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Adapting to Complexities in Dialogue

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"The language of change, a change of language."

Abstract

The world is getting a VUCA place. A world that is more volatile, uncertain, complex and ambiguous. Changing conditions can be seen at a global level, on the level of societies and organizations but also at a micro level of people. Dealing with differences requires awareness about our own world views, and an open mind to understand the viewpoint of others. For interaction to be productive, participants need to recognize the different voices that come into play. This 'social complexity' is a underlying aspect relevant for understanding how to cope with VUCA situations. The aim of this chapter is to describe the conversational processes that take place during interactions between different professionals in organizations. Applying the 'ladder of complexity' and discourse analysis in three cases reveal that different 'voices' can be distinguished in the process of organizational change. We promote incorporating sociolinguistics into the field of organizational change. Section 1 introduces the 'playground' we live in followed by different paradigms about communicating and change management. Section 3 introduces the 'ladder of complexity' aligning social complexity and dialogue. Section 4 describes 3 cases using discourse analysis to understand the interaction in conversations. Section 5 draws conclusions and give directions for future research.

Keywords: organizational change, dialogic organization development, open innovation, linguistics, discourse analysis, ethnography



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1. Introduction

The nature of our work has changed, reflecting major shifts in technology as well as an ever-shortening lifecycle of ideas, products, and businesses. The complexity of new problems on a global scale requires the work of teams with diverse expertise to solve them (Andrews in Alessi and Jacobs [1]). In other words, the world is getting a VUCA place. The VUCA acronym was first used by the U.S. Army War College in the 1990s. In 2012, Taleb [2] published his book "Antifragile: Things That Gain From Disorder" in which he describes that "some things benefit from shocks; they thrive and grow when exposed to volatility, randomness, disorder, and stressors and love adventure, risk, and uncertainty" [2, p. 17]. In many situations where people are living and working together we can also see and feel the tensions that come along with this so called "VUCA world" arising from differences in world views and perspectives, from the dichotomy in our thinking and talking and from language in particular. We call something good or bad, true or false, it leads to profit or loss, it is mechanic or organic, it can be planned or is emergent, etc. We look for the best way to change things effectively, to design the best supply chain, to develop the best communication process, and so on. These assumptions are ingrained in our daily life, and questioning them is often looked upon with awkwardness and suspicion. However, when it comes to VUCA situations, we think it is not about finding "the truth" out there anymore, but about making tensions that come along with it productive in our daily communication.

It goes without saying that a VUCA world, society or (inter)organizational, often interdisciplinary, setting requires that everyone needs to adopt new ways of working, other communication and negotiation styles. From here on, we will focus on the organizational level, but it is understood that we also see similar grounds for developments in societies over the world. In order to solve complex (organizational) problems multidisciplinary, multiple players or stakeholders need to communicate intensively bridging differences related to different paradigms, worldviews, professional background, and typical language use (i.e., jargon). Working together can no longer be done from the comfortable space of one's own desk with people sharing the same local context, same professional perspective (i.e., engineering, human resource management, marketing, etc.) with inherently quite same implicit assumptions. On the top of this, workplaces are more flexible and globally dispersed (i.e., multinationals on a global scale with business unites and virtual (project)teams, different production plants in a country). Furthermore, our workplaces have become divers and are not always related to the traditional office spaces (i.e., hotels, canteens, restaurants, and even city parks). People meet physically but more and more virtually (Andrews in Ref. [1]). This "new way of working" adds on the top of professional differences another complicating factor of losing face-to-face contact. Online conferences replace the meeting rooms; email, Twitter, and Whatsapp messages replace or al communication and everybody is connected via social media. However, it can be questioned if people are really connected by using these kinds of media to communicate.

This new way of working is mostly related to organizational change (i.e., technological/social innovation, reorganizations, implementing new systems, procedures and organizing structures, or producing new products for customer demands). Within the field of change management and organization theories, "communication" is seen as an important factor to realize organizational change successfully. However, "communication" is also a broadly, nonuniform defined container concept. It is also well known that many change projects are not considered very successful [3]. Despite it is acknowledged that "communication" plays an important role and change is becoming increasingly complex, little attention is given to sociolinguistics within the field of change management and organization theories. We consider this as a promising research area that might increase our understanding about interaction dynamics between participants in change processes and organizing. To put it more strongly, we understand organizing as "a conversational process in which people together construct an organizational reality out of a variety of different positions" [4]. We therefore focus on the role of conversations [5] and on dialogues [6] in daily work and propose that different degrees of complexity are in fact different levels of complexity of conversations or dialogues. Conversations can be quite easy and smooth such as in simple situations but are not simple in VUCA situations and produce more tension when the level of complexity increases. Next, we propose the use of the "ladder of complexity" as a framework for understanding the level of complexity and increasingly complex group dynamics that works along with social interactions. With this "ladder," we discern seven levels of dialogue which imply different skills of participation of change subjects (e.g., service engineers) and different roles and skills of change agents (e.g., managers and consultants) to facilitate increasing difficult levels of complexity in dialogue. We will illustrate the use of the "ladder of complexity" [4] by reflecting on the typical language usage of different professionals interacting in conversations that we studied in three different cases as an empirical evidence and for proofing, the "ladder" could be helpful. Within these cases, we use multiple discourse methods to analyze the interactional practice in organizing work during organizational change processes. We will show that the three case situations have in common that they allow for the complexity and nuanced reality to exist. However, we also found differences in the way participants cope with the existing complexity in their conversations. We will focus on the richness of the cases, found in the context of organizational change and (open) innovation, and acknowledge their complexity as an essential ingredient of a fruitful analysis. Based on our research, we conclude with some key principles that can be helpful to increase the level of generative and productive dialogues and put a dialogical mind set into practice. In the next section, we describe extremes in thinking about communicating and change management, also known as paradigms.

2. Paradigms in communication and change management

Communication in general is a kind of container concept and has many different definitions. Most people know that communication is important in organizing and in realizing effective change. It is often heard that "communication" is the problem, it should be done better, paid better attention to, or should done in a different way. However, communicating and language, in general, are often so obvious and implicitly entwined with our thinking and talking that we do not even realize what the impact is of our use of language on our thinking, our action, and on others. Most of the times, communication, as an overall container concept, oversimplifies the complexity of the interaction between people and the impact of language. Daily conversations are for example saturated with concepts and categories from business strategy and organization theory. We use rather general terms like "organizational culture," "closing the gap" between "the present" and "the future" and "the competences" needed to attain the desired goals. This section will focus on language and communication and their role in change management by describing two contrasting ways of thinking.

