THE ROLE OF IMPROVISATION IN PROCESSES OF INNOVATION

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ABSTRACT

In this paper, we explore innovation, as an inherently uncertain process, from a complexity perspective in which innovation is understood as new patterns of experiences, as they emerge in human conversational interaction. By reflecting on local interactions between people involved in processes of innovation, in three particular organizations for which one of the authors acted as consultant/researcher, we explore the improvisational nature of interaction by relying on a set of experiences of improvisational theatre. These experiences show, amongst others, that such processes are collective efforts that take place as ordinary conversations, which sometimes unpredictably turn into windows of opportunities to enable change. We introduce the notion of *invitations,* by which we mean conscious or unconscious moves that encourage the involved people to take spontaneous moves together in a mutually improvised context. We argue that such situations and the following interactions can possibly have a long-term impact on organizational processes. We also discuss implications for managers and consultants who work with processes of change in innovation.

INTRODUCTION

Innovation is often seen as a problem-solving process that consists of cycles of trial-and-error and experimentation (Thomke, 1998; von Hippel, 2005). It can moreover be distributed within and across organizations (Bogers & Lhuillery, 2011; Hillebrand & Biemans, 2004). Such a process of ongoing conversations and experimentation has a high degree of uncertainty, while the costs might be very high and the outcome unknown (Foray, 2003; Thomke, 2003). While innovation has been studied at various levels, the micro-foundations of such processes are not yet fully understood (cf. Keupp et al., 2011; Teece, 2007), which calls for more research that explores the ordinary activities and routines that people become involved in (Coff & Kryscynski, 2011; Felin & Foss, 2005; Lewin et al., 2011). More generally, there is still a need to further explore the micro-context of communicative interactions among individuals through which meaning is negotiated (Thomas et al., 2011).

We will explore this theme from a complexity perspective. The insight in complexity from natural sciences (Kauffmann, 1995; Prigogine, 1997) that the overall patterns emerge in local interaction between the entities in which there is no blueprint has led to several takes on using this insight into understanding organizational activities in which the overall pattern of interaction can be understood as emerging from the web of local interactions between humans. In this systems perspective, the manager is however often still expected to be able to shift between being part of the system and being outside, taking a kind of designer role (Brown & Eisenhardt, 1998; Plsek & Wilson, 2001; Wheatley, 2005).

Stacey et al. (2000) take a critical stance towards this and take another route by focusing on the local interactions that lead to the overall picture as something everybody is part of and cannot escape. Consequently, they reject to understand human interaction from a systems perspective where focus inevitably becomes on being part of a system and on the boundaries of the system(s) in favor of focusing on relating between the involved. Instead they focus on the activity in local interactions as "complex responsive processes of

relating" as ordinary, ongoing communicative processes among humans in which we continuously respond to each other. This gives an argument in understanding the nature of transformative processes, which can then be seen as emerging in the understandings and misunderstandings that go on in the local communicative interaction (Stacey et al., 2000; Stacey, 2002). Therefore, the emergence of new patterns of interaction or conversation can eventually lead to innovation, which consequently can be seen as a new patterning of our experiences of being together, as also argued by Fonseca (2002).

In this paper, we explore some elements of local interactions among people involved in processes of innovation in a few particular organizations, with the intent to explore what we will call the improvisational nature of interaction (cf. Larsen, 2005).

BACKGROUND

THE PROCESS OF INNOVATION

Innovation scholars have long explored the drivers, processes and outcomes of innovation, at a variety of levels (e.g., Dosi, 1988; Gupta et al., 2007). When focusing specifically on the actual innovation process, an important element is that it can be described as a problem-solving process, which can be characterized as iterative cycles of trial-and-error and experimentation (Thomke, 1998; von Hippel, 2005). As such, the innovation process, in operational terms, cannot always be clearly specified and predicted but is rather embedded with a high degree of uncertainty.

