What Can Knowledge-Creating Organisations Learn from Theatrical Improvisation?

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ABSTRACT

This chapter amplifies the understanding of organizational knowledge creation by examining the creation of new knowledge through the lens of improvisation. Such an approach views knowledge creation as a spontaneous process where thinking and action converge, and underlines the synthesis of diverse actors' knowledge and perspectives in a flexible and agile manner through their engagement in social practice. To increase understanding of knowledge creation as an improvisational capacity, we turn to a context in which improvisation is employed systematically: the world of theatre. We explore how and when improvisation is

utilised among theatre groups in their creative processes, and associate forms of theatrical improvisation with three types of knowledge creation. The chapter enriches knowledge management literature by providing alternative models of knowledge creation, and also contributes to the emerging literature on arts-based management.

Key words: knowledge creation, improvisation, theatrical improvisation, devising theatre, improvisational theatre, arts-based methods

INTRODUCTION

Knowledge creation undoubtedly is a fundamentally important capacity for any organisation attempting to succeed in today's turbulent competitive environments. Likewise, management of knowledge creation is among the most important activities in knowledge management (Argote et al., 2003). Much of the knowledge-management discussion on knowledge creation has been based on Nonaka's (e.g., 1991; 1994; Nonaka and Takeuchi, 1995) SECI model. However, this model only portrays one archetype of possible knowledge-creation processes and places far too much emphasis on the highly contested notion of tacit and explicit knowledge being clearly separate and distinguishable, and on managerially approved notions of what constitutes knowledge (e.g., Gourlay, 2006, for an eloquent critique). In this chapter, we claim that it is important to widen understanding of the different ways in which knowledge can be created. Such an understanding will enable organisations to recognise and manage knowledge-creation processes more effectively, as well as refuel academic discussion on knowledge creation.

We suggest that knowledge creation essentially is about producing new knowledge through engaging in practice (e.g., Orlikowski, 2002), typically in social interactions with others (e.g., Nahapiet and Ghoshal, 1998; Tsoukas, 2003; Cook and Brown, 1999; Nonaka and von Krogh, 2009). Many scholars acknowledge that knowledge creation is a process in which diverse actors' knowledge and perspectives are synthesised (e.g., Harvey, 2014; Nonaka and Toyama, 2003) to gain new knowledge. Understood in this way, we assert, following Kamoche and Pina E. Cunha (2008) that improvisation is a central part of organisational knowledge creation. Especially in a world in which continuous and unexpected change is the new normal, pre-defined planning is too rigid (Weick and Quinn, 1999; Andreeva, 2008), and improvisation, i.e., behaviour in which thinking and action converge, allows for

requisite flexibility and agility (Hmieleski and Corbett, 2006; Montuori, 2003; Weick and Roberts, 1993; Fisher and Amabile, 2008; Nisula and Kianto, 2015). In addition, as social context plays an important role in organisational knowledge creation (Nonaka and von Krogh, 2009) and innovation (Nemeth, 1997), improvisation may function as a fruitful mechanism for transcending existing social practices and boundaries of knowledge, building room for new knowledge creation.

To increase understanding of knowledge creation as an improvisational capacity, we turn to a context in which improvisation is employed systematically: the world of theatre. Although extant research has associated theatrical improvisation with emergent strategy-making (Kanter 2002), fostering teamwork and leadership (Crossan, 1998), innovation (Vera and Crossan, 2005), improvisational-skill development (e.g., Koppett, 2002; Sawyer and DeZutter, 2009), human consciousness and cognition (Drinko, 2013; Fuller and Magerko, 2010), web-based groups (McKnight and Bontis (2002), and social media activities (Singh and Sonnenburg, 2012), very little previous analysis has been conducted on the interface between knowledge creation and improvisation.

We believe that theatrical improvisation (Spolin, 1979; Johnstone, 1996; Koppett, 2002), that is, improvisation in theatre, provides a very fruitful context for research that aims to understand knowledge creation for several reasons. First, in theatre, the act of creation takes place in a tangible, interpersonal sphere that can be observed more readily than, for example, the development of completely intangible ideas. Second, theatrical productions are creative processes that often are non-linear, allowing space for emergence. Third, theatrical improvisation underlines the corporeality of the creative process. Theatrical improvisation, as a largely interpersonal and creativity-related linguistic skill, is accessible to the general public (Kanter, 2002; Vera and Crossan, 2004; Pina, Cunha and Vieira Da Cunha, 2003; Fuller and Magerko, 2010). Thus, it can be more directly relevant to everyday activities in all types of organisations and endeavours, helping to extrapolate research findings to non-artistic contexts. Fourth, as improvisation aims to deviate from familiar practices and knowledge (e.g., Moorman and Miner, 1998) it helps in transcending existing social practices and boundaries of knowledge and, thus, builds room for new knowledge creation. Finally, in theatre improvisation is used in a varied manner for performance and as a performance. Therefore, theatre can serve as a useful vantage point to explore improvisation and, more specifically, how improvisation is utilised among theatre

groups in their creative processes.