2.1. The representational and conversational paradigms

Within language literature, two positions can be discerned regarding the role of language in relation to the outside world; the representational school and the conversational school. We take these two schools as examples because they show different views about how language and the world around us are connected. The representational school assumes that in our language usage of all words, concepts, or phenomena refers to a fixed and well-known meaning or content [7, p. 46]. On the other hand, we have the conversational school that explicitly does not assume a fixed relation between the "sign" and the "signified." In this paradigm, the social character of language is acknowledged and that meaning and sense-making or sense-giving comes from the relevance assigned by the participants, suitable for the moment in time and contextual situation [8].

Both views can be put into models that obviously simplify the communication and interaction dynamics. First, the well-known sender-receiver model developed by Shannon and Waever [9] in the 1950s. This model fits quite well with the representational school and is still used when explained how communication works. The other model is based on Jakobson in Sebeok [10] to address different aspects that play a role during interaction processes, such as setting, topic, contact/relation, code, and the objective of the conversation. Ulijn and Strother [11] have elaborated this model and Pieterse [7] added psychological aspects, such as filters, mental models, and views on concepts like time and space. Based on these aspects, Pieterse [7] introduces a conversational communication model (**Figure 1**) which might display the complexity of communication during interaction processes. **Figure 1** shows that communication is a complicated process when all aspects are taken into account. However, we do not focus on the invisible individual psychological aspects. We can assume that psychological motives and thought processes play a role during interactions, but the only visible reality of communication, we have as subject of analyzing is the interaction between participants, the conversational turns expressed, and the typical language used.

In line with the conversational school, we consider communication as an interactional process where words only become (un-)useful in conversations where people construct meaningful pictures of reality together. What Wittgenstein [12] has called a language game, useful for themselves but not for others. As Shaw [5] points out it is this conversational life of organizations in which people constantly sustain and change the possibilities for going on together. Language use is not something that happens before action, it is already action itself. In addition, what seems like "just talking" will eventually change organizational life.

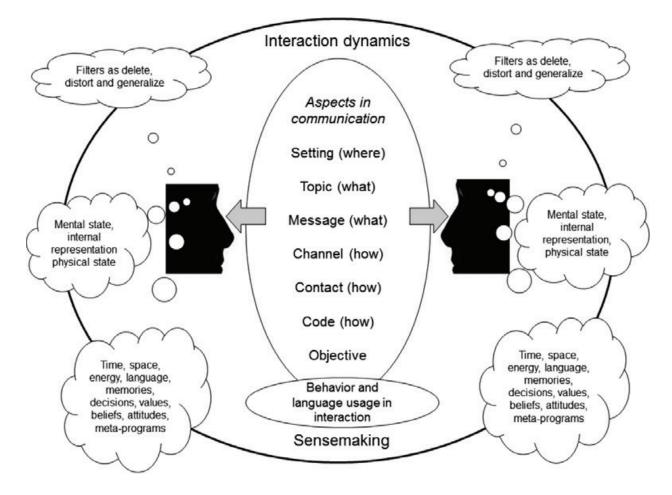


Figure 1. The conversational communication model (adapted from Ref. [7]).

Nevertheless, we think that both the representational and conversational schools have their own use. We do not choose one school of thought or paradigm as better or more applicable above the other. What we think is important to acknowledge that both perspectives exist (amongst others), and we need to find ways to cope during our daily interactions with possible tensions that arise between the representational and conversational school.

2.2. The planned and emergent change paradigms

Because we are describing interaction processes related to organizational change processes, it is good to describe two ways of thinking within the field of change management. First, the planned change approach and second the emergent change. The planned change approach is often seen as a standardized process with a focus on an organizational problem, top-down driven by top management in order to realize a solution and solve the problem (Weick in Beer and Nohria [3]). Bennis et al. [13] mention that planned change is a set of assumptions on how change is created, implemented, evaluated, and maintained. Planned change is "something that can be stopped or started at will" [14, p. 65].

However, starting this chapter with the notion that we are living in a VUCA world, "there is an increasing attention for the idea that organizational change is rather an emergent and

open-ended process than a set of interventions that can be thought of and planned upfront without unforeseen actions" [7, p. 37]. Weick and Quinn [15] consider change as a continuous process of modifications in daily work processes in systems, structures, and social practices that are formed and re-formed by people. Therefore, emergent change just happens one can say. No, we do not think so. Of course, there are visions, strategies, and impulses from outside and inside the organization. We see that things are continuously changing at a higher pace and with more impact on society, organizations, and people. Sometimes these changes are planned, but most of the time unforeseen "side effects" arise, which were not planned or could not be foreseen. In that sense, we think emergent change is something we have to cope with. Within emergent change, there is a need for continuous sensitivity of all organizational members to local contexts. In these situations, participants cooperate in real-time experimentation, are learning together, make sense of what they see and hear, explore and exploit available (tacit) knowledge, and get feedback from results, which leads to new actions (Weick in Beer and Nohria [3]). It seems to us that a VUCA world somehow reflects parallels with emergent change.

Nevertheless, also in a VUCA world, both the planned and emergent change paradigms are useful "lenses," depending on the situation. While building a plane, we rather like the engineers to take a planned change approach, although emergent change can happen too within certain limits. At the same time, an engineer working for the aircraft manufacturer might find it difficult to keep this line of reasoning and the emergent change approach could be more helpful. In addition, here, we do not find one approach better or more applicable than the other. One of the central notions in this chapter is that within a unique, complex, dynamic emergent change process with multiple participants and perspectives on communication and change approaches and with a diverse group of people, it is necessary to make the possible tensions productive through a generative dialogue.

Participants involved in emergent change processes have the task of linking together the object of change, the context of the change, and the different mental models of those involved [4]. Managing emergent change requires a joint effort of all participants to collaborate and co-create. Compared to planned change, the emergent change approach is one of the ongoing evolutions. This ongoing interaction between participants about the goals and object of change, the (changing) context of the change and understanding their own mental models requires a dialogue instead of discussions and consensus. The aim of the dialogue is at generating multiple views and rich approaches that are valuable for the situation at that moment and the overall change process.