One route to take could be to amplify the importance of investigating the individual-level characteristics of the process of innovation (cf. Coff & Kryscynski, 2011; Lewin, et al., 2011; Volberda, et al., 2010). In this light, improvisation can be seen as key mechanism that enables individuals to maneuver in such a context of uncertainty and continuous change (Brown & Eisenhardt, 1998). In improvisation, action is taken in a spontaneous and intuitive fashion, and it addresses multiple areas, such as cultivating leadership, developing individual skills and fostering teamwork (Crossan, 1998). Improvisation thus relates to both individual actions and collective interactions (Vera & Crossan, 2005). Vera and Crossan (2004) argue that successful improvisation (improvisational theatre in particular) is equivocal and unpredictable, and focuses on the process of improvising rather than the outcome of improvisation.

COMPLEXITY OF SOCIAL INTERACTION

As mentioned, Stacey et al. (2000; see also Stacey, 2002) have developed an understanding of local interaction among humans as what they call complex responsive processes of relating. Here they draw on George Herbert Mead's (1934) understanding of communication, in which humans respond to the gestures they get from each other in the ordinary

processes of daily interactions, and meaning emerges out of these interactions. Mead presents a radically different understanding of the role of communication than the well-known sender-receiver model presented by Shannon and Weaver (1949). In this more prevalent understanding, communication just becomes a tool for distributing what is already thought, while for Mead the communicative processes create mind and self of the individual as well as the society as such (Mead, 1934). Therefore, in the complex responsive processes, thinking of the transformational capacity of communication is key in understanding how human interactions become what they become. In such local interactions, we negotiate what we do, who we are and what we become. Such interactions can only happen in the present, which for Mead is different from just a point in time. We are in the present moment drawing on our way of understanding the past, and our intentions for the future, while at the same time, paradoxically, the action in the present moment are influencing our way of understanding the past and the ideas about the future.

These interactions become complex because humans meet each other with different intentions and we thus have to react in the present moment on what is going on. What creates an organization are ongoing, repeating patterns of interaction in which images of structure emerge because we keep reifying them.

IMPROVISATION AS A COLLECTIVE EFFORT

When dealing with uncertainty, people in organizations interpret what usually happens (cf. routines) to make sense of the situation. Such interpretation requires the interaction of different stakeholders within the organization who are involved in an ongoing process of negotiation and readjustment of goals, based on the (initially) diverging intentions, which Stacey et al. (2000) have phrased "the politics of everyday life". It is also through experience and reflection that the stakeholders are able to recognize patterns, which are the result of the interaction that they and other people are mutually co-creating.

Acts of improvisation can thus be seen as a central element in the ongoing conversations and experimentation as a way to deal with the inherent uncertainty and thereby ultimately increase innovation performance (Brown & Eisenhardt, 1998; Vera & Crossan, 2005). In ordinary conversations improvisation is usually understood as activities done by single individuals, and in the literature such an individual stance towards improvisation is taken by several influential authors, such as Weick (2001, 2002), Barrett (2002) and Bastien and Hostager (2002), who all draw analogies to Jazz improvisation.

However, from a perspective of complex responsive processes of relating, improvisation cannot be seen as a purely individual activity, but has to be understood as a mutual relational activity because humans will inevitably be influenced by each other's perspective and reaction into their own gesturing in the present moment.

Also Vera and Crossan (2004, 2005) find that the theatrical metaphor has several advantages over the jazz metaphor and from working with improvisational theatre they also come to the conclusion that improvisation is a relational activity, although from a different (systems) perspective. Johnstone (1981) moreover describes the emergence of the scene and the roles of the actors in theatre improvisation as processes of re-acting, the individual actor finds his role in responding to other's action, a perspective with strong analogies to the thinking of complex responsive processes of relating (Larsen & Friis, 2005, Larsen 2005).

In the light of this, all what humans do in their interaction will to some degree be improvised, because we cannot know in advance what gestures each of us will have to respond to. But humans tend to stick to well-known patterns of conversation, which, in the light of Mead's (1932) thinking, is because this is how we can recognize ourselves and each other, and we therefore exert what he calls "social control" as a way to restrict ourselves in the interaction because we have the capacity of taking the attitude of the other.

"MANAGING" RISK AND SPONTANEITY
In this light it is obvious that in processes of innovation, if something new emerge, it has to be a consequence of relating in which the nature of interaction is more radically improvised. If the involved try to stick to just repeating well-known patterns, the interaction will tend to reify what is already well known (Larsen, 2005). So, although all conversation is to some degree improvised, the participants will be able to recognize that there will be differences in the quality of the improvisational nature of the conversation (Buur & Larsen, 2010), which is in line with that Shaw (2005) has referred to as "working live". In earlier work, Larsen (2005) reflects that such processes will be perceived as risky, because when we get into highly spontaneous conversations, we cannot know the outcome and what it will mean for the individuals involved.