To examine knowledge creation as improvisation, we adopted an exploratory research strategy and interviewed practicing theatre professionals who utilise improvisational methods in their creative processes. Through a grounded-theory type of analysis (Glaser and Strauss, 1967), we tease out three distinct ways in which improvisation is utilised in theatre groups, then associate them with three types of knowledge creation. Transcending the metaphorical level and exploring how and when improvisation is enacted enable us to enrich the current body of literature on knowledge management with insights on alternative models of knowledge creation. Therefore, the study contributes to the literature on arts-based initiatives and practices for organisational development and knowledge-based management (e.g., Meisiek, 2004; Taylor and Carboni, 2008; Barry and Meisiek, 2010; Schiuma, 2011).

THEORETICAL BACKGROUND

ORGANISATIONAL KNOWLEDGE CREATION

To meet the demands for increasingly diverse, complex and rapid knowledge creation, and to enable involvement by a wide cross-section of external stakeholders in organisations' ideation, product development and innovation processes, it is clear that various kinds of knowledge-creation processes are required. While current knowledge-creation models describe continuous and incremental processes of organisational knowledge creation, e.g., conversion (Nonaka and Takeuchi, 1995) and institutionalisation (Crossan et al., 1999) of knowledge, the demand for building new knowledge and developing unique solutions to complex, emerging and unfamiliar problems is the key challenge that organisations face today. On one hand, generating highly creative, unique or 'new to the world' outcomes (i.e., something that does not exist yet) demands knowledge creation that enables constant movement or shifts between imaginative exploration and crystallisation. On the other hand, collective, ad-hoc knowledge creation might be required to generate novel solutions for specific emerging challenges or problems. In this case, knowledge creation reflects groups' collective knowledge and group as a collective entity (Erden, von Krogh, Nonaka, 2008). In addition, various collective idea-generation events, e.g., innovation camps, aim to involve a wide variety of actors in generating novel ideas or product concepts,

the kind of knowledge creation is conducted among 'collections of people' (e.g., Erden et al., 2008) -- often strangers who do not have shared background, practices or memory.

Indeed, several attempts have been made among scholars to shape knowledge-creation models. For example, Nonaka and Toyama shaped the SECI model (Nonaka and Takeuci) and defined organisational knowledge creation as a *dialectical process in which various contradictions are synthesised through dynamic interactions among individuals, organisation and environment* (Nonaka and Toyama, 2003, p. 2). Thus dynamic and collective knowledge creation process involves activities such as identifying a problem, then generating and applying knowledge to solve the problem, thereby creating new knowledge and understanding (ibid.). In addition, Erden et al. (2008) shaped and contributed to knowledge-creation theory (SECI model) by highlighting the role of the quality of groups' tacit knowledge, i.e., collective improvisation in organisational knowledge creation.

Likewise, several scholars understand collective and collaborative creativity as a dialectic and integrative process in which participants' knowledge, experience and perspectives are synthesised to create new knowledge and understanding (Hargadon and Bechky, 2006; Sawyer, 2004; Harvey, 2014; Prins, 2006; Grey, 1989; Nonaka and Toyama, 2003; Kurtzberg and Amabile, 2000; Harvey and Kou, 2013). This integration and synthesis are a fundamental basis for achieving radically novel ideas (Harvey, 2014; Hargadon and Bechky, 2006), i.e., creation of radically new knowledge and innovations.

It follows that knowledge is created in social settings, in situated action (Suchman, 1987; Nonaka and Toyoma, 2003), while people interact with each other (e.g., Nahapiet and Ghoshal, 1998; Tsoukas, 2003; Cook and Brown, 1999; Nonaka et al., 2000; Nonaka and von Krogh, 2009) and engage in practice (e.g., Orlikowski, 2002). Thus, knowledge creation is context-specific (Grant, 1996; Swart and Harvey, 2011; Hayek, 1945; Nonaka and Toyama, 2003), relying on situational knowledge (Grant, 1996). More specifically, knowledge creation is collaborative and collective. Our literature review shows that multi-party collaboration (Gray, 1989; Prins, 2006) and collaborative emergence (Sawyer and deZutter, 2009), referring to collective knowledge creation, can occur when:

o collaboration is viewed as an emergent process (Gray, 1989; Sawyer and deZutter, 2009; Prins, 2006)

o people work in interdependent relationships by dealing constructively with differences (Gray, 1989; Harvey, 2014; Nonaka and Toyoma, 2003)

o people remain open to emerging solutions (Gray, 1989; Sawyer and de Zutter, 2009; Harvey, 2014)

o there is equal opportunity among participants to contribute to the process (Sawyer and deZutter, 2009)

o responsibilities and decision-making are shared in setting the future direction of the task at hand (Gray, 1989; Prins, 2006).

Similarly, organisation scholars acknowledge that the interaction models that emphasise connectivity, interdependence (e.g. Ciborra, 1996), speed, disembodiment and distributed knowledge (Kellogg et al., 2006) enable 'rhizomic' methods to create and use knowledge. In knowledge-creation theory, this idea has been expressed through the concept of '*ba*', i.e., the 'place where knowledge is created' (Nonaka and Toyoma, 2003), which can be either a physical or mental place, or a social space.