Various sources of knowledge play a role in this: explicit, implicit, embrained, encoded, embedded, embodied, tacit, generalized, and actual knowledge [16], Lam in Boonstra [17], and [18]. Limited mental or emotional frames, however, can hinder the co-creative and generative process seriously. To obtain rich pictures, people in a dialogue need to questions each other's a-priori notions and "reach out in the not-yet-known" (Chia in Tsoukas and Kundsen [19]). Doing this requires to suspend our views, to listen in an open manner, and letting new information in to revise or (re-)adjust our beliefs and opinions. For the (dialogical) self, the deconstruction of speech is not different from the deconstruction of the self. Moreover, often this is

not a small thing. This is, where resistance and ethics come in exactly at the bifurcation points, where a dialogue can turn into a degenerative or into more generative ones [20]. So, complexity is not only related to freedom and innovation, but also with fear for the unknown and destructions of the narrative self. The dialogue ladder can be used to understand this highly subtle process a little better. The next section describes in more detail what it means to have a generative and productive dialogue in which participants together work hard to be productive despite tensions and conflict.

3. The generative dialogue and productive tension

In our perspective, organizational change is in fact a discursive process. This is a so-called social constructionist perspective [21], in which all information is already interpreted and the language used strongly influences our perceptions. For instance, if management is talking about increasing the customer satisfaction score or the QA Officer wants to decrease the failure rate of products, these can be seen as objective representations (the representational school) or intersubjective constructions of a temporary social reality [22], which reflects the conversational school.

The practical consequence of these intersubjective constructions is based on differences. Differences between point of views, perspectives, professional discourses, and opinions are therefore a (main) source for sense making. Sense making and sense giving are always co-created in interaction and in relationships between subjects. We construct our problem definitions, our views on "the" context and even our own role and identity as related to these subjects. Conversations in organizational life about differences do not only contain cognitive information, but also emotional and bodily experiences and deeply ingrained scripts or mental models [22]. Dealing with complexity of VUCA situations makes this highly relational or social side of complexity to simplicity but to gain deeper insight by dealing with interesting and compelling differences. The notion of the complexity is therefore not (only) about a match between the amount of variety in the dialogue, and the complexity of a task in the world outside. For this, we would suggest an independent reality "out there." The complexity *is* the relation. It is the experience of differences *as* relation in the in-between.

Complexity (in Latin "plexus") means braided or entwined. The generative potential of a dialogue is directly linked to the capacity of the participants to be open toward differences between the participants. When participants in a generative dialogue are able to "tolerate" these differences, even if they disagree, to appreciate differences in-between and together start inquiring what is at stake for everyone, the group as a group becomes more alive and connected. This force in-between is what Hannah Arendt [23] refers to as *dunamis*. It implies a power or aliveness that comes from within. This connectedness opens the possibility for allowing even more complexity into the in-between of the dialogue. This kind of interaction only works when the participants can soften their solidifications (i.e., mental models, ego, defensive routines). It requires all participants to be open toward relevant differences and also

to investigate their own opinions and assumptions. This kind of dialoguing, however, will take time and often requires hard work from every participant. As a pay-off, the conversation will make a shift from a more "distance talk" about "objects" outside our self (i.e., "the" system, that "department," "those managers") toward a vibrant conversation in-between people in the here-and-now (i.e., my role in this conversation, my framing, my feelings, my behavior). Contributing to a generative dialogue is *not* about bluntly saying what comes into one's mind. Relating as a person, as a subject to another subject (instead to a distant object) is a matter of thinking aloud what you think would be *good* to do in a certain situation. This can be called the ethical aspect of everyday dialogue: it is attuned to the good. Not, for instance, devaluating the poor quality of a practice from a disconnected outsider's perspective but personally contributing to change the field in a direction that is meaningful and valuable for this practice. "Be the change," as Gandhi has put it. This manifest itself as a continuous process of co-creation and co-evolution: making space in dialogue, engaging positively, and being touched and transformed by the emerging quality

Bushe and Marshak [24] give an overview of what they call diagnostic organization development versus dialogical organization development (OD). **Table 1** (adapted from Ref. [24]) shows the differences as two extremes on a continuum, but of course, there are positions in-between. We assume that to become productive in a dialogue, participants should be able to switch from a diagnostic OD approach toward a dialogical OD approach.

Respect, open regard, and safe boundaries are important in dialoguing. Paying attention to, not turning away, not interrupting, discouraging long monologues, having the right to speak regardless of rank or gender, not resorting to the "act of blame" can keep a conversation going on [22]. These more social factors require a different psychological mind-set of the participants while dialoguing. Mostly meetings follow a strict agenda and timetable, work with notes, and have a chairman. Participation in these meetings is based on expertise, role, or function in the organization. We also know that not everything can be said in the meeting, but often more outside the formal meeting. It is questionable, if people really listen or have they already prepared an answer to your story without even trying to rephrase what you said. This common way of meeting is part of a socializing process and formed our way of doing things around here. In a changing organization, the dynamics and complexity, as described above, are quite different. These emergent, new, and unknown situations require to act differently. However, instead of adjusting our standard way of working, mostly we stick to habits and behavior that we are familiar with. It worked then, so it will work now. Dialoguing seems easy, but it requires hard work and a completely different socio-psychological mind-set (i.e., openness, safety, listing, time). Van den Nieuwenhof [22] found three (increasing) levels of negation: the negation of different perspectives (other frames of thought, other experiences), negation of the person (as not interesting, not valuable), and devaluation of the relation (I do not want anything to do with him). Affirmation, as the opposite of negation, is to recognize the worthy essence within the other. To affirm is to grant worth to or honor the validity of the other's subjectivity. This is not to say that we have to agree with the others, as that would be a duplication of stances and a loss of difference. To affirm is to grant worth to the subjectivity of the other and to the difference at the same time. Making space for the difference is making space for the other and for the relation; letting complexity come into the relation.

	Diagnostic OD	Dialogical OD Interpretive approaches, social constructionism, critical, and postmodern philosophy			
Influenced by	Classical science, positivism, and modernist philosophy				
Dominant organizational construct	Organizations are like living systems	Organizations are meaning making systems			
Ontology and epistemology	 Reality is an objective fact There is single reality Truth is transcendent and discoverable Reality can be discovered using rational and analytic processes 	 Reality is socially constructed There are multiple realities Truth is immanent and emerges from the situation Reality is negotiated and may involve power and political processes 			
Constructs of change	 Usually Teleological Collecting and applying data using objective problem solving methods leads to change Change can be created by planned, and managed Change is episodic, linear, and goal oriented 	 Often dialogical or dialectical Creating containers and processes to produce generative ideas leads to change Change can be encouraged but is mainly self-organizing Change my be continuous and/or cyclical 			
Focus of change	• Emphasis on changing behavior and what people do	• Emphasis on changing mindsets and what people think			

Table 1. Contrasting diagnostic and dialogical organization development [6].