Getting into highly spontaneous conversations means that we have to loosen control. Just as we can attempt to control conversation we can also offer responses that serve as invitations to loosen control, and humans find themselves invited to spontaneity when we are part of an interaction that disturbs our assumed view of the other (Larsen, 2005). There is an important role for the consultant, convener or manager in *creating, proposing and accepting such invitations*. In this paper, we particularly explore how such invitations can be seen as enabling local interactions in processes of innovation.

By using improvisational theatre as a way to study the role of improvisation in a particular case, we inductively derive some of the elements that hamper or facilitate a process of change within the context of an actual organization's innovation process. We use these situations (or narratives) as a way to illustrate how improvisation in general and improvisational theatre in

particular reveal and promote processes of interaction between people in a context characterized by uncertainty about the different objectives and intentions.

RESEARCH APPROACH
This exploratory study is a reflection of three interactions with three large Danish companies, in which one of the authors was a consultant/researcher. As such, we reflect on our own experience (cf. Stacey & Griffin, 2005). We are influenced by the principles of the qualitative case study approach (Eisenhardt, 1989; Yin, 2003), with data that essentially consist of participant observation, videos and narratives, with an element of action research. We investigate three separate cases (each entailing a particular meeting in which improvisation was used to invite to change). Using different cases enables us to reflect on particularities that can illuminate strong themes that, even if they play out differently, still are important to recognize. In the analysis of the cases, we attempted to identify categories of findings from within the cases, while comparing the finding across cases as an analytic technique. The construction of categories can be seen as an iterative process that establishes common meaning across multiple observations (Locke, 2001).

The interactions with the companies are part of a decade of experience working with improvised theatre as a consultancy method in processes of organizational change (Larsen, 2011, 2005; Friis, 2005). On the basis of Johnstone's work with improvised theatre and Boal's work with forum theatre, a particular way of working with improvised theatre has been developed in which the conceptual understanding of complex responsive processes of relating is seen as key in understanding the interaction. Others have described work with improvised theatre and forum theatre in companies but from a different perspective (e.g., Vera & Crossan, 2004, 2005; Meisiek, 2002, 2004; Nissley et al., 2004; Clark & Mangham, 2004).

Below, we first present a narrative from one of the experiences, followed by a discussion of the results, in which we also engage the two other experiences.

THE EXPERIENCE FROM A MEETING
The following is a personal reflection from one of the authors on an interaction with a company.

> We are sitting at a meeting with four people from a developmental department at a larger Danish company. The people in the group we are visiting are supposed to come up with radical and yet realistic ideas for the future. I am there together with my former colleague through many years, an experienced actor and consultant and a present colleague from the university, a PhD student that also has worked as organizational consultant. From the company there are four people, of which one is our contact.

THE BACKGROUND

The story up to this is that our contact had asked our research group for a presentation about innovation. Instead of just accepting this invitation we had a conversation, and here we together developed the idea to meet with some of the people in the department for an unstructured conversation about the dilemmas and challenges they saw in their work. All in all they were 15 people, with a responsibility to think out of the box. In the conversation our contact explained that the challenge they faced in the group was how to deal with the iterative process of ideation in such a way that the ideas turned that into a concrete project formulation.

ESTABLISHMENT OF A NON-INVENTIVE PATTERN OF CONVERSATION

After the short welcome from our contact one of the other guys takes over. He does the kind of formal presentation that might supply us with necessary insight, how many people they are, what they are supposed to work with in the organization, their vision and how they are organized. He has not presented himself, but he is obviously the manager of the group. Having worked as a consultant for many years I can easily imagine how the pattern of meeting will become. Already now it has taken the kind of formal route, where the manager takes over, and explains what he think might be necessary knowledge for us to have. His employees are patiently waiting for his presentation that obviously is very well known stuff for them, but from the look in their faces I anticipate that this is not different from what they would expect. I am very much aware that if this meeting should take a turn, we need another *quality* of the conversation, not that what is going on might not be important for us to know, as a kind of background knowledge, but we need get beyond the pattern of one individual informing us about something that is well known to his own people.