In sum, as noted, knowledge creation is needed in many situations for many types of purposes in contemporary organisations. It is therefore important to provide a multi-faceted understanding of the many forms of knowledge creation to shape our understanding on knowledge creation. Whether knowledge creation is approached through the lenses of Nonaka's SECI model (e.g., Nonaka, 1991; 1994; Nonaka and Takeuchi, 1995), organisational-creativity literature or more generic organisation studies, it seems clear that it is essentially an emergent, situated and collaborative process. These three aspects are visibly and tangibly concretised in the world of theatre improvisation, offering a fruitful context for providing new insights into the phenomenon of knowledge creation.

THEATRICAL IMPROVISATION AS A PERSPECTIVE ON KNOWLEDGE CREATION

Within organisational studies, improvisation is defined as '*thinking and doing unfolding simultaneously*' (Weick, 1996) and '*the spontaneous and creative process of attempting to achieve an objective in a new way*' (Vera and Crossan, 2004). It is also

associated with creativity: '*Improvisation may be close to pure "creativity"– or perhaps more accurately to creative organisation, the way in which we respond to and give shape to our world*' (Frost and Yarrow, 1990, p. 2). The definition of improvisation in a theatrical context is rather similar, albeit worded differently, to the definition in organisational literature. In theatre, improvisation is viewed as a process -- more specifically, a living process, 'the way to the scene' (Spolin, 1977; p. 383) or an experimental process (Oddey, 1994) that relies on 'being in the moment' (Drinko, 2013).

The characteristics of improvisation, such as lack of pre-planning, simultaneity of thinking and doing, and making do with whatever material is at hand for a performance (Cunha et al., 1999), are shared with all forms (including theatrical and jazz improvisation (Johnstone, 1979; Spolin, 1977; Koppett, 2002; Barret, 1998; Weick, 1998)) and levels of improvisation (individual, group and organisational). In addition, a form of theatrical improvisation, labelled as improvisational theatre, includes another specific characteristic, namely *group ensemble* (Johnstone, 1979; Spolin, 1977; Koppett, 2002). It is a group characteristics that describes the group's intense play together (playing as an organism), i.e. collective improvisation (Sawyer and de Zutter, 2009; Spolin, 1977, Erden et al., 2008). In collective improvisation, like in improvisational theatre, a theatre group plays without a script or director, enabling players to act by thinking and doing simultaneously (exploring and exploiting, planning and presenting, imagining and doing), using whatever materials are at hand. In this respect, improvisational theatre simultaneously is a social and evolving practice, an unfolding process, and a performance.

Given that theatrical productions are unique and creative processes, it can be argued that they demand creation of new knowledge. In theatre, improvisation is used in multiple and situational ways to face challenges in producing novel theatrical performances, i.e., in creating knowledge. More specifically, as improvisation can be viewed as a social practice, technique, tool, process and performance, it can contribute to a variety of creative functions, depending on who is improvising, when improvisation is used and for what purposes it is being used. Next, we discuss key aspects of theatrical improvisation, process, social practice and performance in relation to organisational knowledge creation.

Theatrical improvisation is about communication and interaction that acknowledge not only verbal, but also non-verbal communicative acts (gestures, facial expression, voices, etc.). Being largely interpersonal and creativity-related phenomena, theatrical improvisation is accessible to the general public (Kanter, 2002; Vera and Crossan, 2004; Pina, Cunha and Vieira Da Cunha, 2003; Fuller and Magerko, 2010). In other words, anyone can communicate and, therefore, participate in improvisation. Thus, it can be more directly relevant for everyday activities in all types of organisations and endeavours, helping to extrapolate the research findings to non-artistic contexts. In this respect, theatrical improvisation underlines the corporeality of the creative process.

Collective improvisation, such as improvisational theatre, occurs under specific circumstances or under specific social practices that are built into interactions between participating people via some well-known rules of improvisation. We argue that any knowledge-creation achievement in organisational settings, either individual or collective, demands and benefits from the transcendence of current, often habitual and rigid social practices. Knowledge-creation theory supports this view, as it asserts that organisational knowledge creation demands a sufficient physical or social place, or *ba*, in which knowledge creation can occur (Nonaka and Toyama, 2003). Seeing knowledge creation as collective improvisation highlights the importance of enacted social practices that break formal social practices to build constantly new social and mental spaces (*ba*) for knowledge creation. This is an important notion, as the interpersonal dynamics among the interdependent actors is the basis for knowledge creation.

While being socially constructed, the group ensemble in improvisational theatre results from group interaction and dynamics that can lead to fluent collective flow of improvised performances – an ideal and intuitive performance flow. Such group dynamics is critical for group creativity and self-organising creative groups, and for building ad-hoc (temporary) collaborations for solving emerging problems. For example, Fuller and Magerko (2010) consider group dynamics to be a unique and fundamental feature of improvisational theatre and a unique feature of human creativity. Thus, any collective knowledge creation would resemble and benefit from such a collective flow.

