, the role of the researchers was considered an asset, in presenting an innovative method that could potentially be of value: both as a process and for outcomes. At certain points several group members were confused and sometimes frustrated with the structure, but with the one exception, they remained open to find out more about it.

Purposes and Motivations

Much of the motivation behind the researchers' engagement was explicated in the introduction. We are strongly motivated to develop good process designs for working on issues of societal complexity. Specifically to this process, in our roles as action researchers, the main purpose and motivation was to test TIP while, and by, being of service to the group's Transition initiative. Over the course of the process, these purposes and motivational forces began to partly conflict with one another.

When reflecting on the process six years later, it was very clear that we had started with an assumption that the participants were inhabited by a more precisely focused motivation for attending. Although the group had gathered for the stated purpose of investigating the subject of local currency, their motivations were in fact rather open-ended and mixed, and only a few of the participants expressed strong motivation to work towards the implementation of a small-scale currency. Some participants had been attracted to the idea of testing a complexity based structured process.

When I read through the interviews, five of the nine participants that were interviewed said that they had initially been interested in finding ways to approach alternative economy, but only one person expressed explicit disappointment that the process did not move in that direction. Three people even conveyed excitement and motivation over the unfolding of the process, in terms of the plans they had made. As many as six people expressed that they had hoped to learn something about the method, and four out of those wanted to see if they could use it themselves in future processes. Also, in the pre-interviews only half of the participants chose to address alternative currency as the topic to elaborate on during the interview. Some people expressed that it was not something that they had given much thought. *Excerpt from co-active inquiry, 2016.*

In the interviews, the majority of the participants expressed neither an initial motivation, nor an expectation, to find a common goal as a whole group to work towards. What was expressed initially was, for some participants, an interest in finding out about other people's ideas and to learn from their engagement; not necessarily find things to collaborate on. For some, even to find one or two people within the group would have sufficed as a starting point. One person expressed that he wanted to try his ideas in a forum and get feedback from the others.

One participant focused on the problematic of using a structured process aiming at concrete actions with a group of strong individuals who had so much "idea baggage". For future processes he proposed the importance of "*taking more time in the beginning to make an inventory of people's motivations*", before assembling a group in such an ambitious process. For him, this was a take-away learning from the meetings, for his own engagement in future processes. In the group evaluation the same person expressed that the group had high levels of ambition and a 'strong charge' – so strong it was hard to get anything together. Yet he was personally very motivated when experiencing the resilience and strength of the group members, even if this meant that it was harder to collaborate at times. A couple of participants addressed the dispersed motivation as a source frustration with their group dynamics, and as a negative effect on the outcome.

There we were, about 12 or something, each with our own specific point of view, about what mattered and what didn't. The alternative movement must get better at uniting around some things and to deal with the fact that priorities will perhaps not always favor exactly what 'I want'. Otherwise there will just be many, many, many little groups of one or two participants. And then nothing of significance will happen. (*Participant, post process interview*).

Method and Process

For the participant who had gathered the group on the topic of local currency, the open-ended motivation was a strong indication "*to choose collaborative partners and forums with more precision*" in the future. In the group evaluation she addressed some of the difficulties in using a structured process:

We are a difficult group in that we are very dispersed. Perhaps it is the way of democracy, high and low, concrete and visionary. For some time I felt that we were trapped in the structure of the process, but now I realize that this is how we are, even when you are not facilitating.

One participant expressed that this method had helped him to listen more to others. *“In other meetings there is always someone who tries to kick me in the ass, tries to make me stop talking all the time”*. He felt the process was freer than meetings with agendas and minutes, where he found people were held back, scared not to conform to existing norms.

The Transition initiative was the first group that midway through the process felt a need to understand TIP as a step by step process, a need that lead us to have a separate meeting so the participants could feel more included. After the process was concluded, some participants expressed enthusiasm about having unpacked issues with such scrutiny, and to commit to a certain direction *“instead of leaving everything open”*. As mentioned earlier, the structure was also a source of frustration to some, even to the point where it felt ‘mutilating’ to the discussion of the issues.