Change processes in organizations are often not very clear and literature regarding change management indicates roughly one third of the change projects to be successful and two thirds a failure [3, 25]. The organization and change context, the organizational culture, and differences between professional cultures make change projects a fuzzy and uncertain journey [7]. In order for participants to make sense in these messy change processes, we suggest the dialogue ladder as a "sensitizing device" [26] that can be useful to locate and utilize the differences in use of language and interpretations. As a result of differences, deconstruction of ossified meanings is made possible, and new meanings can arise. But, deconstruction can also be emotionally de-stabling, and fear can be a result. These differences can lead to tensions between people, but it is in these deeper layers of conflict that participants can become productive if they are able to switch from a diagnostic OD approach toward a dialogical OD approach. This does not mean changing the how and what, but changing the way of framing and thinking of participants. The productive tension between different language games in a dialogue may generate richer, more applicable, more context specific, and more valuable approaches [22].

Next, we will briefly describe seven levels of dialogue (**Figure 2**) which all differ on three aspects; first, on the type of relation, second on the concept of time and causality, and third on ethics.

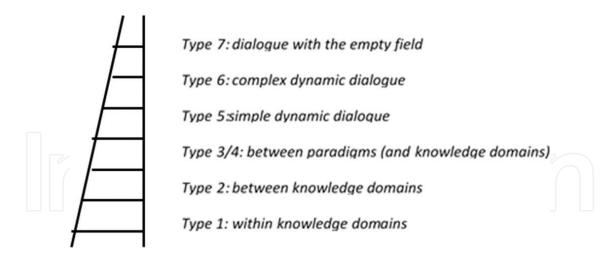


Figure 2. The dialogue ladder.

The levels on the ladder refer to increasing differences in the dialogue. We mention three differences that discern these levels. First, at the lower levels of the dialogical ladder, a speaker frames other people (e.g., the management team), structures (e.g., the sales department), groups (e.g., those service engineers), agreements, and causes as "objects." Hosking in Boonstra [17] calls this a subject-object relation. Organizations are seen and treated as clockworks or as simple organisms like plants with no rationality and will. The second difference is the use of concepts of time and causality. Types 1 and 2 dialogue mostly use concepts like "efficient" and "rationalistic causality" [27]. They refer to natural laws or the rational logic of models and analysis. In addition, there is a strong focus on negative feedback as a dampening force. The higher levels of dialoguing also take positive feedback into account, and consider dynamics as emerging from the system itself. Practically, this implies that within type 1 and 2 dialogues, a lot of correcting and control (negative feedback) can be heard in the conversations. In many organizations, "managing change" can be seen as an ongoing process of correcting and readjusting plans, schedules, agendas, priorities, budgets, resources, attitudes of people, etc. Going from Ist toward Soll is to go from one stable situation to a next stable situation and in-between there is lot of changes that need to be managed. Replacing an old culture with a new one, an old management style for something new, old-fashioned concepts for fashionable ones, etc. In the third place, dialogues can differ in their level of morality. Generative dialogue can be concerned about the right things to do, whatever works, but also about valuable or good things to do [20]. Many conversations between employees and managers or in-between these groups show little recognition and trust. Despite these, organizations still function rather efficient and effective, but this does not mean these organizations doing any good. Organizations should also act ethically and take social responsibility and environmental aspects into account. The higher levels on the dialogical ladder leave the traditional theories behind and arrive at completely new OD practices. Table 2 gives an overview of the dialogue in seven types.

Each level of these dialogues mentioned in **Table 2** has its own complexity and dynamics. The progressive levels of difficulty might increase the generative an innovative potential, but

	Type 1	Type 2	Types 3 and 4	Type 5	Type 6	Type 7
Productive tension	Within one domain	Between knowledge domains within one paradigm	Between knowledge domains, within and between paradigms	Between knowledge domains and between paradigms	Between knowledge domains and between paradigms	Chaotic
Actors	Similar expertise	Similar expertise Differ in expertises, I but similar "attitude" w		Differ in values and worldviews	Difference in values and worldviews lose significance	All not – knowing
Complexity	Little complexity	Comparing apples and oranges	Gap: relational complexity; coordination	Gap: relational complexity; co-production	Number of variables is or becomes too large to manage; co-creation	No clear variables, and no clear "interaction;" co-evolution
Dynamics	Efficient causality	Efficient and/or rational causality	Rational causality	Rational and/or formative causality	Formative and/ or transformative causality	Transformative causality
Dialogue	Practical	Differences are meaningful, but less practical	Confusion about objective and/or subjective dialogue (facts and opinions)	Dialogue starts to make a more personal appeal	Dialogue is exclusively personal and shifts to the here- and-now: emergence and fractal approach	Exclusively here-and- now: fractal approach
Group process	Smooth	Let us keep it simple	Tough, sticky Feeling intrigued	Complexity reduction Tendency to flee Possibility of becoming a "team"	Entering the discomfort zone, (strong) resistance or flow	Entering the discomfort zone, (strong) resistance, feeling bliss
Role of change consultant	Expert (content)	Decision-maker (content)	Mediator	Planned change expert	Process expert, fellow traveler	Change consultant as therapist or philosopher
Table 2. Overview of	the dialogue types [4].	D			D	

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also requires more skilled participants. For instance, being open and straight forward requires "the skill" to not be afraid or fear repercussions from management. Tensions can become productive when we accept them in the first place and primarily do not try to solve the conflicts but rather bring them on the table and openly speak about it together. In organizational change, opinions should collide to make progress and to find eventually the best solutions at that moment in time. We refer here the theories from the complexity sciences [28]. We contribute to this bifurcation point of safety and fear when participants in a dialogue need to speak about conflicting perspectives. This aspect is of course well known in normal life but often under addressed in the complexity sciences, and we think it better explains why some tension in a dialogue is generative and why others are not.

The different types of dialogue are described by Nieuwenhof van den [22]. Central in this "ladder of dialogue" is the combination of knowledge domains and paradigms. We introduce these concepts briefly here. A knowledge domain can be seen as a profession (i.e., engineering, finance, marketing, psychology). In most organizations, employees are still grouped according their professional (or functional) domain. They know a lot about purchasing, marketing, sales, finance, or production. A paradigm can be seen as a dominant worldview. Next, we will elaborate on key elements mentioned in **Table 2**. Because this chapter is about changing language interaction is a key aspect in the ladder of complexity, we focus on (1) actors, (2) the group process, and (3) the role of the change consultant.