In theatre, the path to creative performance (outcome) is seldom straightforward. Instead, it constitutes constant exploration, experimentation and

synthetisation, while searching for the best solution to challenges in producing unique performances. More specifically, improvisation is about working between dualities (e.g., planning and acting, or exploring and exploiting), already discussed as context improvisation in organisational literature (e.g., Orlikowski, 1996; Weick, 1998; Bigley and Roberts, 2001; Tsoukas and Chia, 2002; Clegg et al., 2002; Montuori, 2003). We argue that creative process, including knowledge creation, cannot be fully planned. Therefore, it is appropriate to understand knowledge creation as a process of improvisation, that is, as a flexible, adaptive and emergent process enacted in social interactions between participants while shaping shared goals.

Finally, like knowledge creation, improvisation merges individual, group and organisational levels (Hadida et al., 2014). An improviser is a person who independently performs in an improvisational manner (i.e., improvises), operating in unexpected situations in a creative, entrepreneurial, contextual and professional manner (Nisula and Kianto, 2015; Nisula, 2013). In a group improvisation, several improvisers interdependently and collectively perform in an improvisational manner, which is enabled by individual improvisers' interactions. Worth noting is that in collective improvisation, individual and collective improvisation essentially are intertwined (Nisula and Kianto, 2018). However, scholars have different perspectives on organisational improvisation. While some understand it as an extended group improvisation (Moorman and Miner, 1998), others understand it as a culture (Vera and Crossan, 2005), a metaphor for organisational change (Weick, 1998; Barret, 1998; Kanter, 2000) or a capacity to function between dualities (Orlikowski, 1996; Weick, 1998; Bigley and Roberts, 2001; Tsoukas and Chia, 2002). Out of all these analytical levels, improvisation as an interpersonal or group-level phenomenon has received the least research attention (Hadida et al., 2014). This is a surprising research void from the perspective of knowledge creation because organisational knowledge creation is social and collective, occurring mostly in various groups. In the following section, we explore how improvisation is used in knowledge creation and actually utilised in theatre groups as they go about constructing various kinds of performances. We then will describe how we set about empirically exploring this issue.

METHODOLOGY

The paper adopts a qualitative research approach, because the exploratory goals of our research called for qualitative research methods (Easterby-Smith et al., 1991; Glaser,

Strauss, 1967). Semi-structured interviews were the primary source of the data analysis. The interviews were conducted along the questions that we developed based on the literature analysis reported above. In the interviews, we asked how improvisation is used in practice in theatre, as well as about definitions of improvisation phenomena, key principles of improvisation, and some other questions about improvisation. Appendix 1 represents the key questions of the interviews. The interviews were recorded and transcribed, and thereafter analyzed by qualitative content analysis, in which the coding scheme develops with the help of the data (Eriksson and Kovalainen, 2016). This in important in the exploratory research. We first coded or labelled data openly into categories. The categorized data were thereafter coded into three theatrical forms of types, which derived from literature and interviews. Within each category, the data were coded according to the use of improvisation within these theatrical forms, which resulted to final comparative table (Table 1). We chose manual organization of data for interpretation due to the relatively small amount of data (Corbin and Strauss 2008), which aligns also with Eriksson and Kovalainen (2016).

As a secondary and supplementary data, we used correspondent authors' experience from the four theater improvisation training workshops, in which she had been involved in order to learn improvisation. In qualitative research, the researcher's experience enable interpretive research, that is, the researcher is the bricoleur who constructs the study, relying on multiple data sources as well as one's experience and reflection (Denzin and Lincoln, 1994; Eriksson and Kovalainen, 2016). In this study, the lead researcher's experience as both an improviser and a facilitator of improvisation enabled the interpretive analysis. In this respect, the study's findings to some extent rely on her understanding and synthesis.

We sought to involve various types of informants, competent to talk about theater improvisation, to ensure that we have a variety of different perspectives (Houston and Sundman, 1975). Our interviews involved actors practicing theatrical improvisation in different theatre groups and/or institutions and countries (Finland, Russia and England). Specifically, the interviewees represented both fully improvisational theater and more traditional theater that uses improvisational techniques and processes as a part of final performance or for its production. In total, in-depth interviews with seven respondents were conducted. The interviews lasted from 1.5 hours to 2.5 hours and were tape recorded and transcribed.

All the five Finnish interviewees have graduated from Theatre Academy, with degrees as an actor or director respectively: Two of the Finnish actors work for traditional theatre and occasionally take part in improvisation theatre performances. The third Finnish interviewee, in addition to possessing traditional actor experience, is the main teacher of improvisation technique in the Finnish Theatre Academy, as well as a founding partner and of a Finnish long-standing improvisational theatre. This group gives theater performances and, occasionally, provides improvisational trainings in organizations. The fourth Finnish interviewee, while having started his career as an academically trained actor, has been for the past 20 years mostly working with producing improvisation trainings for various kinds of organizations. Finally, the fifth Finnish interviewee is a director who has used various types of improvisation techniques in her plays throughout the years, although she does not do improvisational theatre.