Researcher’s Post Reflection on Facilitating the Process

When going through the field notes again and engaging in 1st person writing, an unanticipated epiphany occurred, as the analytical gaze fell on the facilitator’s struggle and limitations, rather than on the group’s.

Looking now at the notes from the second meeting, I am struck by the clarity that this is where I lost the rudder. It hurts to see these notes. I need to take a break, have a tea and digest all the emotions of confusion and sense of inadequacy. I did not know what more words I could use to explain how to go about this step. Instead of becoming more concrete, the opposite happened. The whole group got confused.

It began to sink in that I had been stretched way out of my ability. A sore memory. Conducting research, following a method, facilitating this kind of group, feeling like I was not of service to the group and failing at representing TIP. I had never facilitated TIP within this kind of context, and whatever skills were needed; I did not have them at that time. I was stretching to fit the task of navigating the group. There was simply too much information, the group dynamics, the group confusion (within their own dynamics, the method’s steps, and with my role), and I was feeling uneasy with prompting the group to make a choice for the next step, when they were in the middle of all of that. *1st person post-reflective writing.*

Being in touch with the memory of one’s own lack of capacity in turn lead to a deeper understanding of another, interconnected, ‘Procrustean bed’, namely the internal stretching to follow a particular research agenda, even at times when it felt counter-intuitive to the process.

If I would have listened more deeply to my own compass I would not have started where we did. I would have gotten a trajectory with the group based on my own understanding, not trying to live up to or stretch to meet my mentor’s methodological skills. It had felt like the wrong place to start for me. Cognitively, I could follow the action logics, yes, the group needed to get behind their assumptions to why a local currency would be a solution and to what, but in practice I did not at all get the sense of how to start with a mapping, since the group already had an idea of something they wanted to investigate. So I did not have an internal sense of direction to guide me. *1st person post-reflective writing.*

Outcomes

The group process had focused the participants towards the issue of urban agriculture, which to most of them felt like a positive outcome. Another central outcome was to meet with and learn from people of similar interests, in particular those they otherwise might not have exchanged thoughts with. Although sometimes frustrating, the gaining of insight into a complexity-based method was of significance to all of the nine remaining participants. In the post interview, participants reflected on what they had learnt. Some expressed that the structure and facilitation had given them the opportunity to understand their own habitual meeting-forms better. Learning about the complexity of the issues was a central outcome.⁶ For example, one person expressed he had become less naïve, in that he now understood that resolving the issues at hand would involve much more than he initially expected.

For the researchers, to work with this Transition initiative presented difficulties and challenges that we had not encountered before. As expressed earlier, an outcome has been the engagement in several cycles of inquiry over a long time-period. The fact that the topic that the group initially had met to explore was not adequately unpacked, has probed us to think extensively on method development. The epiphany that resulted from ‘using new methods for looking at old data’ had significant consequences for the epistemological assumptions about the research project in its entirety, as well as new perspectives on the implicit theory of change that underlined it. Over time it has resulted in inquiring into problems inherent in conducting method-centric action research.

Conclusions

While it is not possible to evaluate any participatory approach from one unique case study, there are several interesting aspects that can be discerned in the relationships between the context, purposes, methods and outcomes (Midgley et al. 2013). In what follows we will point out some key considerations.

The interacting *contexts* between *action researchers* and the *group* functioned as a constraint on the groups’ process for a number of reasons. The structured *process* did not interact well with the cultural norms of the group and affected the relationship between the group and facilitator. In this case it touched on the topics of hierarchy, power, leadership, trust, but also the values of locality, the ‘green value’ of creating closeness between consumer and producer. This is one way to understand how the objection to the world of academic globalism came up within in the process. In the narrative of the case, we see the expressed metaphor of Procrustes as a “ghost role” (Mindell 1992, 2008; Siver 2007), representing something that needed to be discussed openly, but instead showed up as conflict and avoidance. To this end, the facilitative skills as well as the *methods* to address these issues proved unsatisfactory.