3.1. Actors in the different type of dialogues

The actors in a type 1 dialogue are talking with peers who are familiar with the field. For example,¹ a group of service engineers or team leaders with a technical background talking about a technical problem that needs to be solved. The participants understand each other well (i.e., within one domain), and there is hardly no need for clarification. In type 2 dialogues, the actors differ in expertise, but still remain within the same paradigm. In our example, an employee from the financial department joins the conversation. The technical problem, addressed by the service engineers, still has to be solved but there are some financial restrictions also which have to be taken into account. The diversity of arguments, based on differences in expertise, will highlight different aspects of the problem. The whole groups want to solve the problem, because they all acknowledge that customer satisfaction is important. However, the technicians might want a technical perfect solution, while the financial employee wants a solution with reasonable cost. This type of dialogue is experienced as correct, although less practical, and will take more time to come to a satisfied closure.

Taking the same example further toward a types 3 and 4 dialogue makes the group dealing more complex due to the introduction of another worldview or paradigm. The technical problem in our example can only be solved with the help of the supplier and the customer. Actually, to solve the problem, some co-production is needed. The service engineers can solve the problem when the supplier can give them some special equipment and deliver spare

¹This example is based on the Home Utilities case as described in Section 4 (see also Table 4).

materials on a short notice. The supplier is able to do this, but this will cost a certain amount of money. The financial employee does not accept these extra costs, because he sees the costs as outrageous of delivery of bad stuff in the first place. The service engineers argued that the costs to be made are not reasonable for this type of solution. The customer is also involved and proposes yet another solution that will give him less trouble at home while the service engineers solve the problem. Overall tension arises between the participants, and it seems that a quick solution of the problem is far away. People feel they have to compare apples and oranges (incommensurability). Participants, who are not used to deal with increasingly complex demands, often become reactive, take less responsibility for their results, and feel that they can interfere in the affairs of others. The whole conversation will become more emotional and requires empathic listening skills, and the ability to learn from other participants as well.

In type 5 dialogue, *causality* and *time* come into place. Given our example, the service engineers might ask the financial employee to give an estimate for the cost they can make. Instead of giving a budget, the financial employee first wants to know the detailed cost for solving the technical problem and after that, he can give a formal go. The service engineers can develop several scenarios to solve the problem (i.e., a technically perfect way, a very cheap way, and something in-between) but need to have information from the supplier about the specific cost for extra equipment and spare parts. Finally, the customers are not involved in this dilemma, and in the end, he has to give his customers satisfaction score on a scale of 1–5. The manager of the technical department, who is involved at this moment in the conversation, will get a quick bonus when the customer satisfaction score is 4 or higher. The effect of all (proposed) solutions and (desired) outcomes is somehow efficiently and rationally calculated and explained by the participants. This is based on the kind of an assumed interaction between the variables (i.e., price, customer satisfaction score, technical problem solved, acceptable cost) and the number of variables. In this example, these variables and their relations seem constant and reasonably clear to all participants, which is often not the case.

The sixth type of dialogue deals with very complex dynamics in the process of solving the "technical" problem. In our example, we add information from the Asset Department who is responsible for the technical infrastructure of electric and gas utilities in the homes of citizens. The Asset Department recognized that the problem was recurring every once and a while. In most of the situations, the solution of the service engineers seemed insufficient. The spare parts of the supplier were not adequate for a permanent solution, and a root cause analysis for this type of problem was not yet made. It was already clear that the problem could have different causes that might had to do with the outside temperature, the rainfall in a certain period, and the way citizens used their infrastructure at home. The Asset Department was trying to recognize patterns in this chaos, looking at a process unfolding itself. They saw that both the variables and their relationships were subject to change and unexpected transformations emerged (e.g., the problem occurred every once and a while). As the variability of the variables and their interaction increases, nonlinearity increases which makes the process and outcome unpredictable and unique.

Participants in this example are often not working closely together but are working dispersed over the (functional) organization. When more participants are involved in the conversation,

they must review their own, taken for granted, assumption about the "best solution" for the problem. In the group process, they all enter in a discomfort zone, but at the same time, the generative potential gets larger and larger. "Managing" such changes consist of working with relevant differences, providing the right boundaries (containment) and gaining insight into patterns in the unfolding process [29]. This so-called "formative causality" forms itself as it evolves [27]. This shifts the view fundamentally from planned action to careful and unprejudiced observation, from goal-oriented interventions to subject-subject relations, and an eye for spontaneous and emergent changes.

Finally, in the seventh type of dialogue, we enter the "empty field." This is the unknown, the "unconscious" says [30]. Change is seen as arising from a morphogenetic field [31], which we call the "empty field" because it lies outside the cognitive, practical, and emotional range of the participants. What people sometimes tacitly know is different from what they find hard to image or speak about. In conversations, people point at it as "that" or "it," as a "felt sense" [32], or as the "thought-unknown" [33]. In our example of the home utilities organization, a search starts for new products, other technical solutions, better materials, other ways to protect the electric and gas utilities against weather conditions, or even considering completely new ways of distributing energy. However, no one has any idea of what the solution might be or what steps have to be taken. The participants in our conversation cannot provide any answer to these questions because they are referring to old (known) concepts, have little experience, or are not sensitive enough to imagine "the new." Yet when there is a feeling that the group can figure it out, at that moment a dialogue can investigate the "that." Following a transformative logic [27], participants can refer to earlier experiences and use storytelling as a method to make connection with each other, to learn to feel at ease in not knowing and to search for workable elements in this specific situation together (Cooperrider and Srivastva in Woodman and Pasmore [34]).

3.2. The group process in different type of dialogues

What becomes clear in the example described above is that the group process starts with a simple meeting between service engineers discussing the possible solutions to solve the problem. The group dynamics are not complicated because the participants are talking and thinking from the same (technical) domain. In the second type of dialogue, for example, financials come into play adding another knowledge domain. Nevertheless, the problem is doable. Dealing with some uncertainty is simplified by reducing the complexity. This reduction denies the required complexity of our example leading to less suitable solutions, which is often taken for granted.

In types 3 and 4 dialogues, the participants experience a tougher situation where speakers appear to "come from different worlds," having trouble to understand each other, feeling more confused or even frustrated. They really need to bridge the gap between differences in knowledge domains and of possible paradigms. The uncertainty increases, and participants start to have difficulties with each other's viewpoints and with group relationships. Resistance might rise and openings to rather new viewpoints are hard to find. The group process is more dynamic, and it is hard to make progress at least that is what the participants often think.