The Russian interviewee does not have formal theater education but has been working as an actor for the professional theater for the last 15 years. The theater the Russian respondent works for is "avangard"/non-traditional theater where improvisation is used both as a technique for production of the performance and as a part of performance itself. Russian respondent also has experience as dramatist for such improvisation-involving performances. The English respondent, an actor, used improvisation in multiple ways in his productions, and also in his work as a marketing consultant.

Our sample, due to its size, cannot be treated as fully representative of all possible theatre formats and ways to use improvisation. However, taking into account its diversity, we believe that it can serve as a good basis for the first exploratory analysis. Furthermore, while improvisation is a popular technique in theatre trainings, there are not that many theatre professionals with an extensive experience of using it regularly in their performance development work, making the population of knowledgeable interviewees rather small.

FINDINGS

In this section we present key findings based on our research data. They are focused around the question how improvisation is used in practice in theatre. We target our focus into this theme, as it emerged in our analysis as the most interesting one. We also asked our respondents about their definitions of improvisation phenomena, key

principles of improvisation and some other questions about improvisation. Our findings in these areas mainly confirm existing literature so we will not dwell upon them in the current paper.

Though improvisation is inherent to theatre art, our interviewees have a very diverse experience of using improvisation. Analyzing our data we realized that there are some very distinct ways to use improvisation in theater. We identified (at least) three theatrical forms that use improvisation very differently: traditional, devising (Oddey, 1993) and improvisational theaters (Johnstone, 1979, Spolin 1977). Let us analyze each of them through the lenses of improvisation.

Improvisation in traditional theatre

In traditional theatre performance is pre-planned, casted and it is based on script. The process of development of performance is mainly guided by the script. The director is a key improvisation agent as it is mainly he/she who improvises within the framework of script, and makes decision how the script should be performed:

> "*Rehearsal is always being in a moment and improvising. It is experimentation and intuitive solutions.*" (director)

> "*So he improvises as a director. ... there is also director's improvisation*" (actor, dramatist)

The actors are responsible on their individual role context and they have possibility to improvise within it in rehearsals until the events become fixed. Therefore, improvisation is used as a tool to develop "fixed" performance:

> "*Every scene/act in the performance involves some goals and intentions of the characters. Their way of a character to this goal can be different – straight or zigzag. It's where you have improvisation in the* (traditional) *theater*" (actor, dramatist)

> "*So by the end of rehearsals, over many repetitions, no more improvisation, all is fixed*" (actor)

In addition to this, improvisation plays very important role in a case of unexpected events on stage:

> *"Improvisation appears when some scenario cannot evolve as it was initially planned (due to some reasons)"* (actor, dramatist)

The actors of traditional theatre also use it for their personal training and skill development:

> *"I used to nightmare that I lost the words on stage in a critical situation and nobody helped him. The nightmares disappeared by the improvisation training and now I trust that I will invite something in such an unexpected case."* (actor in traditional theatre)

The creativity in traditional theatre is understood more as individual than collective ability and individuals also like to be stars and separate from the others, which point of view includes always evaluation:

> *"An ensemble is unknown! People don't know how to support others and how to work for others - the only thing is who is good and who is or will be a star".* (actor, trainer)

The whole process of the performance development is scripted and it has a very clear leadership, that belongs to the director, and that is he/she who holds main responsibility for the development of the performance. The director of the performance is the key improviser. Additionally, the individual actors utilize improvisation for their personal development. Hence, in traditional theatre the creative process is directed, and the improvisation is enacted as an independent i.e. individual improvisation.

Improvisational theatre

An improvisational theatre is very different from the model of traditional theatre. In improvised theatre the process and the performance are improvised and inseparable:

> *"Improvisation theatre … means that the presentation is born or will be constructed in a moment"* (director)

The performance becomes developed in the process, without any pre-planned script. The performance grows in group ensemble in improvisation-in-action by key actors (improvisers) collectively sharing responsibility of the performance. The leadership is shared and changes turn by turn:

> *"No one controls, no one leads. The leadership is changed all the time, turn by turn. Everyone takes responsibility, hears, and listens and remembers and continues the story. "* (teacher)

Thus in improvisation theatre the creativity is seen as collective constructed phenomenon. The ideas are developed one by another collectively and no on owns nor the ideas neither outcomes. In such situation of shared leadership director's role does not exist at all:

> *"Improvisation theatre groups act without director - they don't need it."*(director)

In improvised theatre performance the scene (artistic performance) itself is the creative process itself. It is conducted along the real-time interaction between the group improvisers. The creative process is unplanned and emergent. The group interacts under shared leadership and responsibility in a self-organized manner. Improvisational theatre groups do not make rehearsals in a sense of the traditional theatre. The only preplanning for the performance is to become "prepared" or open for improvisation by using warming ups. Thus, improvisational theatre group represent the interpersonal real-time improvisation.