The scale and scope in which the group members chose to address their topics opened up to the dilemmas involving making adequate ‘boundary judgments’⁷ (Churchman 1970; Midgley et al. 2007). Issues relating to climate change can essentially be classified as ‘wicked issues’

⁶ The relationships between task complexity awareness and hope and motivation has been further delineated in Andersson 2016.

⁷ To make boundaries for a discussion is to draw distinctions between what information is important and relevant and what is superfluous. To draw these boundaries is to make ‘boundary judgments’ (Midgley et al. 2007).

(Chapman et al. 2009) and without agreeing and understanding the necessity for setting boundaries for the analysis, discussions become inclined to the trap of ‘continual expansion of boundaries’ (Midgley et al. 2013). The structured process was intended as constructive scaffold for focused discussions, but did not function as such. The participants were not used to attend to issues through a large degree of systematic structuring, and at times it was at odds with the group’s propensities for unconstrained, unstructured discussions. The facilitator attempted to work towards a collective boundary judgment with a group that did not see the point of delimiting the discussions. The process during the first two meetings became rather ineffective, especially when applying the modules of ‘Mapping’ and ‘Turning a topic into an issue’. The fact that the action researchers were institutionally located in a research project, with a set of method-centric research questions for investigating TIP, added complication. In order to adhere to the research design, as facilitators, we sometimes acted at odds with our own process inclinations.

When comparing the group’s open-ended *motivations* for meeting and the action research *purpose* to use a method with the developmentally structured ambition of TIP, it is clear that this was not an optimal match. In the case of the Transition initiative, their particular movement culture meant that they would have been served by the possibility of taking more direct ownership of the process from the beginning. As it were, the group’s motivation might not have been ripe for truly engaging in the effort that working towards a local currency, or to even grapple with the thought of what it would entail.

Despite a process that entailed frustration and confusion, there were several positive *outcomes* that emerged from the group process, some of which related to the use of developmental scaffolding. To some of the group members the structured process was considered a resource for knowledge production, and they expressed that participating had become a source of inspiration for designing different group processes in the future. Several participants expressed that they had engaged in interesting discussions with other people they shared interests with and, in total, the group’s motivation for continuing to work on climate related issues had increased after participation (Andersson 2016).

By putting the four dimensions of the methodological framework together, and viewing research design, structuring methods, facilitation and participants as an interactive wholeness, we gained important evaluative distinctions for both failures and achievements in the case of the Transition initiative. While this was a local and unique study, it has focused some pertinent dilemmas for actions researchers using a structured, developmental focus.

Discussion

A main motivation in writing this article came from a sense that there were still unexplored learning opportunities to be unpacked from the facilitation experience, and that there were relevant patterns in the group process that could be usefully articulated. By scrutinizing the action research practices, following Raymer’s (2009) and Midgley’s (2000) proposal, we began by going through all the material; the meeting notes, audio data from first meeting, pre and post process interviews. From co-reflecting on these actions six years after the group process, and using the Midgley et al. (2013) framework, new connections were established.

From the view of Shotter (1995) there is a need for a “particular form of life” of authentic inquiry in conversations, where those engaged need to be connected to each other in some way, morally. We would agree with Tulinius and Hølge-Hazelton (2011) that to analytically

scrutinize the unexpected results that conflicted with our original assumptions has added richness to our research and transformational learning for our future practices. To develop solid trust between facilitators and participants is hard currency, and facilitative skills involves making sense of group dynamics, including the part that the facilitator comes to play in these dynamics (Phillips and Phillips 1993). Through our co-active inquiry when discussing the outcome of using a developmental, structured process in the bottom-up and emergent meeting culture of the social movement we came to see several of our unreflective assumptions. We had assumed that the group would – with the help of the method – make collective boundary judgments on which issues this wished to prioritize. However, the topics being discussed continually expanded to include more systems, which did not easily lend themselves to being labeled as more or less essential to the group members overall concern for the planet. We also had expected that it would be logical for the group to perform their issue analysis stepwise towards an actionable scale and that the group members’ personal motivation would lead them to make collective action plans. We had not expected that the group members might experience ambiguity regarding the researchers’ multiple roles or that the facilitator’s lack of knowledge of the Transition movement would be problematic.