The type 5 dialogue is complicated. Complexity and nonlinearity are often ignored in order to maintain clarity and to repress feelings of uncertainty. Simple models are used to reduce uncertainty. Participants speak in a distant voice *about* the change, instead of giving their personal impressions in the "here-and-now." This type of dialogue seems to be a kind of turning point. On the one hand, it is easier to go back to situations that are comfortable and known. On the other hand, using the uncertainty and diversity, participants can substantially contribute to each other's expertise and to the group as a whole. At the end, this will give a better solution for the problems to be solved.

In a type 6 dialogue, the participants experience the conversation as a part of a journey. Together, they are travelling and wondering about the situation of the problems on their way. This requires a group process in which participants are open, respectful, and willing to investigate each other (and their own) opinions and assumptions. These kind of conversations need time and are often less serious and more playful. Nevertheless, this type of dialogue requires hardworking of all participants and must not be seen as a funny, time-consuming experiment leading to nothing.

Finally, the seventh type of dialogue in which participants often need to tolerate a rollercoaster of uncertainty and remain in a discomfort zone for some time. The benefit of this type of dialogue is that a totally new horizon will arise that could not be foreseen by anyone at the start. Dialogues of this type require open-ended questions such as how do we co-create a challenging way of delivering home utilities for houses, how can we learn and improve our performances collectively, how can we organize "energy distribution" in our country? These "wide" and open questions invite participants to think "new" and forget about old ideas.

3.3. The role of the consultant in the different type of dialogues

Within the types 1 and 2 dialogues, the change consultant is mostly seen as an expert and decision-maker. Within our example, it might be the most experienced service engineer or the team leader with a technical background. In addition, the external technician is believed to come up with the best technical solution. In types 3 and 4 dialogues, the change consultant is less experienced in the typical (technical) content and act as a mediator between different positions. In this perspective, the group dynamics is the main focus of the consultant. In our type 5 dialogue, the consultant will act as an expert in a planned change approach knowing that there are of course different ways to reach the goal but one way is to be preferred over the other. Therefore, in our example, the change consultant will provide a best possible plan in which the different stakeholders have their say and the solution is acceptable by all of them. The change is realized by executing interventions according a planned timetable. The sixth type dialogue requires a process expert and a skilful fellow traveler who is able to express openly realistic doubts, fears, and uncertainties about the change process. Fear is not to be avoided but to be explored, trying to grasp its meaning. The change consultant does not really know how to realize the change objective but is able to facilitate the complex group dynamics and has the skills to guide the participants through the unknown trajectory of their trip. Finally in the seventh type of dialogue, the change consultant is a facilitator taking a more "therapeutical" or "philosophical" role. During the change process, the facilitator addresses

(existential) fears and sometimes, primitive defense mechanisms of the participants. The emphasis lies then almost entirely on the analysis of the here-and-now [22]. This kind of dialogue requires a very skilled facilitator and participants who are open to self-investigation, self-criticism, and have guts to show their inner feelings.

4. Practical cases

This section describes three cases in which we studied intensively the language use during interaction processes between participants in organizational change projects. The focus of this study (based on Ref. [7]) is in particular the language use of managers, engineers, and consultants and their specific professional discourse differences. The cases provide insights in how interactions and language use can be successful or how it can hamper productive collaboration in situations of organizational change. We use the three cases in a retrospective way and try to connect the findings with the different dialogical types as described earlier. The ladder of complexity was not a part in the original study by Pieterse [7].

4.1. Methodology

The methodology is used for all three cases and is based on a framework for the discourse analysis. The use of a semi-structured interview protocol provided data about the contextual (i.e., change and organizational context) aspects of the cases. Components of the discourse framework were a lexical and a syntactic analysis. The data consist of 96,016 written words (i.e., formal project documents) and 101,207 (oral) discourse words (i.e., formal and informal meetings). In total, 112 people were interviewed during 68 semi-structured interviews. Most interviews recorded provided over 25 hours of text. The speech act [35] analysis is performed on 122 utterances (4429 words) and attributed for 13 different syntactic measurement points. **Table 3** shows the syntactic analysis framework and specifies five speech acts supposed to be relevant for organizational change, two items for negotiation strategy and two items for communication support [11]. Finally, four conversation phases [36] were taken into account. (For more details see Ref. [7]).

The cases studied were all in the middle of an organizational change project involving management, (internal and external) consultants, and service engineers. In these projects, the service engineers were the object of change. The researcher performed a participative action research method for about 2 years in every organization. The ongoing change projects in the three cases were not the primary focal point, but it gave a setting in which interaction processes between the different professional discourses could be studied. By being in the organization as a participant doing also the research, we were able to grasp the social interaction, the typical discourse of professional groups, and the sense-making processes that took place both in a formal and mostly afterwards in informal gatherings. This approach gave insights that would never be able to find using a more quantitative research method. We conjecture that there is a possible researcher bias because it is impossible to observe a change process without being involved or influencing. **Table 4** gives the characteristics of the three case organizations using the typology of Mintzberg [37].

Speech acts [35]	Negotiation strategy and Communication support [11]	Conversation phase [36]		
Assertives	Noncooperative	Initiative phase		
Claims supported by evidence, true and false statements	This behavior shows noncooperativeness, and disagreement by using utterances that criticize, denies, disapprove, object, reject, show indignation and/ or irritation	This phase relies on assertions, directives, commissives, and declarations		
Directives	Cooperative	Understanding phase		
Request, to get someone to do something (e.g., invitations, instructions, orders, and commands)	This behavior shows cooperativeness, agreement by using utterances that admit, confirm, inspire, give confidence, emphasize cooperation, and/or show goodwill	This phase is generally characterized by assertions and expressives. Claims are made, evidence and testimony given, hypotheses examined, beliefs and feelings explored, and contentions maintained		
Commissives	General	Performance phase		
Promises or natural responses to a request committing to a future action	These supporting kinds of speech acts use utterances that ask for understanding, confirmation, information to explain, request, stipulate and/or suggest	An interplay of directives (requests) and commissives (promises) spoken to produce a specific result		
Expressions	Meta communication	Closure phase		
An affective state (e.g., worries, apologies, personal problems)	This supporting kind of speech acts use utterances that conclude, close, engage, offer, promise, propose, remind, repeat, resume, and/or specify	This phase is characterized by assertions, expressives and declarations to bring about an end to the interaction process.		
Declarations				
Create a new set of opening conditions.				