Devised theatre

The devised form of theatre falls in the middle of these two extremes, traditional and improvisational theatres (some respondents called this method "live" dramaturgy). It begins without script and it grows piece by piece:

> It is *"... when texts are not pre-prepared, when texts evolve during rehearsals between actors and dramatist. So it's kind of text improvisation, when texts evolve influenced by personality of an actor. And the these texts are written down"* (actor, dramatist)

A director provided a more detailed example of how she worked with devising format:

> *"I didn't have manuscript. ... I made some questions for the actors and they answered by writing. They also had to choose their roles. These should be roles that they always have desired to present. We also wrote down the dreams the actors saw during this process and especially the objects that became in dreams. We also improvised by using these objects. ...* (that's how) *material the presentation was constructed" (*director*)*

Devising method is also used in some cartoons and films production studios, as one interviewee describes:

> *"For example the actors may improvise some actions, which are taped and afterwards they draw these cases. Therefore, the certain parts of the stories (pieces) are created by using improvisation"* (teacher)

The peculiarity of the devising method is that the script and performance are developed through shifting between improvisation and "fixing" phases many times:

> *"In devising process we improvise and fix and improvise and fix and shift these modes continuously until the presentation is ready"* (director)

There are also individual differences in use of improvisation in devising form of theatre, as one of our interviewees describes:

> *"I am not able to work with scripts and therefore I use devising form in preparing performance. In my productions the final fixing is often made in very late phase"* (actor/director, consult)

Yet the final result of the devising process i.e. the theatre performance, is not improvisational anymore, it is much closer to traditional theatre than to improvisational one:

> If *"improvisation theater… means that the presentation is born or will be constructed in the moment - in this sense this devising is not improvisation at all. Devising presentations are fixed and trained presentations"* (director)

The devising process of creation starts as an unscripted and it is process to exploring the script by shifting between two modes; improvising and fixing. The interviewees used devising process as a director/dramatist-driven process, where the leadership is vested within this person. However, the nature of leadership changes depending on the phase of the process ("improvising" or "fixing"), so the leadership is mixed, both concentrated and shared, though the director makes the most important decisions on what to "fix" and when stages are alternated. Thus the aspect of creativity shifts between the interpersonal (group improvises) and the individual (director improvises) context. As a consequence, the responsibility for the whole performance is also mixed and changes from collective towards mainly director's responsibility. We can conclude

that in devised theatre process, improvisation is essential part (tool) of making collective discoveries for the scene and to develop a planned performance.

One of the striking differences in the utilization of improvisation is these three distinct artistic processes is that while in traditional and in devising theater improvisation is more tool or technique used during the preparation process (though used for different purposes), in improvisational theater improvisation is the key output, i.e. the theatre performance itself. Another interesting contrast lies in the distribution of roles and responsibilities between the participants involved: while in traditional theater the improvising agents are the individuals (director or single actors), the director being the key improviser, in devising theater improvisation is delegated to actors in some phases of performance development, and in improvisational theater the role of director does not exist at all, actors being collectively the key improvisers. Table 1 provides a comparative overview of these three theatre formats and ways in which they use improvisation.

Table 1: An overview of the three theatre formats and ways in which they use improvisation.

Form of theater	Traditional theater	Devising theater	Improvisational theater
Performance is ...	Pre-planned	Pre-planned	Improvised
Script	Pre-planned (based on initial manuscript)	Developed through improvisation	Doesn't exist
Process of development of performance (rehearsal) is...	Mainly follows pre-planned script	Improvisation / "Fixing" (crystallization) are alternated	Doesn't exist, substituted by special preparatory techniques (warming up, meditation)
Key improvising agent	Director	Director, actors, (dramatist)	Actors
Role of director	To improvise with available resources (script, actors, equipment/objects) to create performance	• to create comfortable "arena" for improvisation • to make decisions on when improvisation and fixing are alternated	Doesn't exist
Role of actor	• to improvise only at initial stages of performance development or when plans fail during performance • to follow what director says	• to improvise during improvisation stages • to follow what director says on fixing stages	• to improvise
Improvisation is mainly ...	A tool to fix failures/ unexpected events A tool to develop "fixed" performance	A tool to develop "fixed" performance A tool of collective discoveries	The performance itself
Responsibility for whole performance	Belongs to director, actors are responsible for their own individual parts	Mixed: in the process of development of the performance it is shared, closer to the final	Shared among all participants (actors), collective

		performance – shifts to the director, with actors becoming responsible for their own individual parts	
Leadership is ...	Very focused	Mixed	Dispersed (shared)
Creativity is focused on...	Individual level	Mixed (shifts between collective and individual level)	Collective level
Nature of creative process	Directed/Managed	Mixed and contextual, Temporarily directed and emergent	Emergent

We highlight that the identified three distinct forms of theatre represent different, but rather ideal types of the ways to use improvisation (Table 1). The ways to use improvisation vary across different theater formats depending on multiple factors (including director's vision, actors' capabilities, and personalities of both). In theatrical reality, the different ways to use improvisation appear rather as a continuum, and there are various ways in which e.g. devising methods are used across different theatre projects. As Spolin (1977; p.14) presents, theatre is about communication and "the actuality of communication is far more important than the method used" by meaning, that in theatre the tools and techniques are used in a creative and practice driven manner. Yet we suggest that the ideal categorization presented here is useful for grasping the key differences between approaches, and it can provide useful insights for achieving non-linear creative processes as well as flexibility and rapid responsiveness through improvisation in non-theater context like in companies.