As the manager continues, we ask a few questions. He explains that around 90 % of their ideas they get are killed at internal meetings they have every 6th or 7th week. It is not in any sense a problem for them to get new ideas, but they have to prioritize, from a perspective of how much they can cope with, but also from the perspective of what might be possible to come through with in the organization. The ideas that survive their own judgment go through an evaluation with managers at a higher level in the organization, not with a high success rate.

THE CONVERSATION CHANGES

So I am looking for what I could do to create invitations for an interruption of the taken for granted pattern in the conversational interaction, but I sense that this will not necessarily be easy. The manager has until now kept a formal tone, talking from a kind of objective outsider perspective that only invite to questions within the same range, and everybody else seem to expect this. However, at the same time I sense a kind of frustration, in hindsight it is difficult to put a word on what this is exactly, and it might even be a rationalization, but I think that it crossed my mind that they might not get much recognition from the rest of the organization, although I am not even sure that this was formed in my head as a clear thought. At the same time as I am listening and noticing what is going on in the room a question is formed in my ongoing internal conversation.

I ask how it comes that they have survived internally as a unit for several years. A short silence, the local people take a look at each other and respond with different answers. One says that they have a good relation to people out there, they have not forgotten "real life production", from where some of them were employed before the unit was formed. Another respond that the company is going very well at the moment, and consequently there is not the same focus on restructuring for the sake of saving money as there have been in other times. The manager responds that they are part of a flat organization, and that he frequently has conversations with the top management.

This started a conversation about the way they work. Usually they would keep their work "below the radar", not involving anybody in their ideas before they think that they have a good case. Then they would typically prepare an impressive presentation at a yearly internal technology fair, but usually that did not create much attention. They agreed that the only arguments that actually worked towards the rest of the organization was when money could be saved, in the production or by choosing cheaper materials, and even then they often found it hard to come through with their ideas. Who have the stronger voice in this kind of decisions? "Marketing". They referred to the fact that the company had been in serious troubles a few years before the global financial crisis, of this reason there is a huge focus on the day to day sales. At that time there were not enough sales, and the fortune earned years back was hugely diminished. The response to the troubles had been to go back to basics, and focus on what could be sold. So sales and marketing was almost completely defining what could be developed and what could not. Now they did not experience any pull from marketing, only a constant push from their side that only rarely were taken up from marketing. It was different with the designers, the relations were much better, but in the end it was the marketing people that had the say in the decisions.

THEATRE IMPROVISATION

The energy in the room has changed slightly, and all the local people had taken the word in the latter conversation. We were at a point in the conversation that might turn into a kind of opening. I looked at my former colleague, the one who is actor by training. "What if we were two guys from marketing meeting at the coffee machine", I said. "What would we say about these guys?". So we improvised this conversation.

"They are useless, thinking so long ahead".

"They are dangerous because they put so many ideas in the head of designers, and we cannot stick to the decision of only using our exiting materials."

What we said to each other was obviously something we made up in the moment. We had not met the marketing people. This improvised situation took only a few minutes, but my present colleague, was afterwards struck about the impact this had on the conversation, which changed quite a lot. More stories were told about the marketing people thinking far too short-sighted, a quite revolutionary idea about choosing a different material for the product had been rejected although it had a strong potential, and in other situations simple substitutions of substances had been chosen instead of more thorough revision of the work processes behind.

The manager came to the conclusion that we should try to create a meeting between the people from this department and some people from marketing.

Another idea came to the surface: what if they could create our own little company with its own sales channels, not outside the company, but within the brand, just presented as something different, a kind of Channel 2. A comparison was made to the Danish television, which beside the main channel also broadcast a Channel 2 with niche programs, obviously with a much smaller audience. What if we could do something similar in their department?