Table 3. Syntactic discourse analysis framework [7].

The findings of our study are described as follows; first, a perception about the organizational change results per case and second, the results of the professional discourse analysis. The change result of case 1 was out of the planned time, budget, and resources. It took the organization more effort as planned in the beginning, and the change was not successfully implemented. In case 2, the change project was within time and budget but implemented with limited functionality of the maintenance system. It was considered a partly successful change project. In case 3, the change approach was not strictly planned but more emergent. No time and budget restrictions were given upfront. We saw a gradual shift in conversations and accordingly in behavior of the service engineers.

When we look back at the cases now and consider the dialogical ladder, we can say that in case 1, the managers, consultants, and service engineers formed a diverse group of professionals having quite different values and worldviews. The knowledge domains seen as professional background were also diverse (e.g., ICT, HRM, change management, technicians). These differences of the actors forced them into a relational complexity with lot of tensions that made it hard to co-create. The situation in case 1 can be situated on level 3/4 of the dialogical ladder

	Case 1	Case 2	Case 3	
Sector	Home Utilities	Aircraft maintenance	Housing association	
Organization typology	Machine bureaucracy	Adhocracy	Professional organization	
Focus of change process	Implementation of an innovative ICT tool (Tablet PC) for service engineers	Implementation of a MRO system (TRAX) for aircraft maintenance employees	Change in behavior of service engineers and area coordinators from a technical working attitude toward a customer- centered attitude	
Number of employees	4100	400 (Staff) 1250 (cabin crew)	420	
Employees involved in the change program	650	220	40	
Organizational structure	Decentralized (regional and departmental)	Centralized (dispersed in departments)	Centralized (dispersed in districts)	
Period of study	June 2008 until June 2009	Aug 2008 until March 2009	Oct 2008 until July 2010	

Table 4. Characteristics of the case organizations using the typology of Mintzberg [7].

with this difference. The actors were not able to have a dialogue in which the tensions were made productive. Many project meetings, kick-off meetings, and informal gatherings ended in a discussion were facts, and opinions were mixed up. The service engineers wanted to solve problems in a simple and practical manner, while managers often asked for understanding but less practical guidance. It seems that in case 1, the actors were not able to make the tensions productive and cope with the social complexity. Instead, communication hampered, actions were delayed, and participants were less involved. All of this leading to an unsuccessful change result as mentioned above.

Case 2 was partly successful, although not all functionalities of the maintenance system were operational at the deadline of the project. The change program was a well-planned and managed project. A big difference compared to case 1 was that most of the project members were service engineers themselves. Some actors worked on the purchasing department or did inventory work. However, the project managers, most project members, and the key users all had quite the same professional background and related (technical) discourse. This case can be seen as a type 1/2 dialogue in which all members shared mainly one knowledge domain, had similar expertise and used practical wording in the conversations. The (external) learning consultants on this project were experts in their field and understood the professional discourse of the service engineers. The only difficult thing for the service engineers was giving training sessions on the new maintenance system for their colleagues. This role was out of their comfort zone and required special attention from the project management and learning consultants.

Case 3 was more successful, although the same professional groups had to interact in their organizational change process. This case can be positioned as a type 6 dialogue on the ladder of complexity. Different to case 1 was the change approach, which was not strictly planned,

but a more emergent change process. The management had not defined any phasing or planned activities upfront. The management provided a high-level vision, which had to be made specific by a diverse group of service engineers. The whole change process was set up as an open learning program and gave participants the opportunity to listen, to ask questions, to have informal gatherings in-between the training sessions, and to learn or even to readjust their individual thinking about how their work should be done. The sessions were not like traditional trainings, but were set up for information exchange, getting to know each other, and having open conversations in which personal reflections and emotions about the change process could be exchanged. During these sessions, trust and psychological safety increased within the group, which made it possible to deepen the conversations. This different change approach, together with the open mind of the participants, made it possible to create a situation where initial tensions could be made productive.

Table 5 gives an overview of the syntactic part of the discourse analysis in which 13 items of our discourse analysis framework were labeled and counted based on a selected set of utterances done per professional group and per case.

Table 5 focus on the service engineers (figures in bold) because in the original study, we wanted to explore this professional group during change projects and how their professional discourse interacts with the professional discourse of managers and consultants.

We positioned case 1 as a type 3/4 dialogue on the ladder of complexity. Case 2 can be seen as a type 2 dialogue, and case 3 can be characterized as a type 6 dialogue. As mentioned before, this is within retrospective. The original study by Pieterse [7] did not used the ladder of complexity.

Case 3 shows two service engineers who participated in the informal conversation. Because we focus on group level, instead of the individual level, we cumulated their utterances in order to compare with cases 1 and 2. It is clear that in the oral communication "expressives" (an affective state such as worries, apologies, personal problems) are being used. However, in cases 1 and 2, these kind of utterances have rather low frequencies compared to case 3. Obviously in case 3, there is more openness between the actors and it seems accepted to bring emotions to the workplace during interactions. This relates to a type 6 kind of dialogue in the ladder of complexity. In these types of dialogues, the actors differ in value and worldview. The dialogue is also making a more personal appeal and a need for expressing personal emotions.

Another aspect that should be mentioned is the phasing of the conversations. Case 1 is completely missing utterances that could be labeled as the "closure phase" (this phase is characterized by assertions, expressives, and declarations to bring about an end to the interaction process). This fits within a type 3/4 or 5 dialogue in the ladder of complexity. In those dialogues, the group process becomes tough, sticky, and there is a tendency to flee. Fleeing can be seen as letting things unspoken and actors go their own way without bringing the conversation to a good end. In case 3, all actors feel responsible to end the conversation in a productive manner. Both the speech acts and the conversation phasing might indicate how actors cope with the productive tension in their conversation, hence realizing adequate change result at the end.

Cases	Case 1 Home utilities		Case 2 Aircraft maintenance			Case 3 Housing association		
Speech acts	Manager	Service Consultant engineer	Manager	Service engineer	Consultant	Manager	Service Serv engineer 1 engi	ice Totals neer 2
Assertives	9	10 1	14	9	1	4	9 3	60
Directives	2	4 8	2	1	5	2	2 1	27
Commissives	1	1 1	_	1	1	-		5
Expressives	1	5 () –	6	1	_	6	12 4	35
Declarations	-		_	_	2	_		2
Negotiation strategy								
Non-cooperative	1	6	3	2	1	3	6 0	22
Cooperative	5	4 2	8	4	1	5	3 1	33
Communicative support								
General	5	7 7	9	4	3	4	2 1	42
Meta communication	3	2 1	6	4	4	4	13 3	40
Conversation phases								
Initiative	1	1 2	5	3	3	2	6 –	23
Understanding	8	16 6	9	9	1	10	12 5	76
Performance	6	3 4	3	1	2	1	1	21
Closure	_	-	_	1	3	3	4 -	11

Table 5. Overview of syntactic discourse analysis results across the cases [7].