DISCUSSION

In this section, we will discuss the implications of our findings, both for organisational knowledge-creation literature and management practice.

Our findings suggest that in the theatrical world, improvisation is both a multi-faceted way to create performance and performance itself, playing an important, albeit different, role in various theatrical forms. More specifically, we identified three types of creative performance processes -- the scripted process, improvisational theatre and the devising process -- and found that they varied in terms of tension between managing and enabling (emerging) (Stacey, 2000; Palmer and Dunford, 2008; Leybourne, 2009). In fact, improvisation and emergence go hand in hand, i.e., the more

improvisation there is, the more room there is for emergence. The various theatrical forms differ in terms of degree of improvisation or openness for emergence. While improvisational theatre is amenable to emergence in terms of interaction, process and goals, the production of scripted performances involves improvisation occasionally mainly as director-driven. For example, when the director or actors seek their personal touches or the best way to play in a particular situation. In contrast, devising forms of theatre alternates between improvisation and crystallisation, and the emergence and management respectively. Thus, these theatrical-creation processes reflect various types of knowledge-creation processes.

The creative process of scripted theatrical performance is akin to planned and managed knowledge creation, in which the manager is responsible for the outcome, orchestrating the creative process as the key improviser. In such knowledge creation, the outcome may involve some variation; thus, it is incrementally novel.

The devising process in theatre entails knowledge creation that aims to produce highly novel outcomes (something that does not exist), which becomes generated via cycles that constitute alternating between phases of improvisation (exploration) and crystallisation (implementation) until the desired outcome is achieved. Although led by a manager, such knowledge creation acknowledges the expertise and creativity of participating individuals, and it relies on collective knowledge creation by aiming to integrate and synthesise diverse knowledge and perspectives for the performance or goal at hand (Nonaka and Toyama, 2003; Harvey, 2014; Sawyer and DeZutter, 2009; Gray, 1989).

In contrast, the improvisational-theatre process involves the most collective knowledge creation (Harvey, 2014; Sawyer and DeZutter, 2009; Gray, 1989), in which the group acts in unison or as a collective entity, reflecting self-organisation and a high level of collective knowledge (Erden, von Krogh and Nonaka, 2008). Such knowledge creation aims to integrate the knowledge and expertise of highly skilled group members for generating new knowledge or novel solutions to unfamiliar problems, i.e., problems that cannot be faced using current knowledge.

Improvisational theatre also is the most apropos for understanding collective and temporary knowledge creation, which occurs among a 'collection of people' (Erden et al., 2008). It means that the group comprises members who are strangers; thus, it does not have shared practices or developed collective knowledge. Such ad-hoc

knowledge creation aims to produce highly novel, out-of-the-box ideas or solutions by relying on improvisation and diversity in the group. Scholars emphasise that creativity and innovation (e.g., Harrison and Klein, 2007), as well as team creativity, benefit from diversity (e.g., Harvey, 2014), so that the higher the diversity in a group, the more likely highly creative and outstanding outcomes can be achieved. In addition, various collective, idea-generating events, such as innovation camps, aim to involve a wide variety of actors in generating novel ideas or product concepts -- the kind of knowledge creation conducted among a 'collection of people' (e.g., Erden et al., 2008) who often are strangers.

In the literature on improvisation, different degrees or types of improvisation have been identified (e.g., Weick, 1998; Zack, 2000; Hadida et al., 2014). However, we suggest that our distinctions between the three different ways to use improvisation, informed by theatre practice, go beyond mere indication of the degree of improvisation. They address, in detail, the context and organisational situations in which particular types of improvisation are applied, as well as the roles of different members and the skills required from them. They demonstrate a variety of options that all can inspire organisations, depending on their needs and capabilities. In this respect, they can be seen to represent different kinds of knowledge creation or creative (artistic) processes: the directed/managed creative process, temporary/mixed creative process and emergent/collective creative process.

The value of these knowledge-creation processes depends on needs and goals. The need derives from the purpose at hand and the required knowledge, i.e. people involved, ranging from collection of people to mature specialist group. While improvisation is embed as a daily normal in a specific and mature creative groups (Erden et al., 2008), it takes different and less embed appearance in wider organizational settings. However, it can be argued that organisations can and should use and involve more improvisation in their creative processes, either as a tool or technique, or even as a performance when it is demanded. While the emergent/collective creative process refers to knowledge creation in a collective and self-organising specialist group, the temporary/mixed creative process, involving both improvisational and crystallisation phases, serves well as a model for the flexible, participatory and agile creative process.

We can conclude that theatrical improvisation, as an artistic practice and a process, resonates in varied forms of organisational knowledge creation. Moreover, we

suggest that the theatre process deserves more detailed attention from organisational scientists and managers as a source of inspiration and recommendations on how to achieve flexible and responsive (i.e., agile) creative processes and improve improvisational skills within organisations.