EMERGING THEMES

How can we understand what happened at this meeting? From the insight of complexity science we have come to understand that there is not necessarily any direct response logic in which we can possibly trace all causes. Or put in a different way, even if we can create an explanation of why certain incidents happened, we cannot necessarily use this to predict what *will* happen. The well-known butterfly effect, that the flap of a butterfly in Brazil can cause a tornado in Texas (Lorenz, 1963), means that even the slightest change in a situation at certain points can create dramatic changes. Complexity science refers to such moments in time as *bifurcation points* at which several directions are paradoxically taken at the same time. So the wording used in the narrative earlier, calling such situations for *openings* is actually a bit misleading; it would be more precise to talk about it as a movement that is going on at the same time as it is business as usual. And this might just be the surface of a much more complex picture as it is highly possible that the themes had been touched before. Marketing seen as gatekeeper seems to be well known, and ideas of trying to involve them more has probably been proposed before. Also the idea of a second sales channel might have been mentioned before. And a kind of "nothing is going to change" is obviously also recognizable in the reaction.

It would probably be more precise to say that several themes, some of which might contradict each other, are present. What can be recognized is not necessarily the emergence of completely new themes but rather a shift in the meaning of the different themes. So the "opening" could also be called a *shift in attention in the ongoing conversation*. So how can we understand the nature of such a shift? Seen in that perspective, we could say that the uneasiness hardly recognized early in the meeting is a very subtle gesture, and probably unconscious. But it serves as an invitation for the consultant to raise a question that also became a slightly stronger invitation. The response from the local to that question then served as an invitation to propose the little improvised theatre play that created a stronger shift in the themes that afterwards is recognized and remembered as a significant moment. It is worth noticing that in any of these moments, we cannot see this interaction as solely induced by one individual while it is not one single step either. We had intentions by bringing a trained actor, but none of us had planned how to take advantage of

that, and at the same time, ten years of experience with improvised theatre between the two consultants obviously played a role. Such kinds of mutual experience between two individuals can be seen as yet another theme in the ongoing conversations that play into the interaction between us all. So, even such a small moment is highly complex interweaving a variety of different experiences that influence the actions taken together.

LONG-TERM IMPACT

We cannot know whether this conversation in hindsight will be remembered as particularly significant. But from another consultancy job we have seen that this can be the case. At a consultancy job in an airline company, the consultants experienced a vicious but rigid pattern in the relations between management and staff. Some of the work has been outsourced, which was generally seen as a wrong decision among employees; at the same time almost all critique from employees was anticipated from the management solely as a critique of the outsourcing. So almost all conversation had died out. In the consultancy work all the employees were gathered. As a part of the work three actors played a scene about an employee complaining about the bad quality of the now outsourced work. On a suggestion from employees in the audience the actor on stage asked another actor playing the manager, and we saw the actor that played the manager rejecting the complaint. At this point a remarkable shift came about. In the midst of this work with this theatre scene, the top manager who had been silent until now suddenly uttered that he obviously had been neglecting a well-grounded critique from some of the staff members. Following this moment, we played at the stage what he would like the actor manager to respond with this new insight. A majority of employees reacted with an emerging openness towards understanding the strategy that the management was trying to explain, and started silencing those voices that still argued about the outsourcing as the root of all problems. Three years later the response from the organization was that this meeting had become the beginning of a stronger collaboration in the department, and it was recognized as such several years later (Larsen, 2011).

However, even if this event was afterwards recognized as a significant moment of change, this can only be a little part of the story. Something had been going on before, that served as an invitation to the steps taken. What happened afterwards at the event was followed up at one improvised interaction after the other, effectively establishing another pattern of the interaction. All of these moments had been improvised, and over time more trust emerged in a growing recognition of the perspective of the other, but also this happened in the ongoing conversation.

One can argue that what was experienced in the first narrative is just one small interaction in a company, and that such interactions go on all the time. With several

thousand employees, we cannot trace all significance of such small situations. Therefore, if we want to understand how innovation happens, we need to focus on something different, something more tangible and traceable. But what if what is actually innovated and what is not innovated actually takes place in situations like this? One conversation is followed by another, and the sum of all these local interactions might create a quite significant change, although none of them is recognized as significant.

INNOVATION AS NEW PATTERNING OF CONVERSATION

After the meeting described in the first narrative, one of the participants, three weeks later, said at another meeting, referring to the conversation in the first narrative:

> If I stay [in this company] it is because it is so much fun doing what I do, but if I stop it is because it is so frustrating not to be able to push it all the way through. If you are the type of person that likes to do stuff and actually like to get things out, to carry things through and say I was there and actually made an impact, then eventually it is going to get frustrating. And that is why I say that we need a sales channel.