As Boser (2006) points out, action research is an emergent process, with unforeseeable consequences, and there is an ethical issue of negotiating informed consent throughout each cycle of inquiry. Mongoven et al. (2016) argue that participants in deliberative processes should be able to challenge or amend process designs, which then need to be built into the design and discussed. This presents us with the inherent dilemma of staying open to the organic unfolding of a process while testing a method, and, as Midgley (2000) suggests, we may need to go beyond an “espoused methodology” and expose ourselves to the “methodology in use”. There are inherent limitations in any model for creating participative processes, and, and as Funnell and Rogers (2011) point out, all program theories need continual revisions, as emergent issues arise. The ongoing orchestrating of a process of learning may imply letting go of parts of our most favored methods, which can involve facing discomfort, and a sense of discontinuity with the trodden path.

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References

- Andersson P (2009) Perspektivvandringar: Att arbeta med trygghetsfrågor i lokalsamhället. Tryggare och Mänskligare Göteborg. Retrieved from http://www.tryggaremanskligare.goteborg.se/pdf/publikation/PV_low.pdf Accessed 29 Nov 2017
- Andersson P (2015) Scaffolding of task complexity awareness and its impact on actions and learning. *ALARj* 21(1):124–147
- Andersson P (2016) The dynamics of hope and motivation in groups working on complex societal issues. *Int For Rev* 12(1):4–31
- Bochner AP (1984) The functions of human communication in interpersonal bonding. In: Arnold CC, Bowers JW (eds) *Handbook of rhetorical and communication theory*. Allyn and Bacon, Boston
- Boser S (2006) Ethics and power in community-campus partnerships for research. *Action Res* 4(1):9–21
- Bunker BB, Alban B (2006) *The handbook of large group methods: creating systemic change in organizations and communities*. Wiley, Chichester
- Chandler, Torbert (2003) Transforming inquiry and action. *Interweaving 27 flavors of action research*. *Action Res* 1(2):133–152