CONCLUSIONS

In the present paper, we examined knowledge creation through improvisation, akin to Kamoche and Pina E. Cunha (2008), who placed improvisation into the core of organisational knowledge creation. We also empirically explored improvisation in the realm of theatrical improvisation. Specifically, we explored what theatrical improvisation is in practice and how it is used to produce artistic theatrical performances. Our findings demonstrate that there is not just one theatrical improvisation process, but many. To complement existing studies on knowledge creation, we identified three distinct artistic processes that involved theatrical improvisation, and we proposed that these artistic processes represent three kinds of knowledge creation. This serves to show that there are several ways to use and involve improvisation and several types of knowledge-creation processes, reflecting the increased need to create new knowledge in many kinds of collaborative realms.

A crucial feature of improvisation in terms of knowledge creation is its capacity to capture the seeming paradoxes of knowledge creation, i.e., the ability to merge or balance opposing tendencies, e.g., planning and acting or efficiency and adaptability (Weick, 1993; Zheng et al., 2011). This feature also is crucial for knowledge creation, as it overcomes limitations of pre-defined planning (Weick and Quinn, 1999) and increases flexibility and agility (Hmieleski and Corbett, 2006; Montuori, 2003; Weick and Roberts, 1993; Fisher and Amabile, 2008; Nisula and Kianto, 2015). Knowledge creation, as improvisation, also merges individual and collective levels in the sense that individual improvisers simultaneously are sources of collective knowledge creation (Nisula and Kianto, 2018), influenced by the collective and thereby indicating a mutual constitution.

The framework presented here is a useful analytical tool for exploring artistic processes as knowledge creation. It is concerned with the different ways to utilise theatrical improvisation in practise, rather than as a mere metaphor. Our framework

helps shed light on how creative groups use improvisation to encourage imagination, creativity and co-creation, while simultaneously exerting direction toward desired goals.

This paper contributes to the discussion on organisational knowledge creation by understanding knowledge creation as improvisation and by shedding light on the relatively neglected aspect of how theatrical improvisation is conducted in practice. Thus, it contributes to organisational knowledge-creation literature (Nonaka, 1991, 1994; Nonaka and Takeuci, 1995; Nonaka and Toyama, 2003; Erden et al., 2008) by identifying three major types of organisational knowledge creation and by shedding light on the improvisational nature of knowledge creation. In addition, our research contributes to knowledge-creation theory (Nonaka and Toyama, 2003) by empirically illustrating the improvisation-based knowledge-creation process as dialectical, comprising dynamic interactions between participating individuals, and able to integrate various contributions and perspectives into an entire performance. Furthermore, this paper addresses interpersonal (collective) knowledge creation, thereby contributing to the literature on organisational improvisation, within which the interpersonal level receives the least attention (Hadida et al., 2014). It also increases understanding of the interactional mechanisms through which collective knowledge-creating groups can be elicited. Finally, our research builds a novel link between organisational knowledge creation and theatrical improvisation, providing direction for future studies in knowledge creation and in shaping knowledge-creation theories.

What can practicing managers learn from this study? Indeed, today more than ever, managers in any type of organisation are faced with the difficult task of balancing the tensions of efficiency and innovation, and controlling and enabling. The three forms of utilising improvisation in three theatrical processes represent distinct ways of solving these tensions. The solutions range from director-centric traditional theatre, to the alternating devised theatre, to self-organising improvisational theatre. Perhaps the greatest flexibility can be achieved if leadership takes different leads at different times (Crossan, 1998) – switching from one form of improvisation to another in a prudent, contextual manner. Therefore, we suggest that achieving higher levels of dynamism requires that companies use these artistic processes and forms of organising fluently in various combinations and in varied ways, i.e., fluently shifting between these modes according to situation and need. Indeed, the companies capable of improvisation are agile, i.e., prepared for emergence and able to utilise experimentation, improvisation,

co-creation and ad-hoc problem solving to master their business requirements. It is likely, that by relying on their agile capacities, they would be more encouraged to capture emerging opportunities and outperform their competitors while expanding their businesses.

This study's limitations include the meagre number of interviewees. However, improvisation in theatres is not utilised to a great extent apart from training, and our interviewees represented a key group of theatre professionals with extensive practical experience in utilising improvisation through their work. Furthermore, after analysing the data, we noticed that many interviewees discussed very similar issues among themselves. Thus, engaging with more interviewees probably would not have elicited significant new information. Second, while we did identify three modes of utilising improvisation in theatre groups, there may be many more. We have only just begun the journey toward understanding improvisational processes within organisations, with much yet to be done. The future studies could study, for example, how arts-based methods, like theatrical improvisation, can be used and be applied to increase innovation and creativity also in traditional organizations; what are the limits and application of such methods outside the realm of theatre performances; and how mangers can be trained to apply such methods.

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APPENDIX

Key questions in the interview agenda (a selection)

- How do you use improvisation in your work?

- Define *improvisation* (according to your own opinion)

- Define *good improviser*

- What are the most important factors/elements of improvisation?

- What *are the possibilities of improvisation in contexts other than in theatre*?

- How do you train with improvisation?

- Concerning how the group ensemble is developed, do you have any experience with that?