Apparently the theme about a second sales channel has grown a bit stronger. This person is recognized as the one in the company with the strongest insight in the materials they are and could be using in the future. How can we see the ongoing conversations as part of innovation?

Let us refer to a case from third company in which one of the authors was a consultant with the use of improvised theatre. The company had a strong tradition of involving their users, in this case patients, in the process of innovating new products, and the contact to the consultant came from the manager of these people. At a theatre session we brought together the staff that regularly had these conversations ("user contacts") with the patients, marketing people and project managers and engineers from other parts of R&D. In the work with theatre three actors played several conversations that were seen as very realistic by the audience, and the participants contributed to a mutual exploration. The actors played a scene where the "user contact" came back with what he saw as a groundbreaking idea. However, it was very difficult to create interest within the organization. First of all the marketing people had to take ownership, which usually meant that they should be able to see the potential, not for the patient but for hospitals, which was seen at the first market. Secondly, the idea would usually be stopped by the engineers from R&D, if the technical challenges was beyond what they assumed they could solve within a few months, even if it had a great market potential. So the "user contacts" had several ideas they found groundbreaking but never came through.

We then used the theatre to explore what might have happened in the successful product developments. It became clear that several of the influential internal stakeholders had to be able to put their fingerprint on the idea. And it also became clear that the "user contacts" were not very keen on having their ideas transformed. In some of the successful inventions a project manager with a good reputation had taken up the idea and sold it to marketing, R&D and management. However, it turned out that the ideas usually were transformed quite radically in these ongoing negotiations, sometimes to a degree where the original idea was almost not recognizable.

In the work it became clear that, although it was usually seen as the work of the project manager, the interesting result actually was emerging in the ongoing negotiations where each of the stakeholders in different ways has an influential role. What the successful project manager did was paradoxically at same time to insist on the significance of the project and allow it to be changed by the other stakeholders. In the theatre work it also became clear that there was not much credit to the "user contacts". If we return to the first case, it is obvious that our material expert easily can end up in the same role as the user contacts in the third case.

He might continue to argue the case of a second sales channel, in informal meetings; below the radar and at some point in a more formal setting. Whether such an innovation is going to happen depends on the response he will get and whether this turns into conversations with the particular quality that enables both parties to take ownership. Paradoxically, he will have to loosen the control of his idea, and allow other to influence it, if they should take ownership. In this sense we can come to understand processes of innovation, not as only the effort to sell an already made idea, but also to allow oneself to be influenced by others, to loosen control. Whether he then continues to work in the company might also be linked to the quality of the improvised conversations he is part of.

IMPACT FOR BEING A CONSULTANT OR MANAGER

With reference to Johnstone (1981) and Mead (1934, [1932] 2002), we can understand improvisation and the spontaneity involved as an activity of relating without being in control of the situation, and not on top of one's own participation. One acts before being able to say why, and in the acting also the gesturing individual makes sense of the saying. This does not mean that we react from pure impulse; in the situation we draw on our experience, but without being on top of it. This is in line with Mead's understanding of the present moment. As the only moments we actually can act, not just points as a timeline, but moments where we in our action makes sense of the past experience and our intentions for the future, and at the same time are influenced by what we experience, which paradoxically at the same time

influence how we understand the past and our intentions for the future.

In the present moment we are reacting spontaneously to the tiniest bodily gestures of other participants. One cannot hold back a certain bodily reaction (such as a smile or a frown); another responds and this in turn calls forth further response. A kind of bodily resonance is going on, and we notice that this iteration happens at such lightning speed that one reacts independently of being able to express the response in words. This is in line with Stacey's views on the sharing of knowledge when, referring to Stern (1985) and Damasio (2000), he concludes: "Instead of thinking about sharing something going on in the brain, one might think of bodies resonating with each other, yielding empathic understanding" (Stacey, 2003: 118).