- Chapman J, Edwards C, Hampson S (2009) Connecting the dots. Demos, London
- Checkland P, Scholes J (1990) Soft systems methodology in action. Wiley, Chichester
- Churchman CW (1970) Operations research as a profession. *Manag Sci* 17:37–53
- Commons ML, Miller PM, Goodheart EA, Danaher-Gilpin D (2005) Hierarchical complexity scoring system: how to score anything. Unpublished scoring manual available from dare institute. Accessed on the 10th of February, 2017 from <http://www.dareassociation.org/Papers/Scoring%20Manual.htm>
- Denzin NK (1989) Interpretive biography. Sage, Newbury Park
- Douglas BG, Moustakas C (1985) Heuristic inquiry: the internal search to know. *J Humanist Psychol* 25(3):39–55
- Ellis C, Adams TE, Bochner AP (2011) Autoethnography: an overview. *Forum Qualitative Social Research* 12(1). Available at: <http://www.qualitative-research.net/index.php/fqs/article/view/1589/3095>. Accessed 19 Aug 2017
- Erfan A (2013) An experiment in therapeutic planning: learning with the Gwa'sala-'Nakwaxda'xw first nations. Unpublished PhD Dissertation, School of Community and Regional Planning, University of British Columbia, Vancouver
- Erfan A, Torbert WR (2015) Collaborative developmental action inquiry. In: Bradbury H (ed) *The sage handbook of action research*. Sage, London
- Fein E, Jordan T (2016) Adult development meets social sciences – reviewing the state of the art. *Behavioral Development Bulletin* 21(2):136–153
- Funnell SC, Rogers PJ (2011) *Puposeful program theory: effective use of theories of change and logic models*. Wiley, San Francisco
- Geoff TG, Martin R, Riggio RE (2013) Leading groups: leadership as a group process. *Group Processes & Intergroup Relations* 16(1):3–16
- Godden NJ (2017) The participation imperative in co-operative inquiry: personal reflections of an initiating researcher. *Journal of Systemic Practice and Action Research* 30(1):1–18. <https://doi.org/10.1007/s11213-016-9387-2>
- Hawken P (2007) *Blessed unrest: How the largest movement in the world came into being and why no one saw it coming* p342. Viking.
- Holman P (2010) *Engaging emergence: turning upheaval into opportunity*. Berrett-Koehler, San Francisco
- Holman P, Devane T, Cady S (2007) *The change handbook: the definitive resource on today's best methods for engaging whole systems*. Berrett-Koehler, San Francisco
- Hopkins R (2008) *The transition handbook. From oil dependency to local resilience*. Green Books Ltd., UK. ISBN 978 1 900322 18 8
- Hopkins R (2011). *The transition companion: making your community more resilient in uncertain times*. Chelsea Green Publishing, UK. ISBN 978 1 900322 97 3
- Inglis J (2007) Matching public interaction skills with desired outcomes. *International Journal of Public Participation* 1(2):2–17
- Inglis J (2008) Evolving to address global climate change and the scale of public interactions. *World Futures Journal of General Evolution* 64(5–7):498–502
- Inglis J (2009) Publicly created systemic responses to climate change: an integral approach to civic engagement. *Journal of Integral Theory and Practice* 4(4):67–87
- Inglis J (2011) “Holistic democracy” and citizen motivation to use a more holistic approach in public decision making. *Int For Rev* 7(2):3–46
- Jackson MC (1987) Present positions and future prospects in management science. *Omega* 15:455–466
- Janzen K (2016) Into the depths of reflexivity and back again—when research mirrors personal experience: a personal journey into the spaces of liminality. *Qual Rep* 21(8):1495–1512
- Jordan T (2014) Deliberative methods for complex issues: a typology of functions that may need scaffolding. *Group Facilitation: A Research and Applications Journal* 13:50–71
- Jordan T, Andersson P, Ringnér H (2013) The spectrum of responses to complex societal issues: reflections on seven years of empirical inquiry. *Int For Rev* 9(1):34–70
- Kolfschoten G, Hengst-Bruggeling M, Vreede G-J (2007) Issues in the design of facilitated collaboration processes. *Group Decis Negot* 16:347–361
- Midgley G (1992) Pluralism and the legitimization of systems science. *Systems Practice* 5:147–172
- Midgley G (2000) *Systemic intervention: philosophy, methodology, and practice*. Kluwer/Plenum, New York
- Midgley G, Ahuriri-Driscoll A, Baker V, Foote J, Hepi M, Taimona H, Rogers Koroheke M, Gregor J, Gregory W, Lange M, Veth J, Winstanley A, Wood D (2007) *Practioner identity in systemic intervention: reflections on the promotion of environmental health through a Maori community development*. *Syst Res Behav Sci* 24:233–247
- Midgley G, Cavana RY, Brocklesby J, Foote JL, Wood DRR, Ahuriri-Driscoll A (2013) Towards a new framework for evaluating systemic problem structuring methods. *Eur J Oper Res* 229:143–154
- Mindell A (1992) *The leader as martial artist: an introduction to deep democracy. Techniques and strategies for resolving conflict and creating community*. Harper Collins, San Francisco