The role of the consultants also differed in the three cases. In case 1, the change management was performed by internal consultants very familiar with a planned change approach. However, the mediating role was less addressed and during project meetings sometimes misunderstanding, confusion about objectives and a mixture of facts and opinions did hamper the conversation. Case 2 used two external learning consultants who mostly facilitated the change process. In fact, they worked as a mediator or process experts, while the case situation required a type 2 dialogue. The expert and decision maker role (both on content) were foreseen by the project manager of the case organization. In case 3, an internal and external consultant facilitated the learning and training sessions by taking a process expert role.

4.2. Results

As said before, the linking of the ladder of complexity to the findings of the three different cases is done in retrospective and can be seen as a reflection afterward. What are the overall results? First, we can conclude that the organizational context (i.e., structure, systems, procedures, and regulations) affects the way actors behave. In a mechanistic organization, it seems that there is less attention for social complexity, while in an organic organization this is seen as "fact" of daily (organizational) live. Second, the change approach is considered very important. The planned change approach mostly does not take social aspects in consideration. The plan is the main source and focuses on the majority assuming that every actor is at the same organizational time and pace. Third, we conclude that differences in professional cultures might hamper interaction processes due to the ability to cope with uncertainty, tensions, and fear. In general, we can conclude that the change result over the three cases is positive when the (organizational) context is person oriented and egalitarian. Furthermore, it seems that actors are more able to cope with social complexity in situations, where both uncertainty avoidance and the power distance between actors are low [7].

Of course, the individual and the psychological aspects of every person are not taken into account in this study, but we assume that real change requires the ability to reflect and learn about one's own belief and thinking preferences. Language plays a major role in including and excluding frames of reference, including and excluding certain type of information, selecting solutions and modes of actions, and so on. In a group interaction process, it is in most of the situations the responsibility of the manager or the consultant to facilitate the interaction dynamics. Management in these terms can be seen as a discursive practice in which "it is not clear how polyphony as such could contribute to change or how this could be managed" [38, p. 24]. Nevertheless, taking both the original study by Pieterse [7] and the ladder of complexity might lead to new and interesting research for the future. This will be discussed in the next section.

5. Discussion, conclusions, and future research

In this chapter, we introduced the dialogical ladder as a "sensitizing device" that might be helpful for managers, consultants, and all other participants that often work together in

organizational change processes. Often in these uncertain change situations, participants take positions based on their experiences, professional background, worldviews and "what has worked in the past" when problems had to be solved. We have discussed different paradigms regarding language (i.e., the representational and conversational schools) and change management (planned and emergent change). This was not done to take a stand and to claim one school better or more right than the other. The discourse analysis framework (Table 3) brings together some important aspects of communication. The speech acts, the negotiation and communication strategies, and the conversation phases are in fact developed and researched separately. But in real interactions, these three aspects come together and might be helpful for understanding what is happening in social interactions between actors with different professional backgrounds in an organizational setting such as change projects. Table 5 shows simple frequencies of utterances labeled according the discourse analysis framework, but it does not give insight in the level of complexity of the conversations and the interaction processes. Therefore, we added the ladder of complexity in order to provide a richer picture of the three cases. By adding this second framework, in retrospective, we were able to combine the labeled frequencies with some aspects from the ladder of complexity. Although this is a theoretical exercise, we consider our propositions as quite useful and realistic.

In essence, we think it is important to see the differences in dialogues, both by using the discourse analysis framework and the ladder of complexity in a combined manner. Actors (i.e., managers and consultants) have to cope with these differences by making existing tensions between actors productive. The generative dialogue seems a good "format" but requires social and language skills of all participants and is often not very simple to realize in daily practice. This brings us to the point that not everybody in the organization is able to participate actively in this kind of dialogue. We think that a personal openness, vulnerability, and learning style are a key for successful results. This is not linked to a position in the organization or to a certain kind of function but linked to positions in the "language of change." To "see" that people reason from different starting points, and not to fear other expertise, worldviews or views on time and causality, can make dialogue much more richer and participant much more free. To realize that difference is nothing to be afraid of but can lead to more effective and mature relations.

To conclude, we give some guiding principles; first, having respect and create open and safe boundaries in which participants feel free to express themselves. This affirmation is to recognize the worthy essence of the other and respect others subjectivity. Second, taking time and create space in the dialogue. Participants have to letting the other "free," let him talk, take a pause, and rephrase thoughts. It means slowing down the conversation and exploring your own assumptions and those of others. In a very practical way, this means that meetings take time, agendas are not useful, a standard "role play" (i.e., the managers is the chairman, the expert is asked for his opinion, etc.) does not work in this dialogue. The third guiding principle is about the relational aspect. "The generative capacity of the dialogue is directly linked to the capacity of opening up to differences as differences in a relation" [22]. Finally, we see that dialoguing is much more than an abstract "language game," in which tacit knowledge, intuitions, and bodily experiences play their role. Emotions, stress, or a free flow of energy, excitement, and vital conversations can emerge during the dialoguing process. This requires from participants to examine differences and go with the flow. This requires close attention to bifurcation points in the dialogue, where anxiety might take it over. Patience is needed not to overestimate the capacity of participants to contain their fears, and also to not to run away from a little discomfort too soon. This is not easy in organizations where we are mostly used to cover emotions with simple logic and simplistic rationality.

By writing this chapter, we also aim to gain interest in future research and deepen our understanding about dialogues, social interactions, and the sociolinguistic insights that can be useful. These elements are especially important in organizational change processes in a VUCA world. Therefore, we would encourage sociolinguistic research combined with change management and organizational theories in a practical setting using a multiple case study methodology. In addition, linguistics studies using ethnographic and narrative (qualitative) methodologies in an organizational setting can gain new insights. The scientific fields of organization and change management mention that communication is a key for successful change, but studies using linguistics are rare in this field. On the other hand, the scientific field of sociolinguistics is not very familiar with change management and organization theories as far as we know. These studies and the results can be very relevant for both practice and science itself.

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