We can then understand spontaneity as making sense together, paradoxically staying with the situation by acting surprisingly into it, searching for mutual recognition. Spontaneity is manifested between people not only as activities involving talk and language, but also as bodily reactions that are equally part of conversation. Spontaneity is a social activity in which, in the emergence of patterning, one surprises oneself as well as the other.

Implications for managers and consultants who work with processes of change in innovation include provoking and reacting to the nature and actions of other stakeholders in the process and to the relations and understanding that emerge in the interaction. It is therefore important to both recognize one's own knowledge and experience but also to take the perspective of other involved stakeholders. It is moreover important to interpret and thereby better understand the detailed processes, also those that may be beyond what is directly visible. The richness of the conversations needs to be assessed by listening "between the lines" and relying on one's senses. Moreover, informal conversations are vital for us to understand what is going on, thus creating the need for practicing informal relations. The role of power relations also plays a particular role (cf. Thomas et al., 2011), as the change of power relations usually feels risky because changing the mutual dependency involves a change in the way we see each other. The choice to be vulnerable to the decisions and actions of another party also implies a certain degree of trust to deal with the uncertainty within the relationship and overall activities (cf. McEvily, 2011).

CONCLUSION
What goes on in local interactions changes what is "known" organizationally, and this emerging of meaning is a social process that cannot be seen as just uncovering what is already there, but is carrying new insights and new actions. Emergence of small and incremental changes can easily be interpreted as "business as usual", and the possible change may

therefore be overlooked. In earlier work such moments have been called "openings" (Larsen 2005), which are the paradoxical moments that at the same time is seen as potential change and continuation of more of the same. Shaw has used the term "small beginnings" (Shaw 2002). However none of these ways of phrasing it can be taken literally, because what is going on is slight shifts in attention in the ongoing conversation.

So what we see as most important for the manager or consultant is an ability to participate in the ongoing improvisation, to participate in creating strong invitations and also in running the risk to accept invitations. We also find it important as manager or consultant to be able to recognize what is going on in such daily interactions, and also to recognize that in hindsight we can recognize some moments as more important than others. These moments are crucial if one wants to understand how change, novelty, innovation and also knowledge emerge. Change happens in local processes of inclusion and exclusion in which the power relations change, usually in small and incremental shifts. Drawing on the sociologist Norbert Elias (1998), we can describe power as mutual interdependency in which we recognize each other and also ourselves. However, the power relations are not static; we create and recreate these interdependencies in processes of ongoing spontaneous interaction. What is critical to whether or not change happens is how much spontaneity we find ourselves risking in the face of power differentials (Larsen, 2005). It is felt risky to participate in spontaneous processes because one's identity is at stake and will be negotiated in the ongoing processes of including and excluding each other.

Ongoing processes of innovation imply people relating to each other to create mutual understanding and are as such distributed within and across organizations (Bogers & Lhuillery, 2011; Ettlie & Elsenbach, 2007; Hillebrand & Biemans, 2004). If we see such processes as part of building an organization's capabilities, used to react to changes in the environment (Teece et al., 1997), the openings or bifurcation points provide opportunities for such reactions. These changes might accordingly not occur on a (seemingly) continuous basis but rather be presented as windows of opportunities (cf. Tyre & Orlikowski, 1994). Moreover, these ongoing but discontinuous processes of change are a collective effort that takes places in the improvised interaction between the people when they relate and mutually influence each other within a context of uncertainty (Larsen & Friis, 2005; Larsen, 2005; Vera & Crossan, 2005). This process is difficult to predict and also relies on the one hand on the informal relations and on the other hand on the negotiated power relations (Thomas et al., 2011).

Based on our findings, we also believe that improvisation in particular and a complexity perspective in general can contribute to the understanding of more general conceptualizations of innovation and organizations. While some of our findings can be linked to the local interactions in which organizational

capabilities are formed, they also shed light on how routines are build and can be developed or broken down (cf. Becker, 2004; Feldman, 2000; Lewin et al., 2010). Our paper thereby moreover not only unravels the micro-level mechanisms of the ongoing interactions and actions in the innovation process but also outlines how managers can (or cannot) control processes of change in innovation in their efforts to create a climate for innovation (Ahmed, 1998; James et al., 2001; Scott & Bruce, 1994) when they are in charge but not in control (Stacey, 2001; Streatfield, 2001).

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