- Mindell A (2008) Bringing deep democracy to life: an awareness paradigm for deepening political dialogue, personal relationships, and community interactions. *Psychotherapy and Politics International* 6(3):212–225
- Mingers, J, Rosenhead, J (2011) Introduction to the Special Issue: Teaching Soft O.R., Problem Structuring Methods, and Multimethodology. *INFORMS Trans Educ* 12(1):1–3.
- Mongoven A, Lake D, Platt J, Kardia S (2016) Negotiating deliberative ideals in theory and practice: a case study in "hybrid design". *Journal of Public Deliberation* 12(1):1
- Moustakas C (1990) *Heuristic research: design, methodology and applications*. Sage, USA
- North P (2010) *Local money: how to make it happen in your community (the local series)*. Cambridge: UIT Cambridge. ISBN: 190 0 3225 28
- O'Brien K (2012) Global environmental change II: from adaption to deliberate transformation. *Prog Hum Geogr* 36(5):667–676
- Phillips L, Phillips M (1993) Facilitated work groups: theory and practice. *J Oper Res Soc* 44(6):533–549
- Ramsey C (2005) Narrating development. *Professional practice emerging within stories*. *Action Res* 3(3): 279–295
- Raymer A (2009) Big returns for a little more investment. *Mapping theory in emergent research*. *Action Res* 7(1): 49–68
- Richardson L (2000) Writing: a method of inquiry. In: Denzin NK, Lincoln YS (eds) *Handbook of qualitative research* (2nd Ed.). Sage Publications, Thousand Oaks, pp 923–948
- Riedy C (2011) Futures of the climate action movement: insights from an integral futures approach. *Journal of Futures Studies* 15(3):33–52
- Rommetveit K, Funtowicz S, Strand R (2010) Knowledge, democracy and action in response to climate change. In: Bhaskar R, Frank C, Høyer KG, Næss P, Parker J (eds) *Interdisciplinarity and climate change: transforming knowledge and practice for our global future*. Routledge, Abingdon
- Rosenberg SW (2002) *The not so common sense: how people judge social and political life*. Yale University Press, New Haven
- Rosenberg SW (ed) (2007) *Deliberation, participation and democracy: can the people govern?* Palgrave Macmillan, Hampshire
- Rosenhead J, Mingers J (eds) (2001) *Rational analysis for a problematic world revisited: problem structuring methods for complexity, uncertainty and conflict*. Wiley, Chichester
- Ross SN (2006) *The integral process for working on complex issues*, 4th edn. Arina, Bethel
- Ross SN (2007) *Effects of a structured public issues discourse method on the complexity of citizens reasoning and local political development*. (Doctoral dissertation). *Dissertation Abstr Int B*, 68 (02). (UMI No. 3251492)
- Ross SN (2009) Toward systemic societal entrepreneurship: Opportunities, theories, and methods. In J. A. Goldstein, J. K. Hazy, & J. Silberstein, (Eds.), *Complexity science and social entrepreneurship: Adding social value through systems thinking*. Exploring Organizational Complexity Series, vol 3. ISCE Publishing, AZ. pp 135–155
- Rowe G, Frewer LJ (2000) Public participation methods: a framework for evaluation. *Sci Technol Hum Values* 25:3–29
- Shotter J (1995) In conversation: joint action, shared intentionality and ethics. *Theory and Psychology* 5(1):49–73
- Shotter J, Katz A (1996) Articulating a practice from within the practice, itself: establishing formative dialogues by the use of a 'social poetics'. *Concepts and Transformations* 1:213–217
- Siver S (2007) *Process work and the facilitation of conflict*. (Doctoral dissertation). Union institute and university, Cincinnati
- Torbert W (1991) *The power of balance: transforming self, society, and scientific inquiry*. Sage, Newbury Park
- Tschakert P, Dietrich KA (2010) Anticipatory learning for climate change adaptation and resilience. *Ecol Soc* 15(2):11
- Tulinius C, Hølge-Hazelton B (2011) When the spiral of action research collapses: using the arts to interpret and continue the process in collective research dialogues. *Action Res* 9(1):42–64
- van der Zouwen, T. (2011). *Building an evidence based practical guide to Large Scale Interventions: Towards sustainable organisational change with the whole system*. Eburon Academic Publishers, Delft
- Witte EH (2007) Towards a group facilitation technique for project teams. *Group Processes & Intergroup Relations* 10(3):299–309
- Zubizarreta R (2014) *From conflict to creative collaboration: a user's guide to dynamic facilitation*. Hillcrest Publishing Group, Minneapolis