

The emergence of collective reflection as a dynamic practice: Increasing organizational awareness over time by dealing with surprise¹

Abstract

Collective reflection has been a long-term issue for scholars and practitioners. Yet, being conceptualized as a shared, discursive practice that is dynamic and supported by structures in organizing, existing studies fall short on explaining and illustrating empirically how collective reflection emerges as such a practice in organizations over time. We apply a Heideggerian-inspired practice perspective to address this gap. Drawing on a longitudinal study of a lean implementation in a Swiss regional hospital, we illustrate the development of various communicative platforms and coordinating mechanisms and explain how these together and over time result in an increase in organizational awareness. The research generates two core insights: First, we empirically identify that collective reflection results from coping with different types of surprises: communicative platforms are established or further developed over time as a reaction to surprise. Second, we show how coordinating mechanisms allow collective reflection to travel through time and space in organizing. These insights complement and extend existing theory on collective reflection in organizations in three important aspects: we explain and illustrate the emergence of collective reflection as a practice, we propose and illustrate collective reflection as active communicative structuring and as a knotted net of activities. We conclude by discussing boundary conditions, future research and practical implications.

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Introduction

Collective reflection has long been considered important for management and organizations (Cunliffe & Jun, 2005). Studies have for example explored the role of collective reflection in innovation (Obstfeld, 2012), routine performance (Dittrich, Guérard & Seidl, 2016), organizational change (Bucher & Langley, 2016), organizational learning (Antonacopoulou, 2004; Vince 2002) or strategizing (Hendry & Seidl, 2003). Collective reflection is key to managerial work, particularly given the little time organizational members have for joint reflection within daily organizing (Yanow & Tsoukas, 2009). Reflection matters across organizational contexts: for example in public administration (Cunliffe & Jun, 2005), hybrid organizations (Jay, 2013), private companies (Lüscher & Lewis, 2008) or pluralistic organizations (Tucker & Edmondson, 2003).

Given its importance, it is crucial to understand how collective reflection emerges over time. This then provides insights into how to deliberately design collective reflection in organizations². Our review of collective reflection in organizations revealed that collective reflection is mainly conceptualized as a shared, discursive practice to question taken-for-granted assumptions of organizing aiming to increase organizational awareness (Heintel & Krainz, 2011) to finally improve firm performance. It is a dynamic process that is supported by organizational structures, which allow for dialogue. However, we need to know more about how collective reflection emerges as such a dynamic practice supported by organizational structures over time. Examples of different activities of collective reflection may include strategic dialogues, reflective talk within daily organizing, quality management, or process management practices, among others.

To understand how collective reflection emerges as a dynamic practice in organizing over time, we draw inspiration from the practice approach (Nicolini, 2012; Nicolini & Monteiro, 2017). By focusing on different concrete activities, this approach enables us to bring the implicit nature of collective reflection to the fore (Yanow & Tsoukas, 2009) while “explaining social phenomena in a processual way” (Nicolini, 2012, p.9). As others have shown before, Heidegger’s thinking is particularly conducive for inquiries that take practice seriously (Cunliffe and Easterby-Smith, 2004; Weick, 2003; Yanow & Tsoukas, 2009). By drawing on Heidegger’s (1962) notion of *Being* as absorbed in action³, we study the emergence of collective reflection as a dynamic practice in organizing. Our focus is on the establishment and the development of different organizational structures, namely communicative platforms and coordinating mechanisms. These structures result from surprise and allow for dialogue among organizational members.

We apply this perspective to study the implementation of a lean management initiative in a hospital in Switzerland over a three-year period. Given our initial interest in lean management in healthcare and possible results for collaboration, we found ourselves amid what

² Many thanks to Jörgen Sandberg for this note.

³ Many thanks to Hari Tsoukas for this suggestion.

retrospectively can be described as different activities of collective reflection. Drawing on our analysis, we show how collective reflection emerges as a dynamic practice over time: we illustrate the development of various communicative platforms and coordinating mechanisms as a reaction to different types of surprise and explain how these together and over time result in increasing organizational awareness (Heintel & Krainz, 2011). These insights complement and extend existing theory on collective reflection in organizing in three important aspects: we explain and illustrate the emergence of collective reflection as a practice, we propose and illustrate collective reflection as active communicative structuring and as a knotted net of activities. We conclude by discussing boundary conditions, future research and practical implications.

Collective reflection in organizing

Many different scholars have contributed to our understanding of collective reflection in and around organizations. In the next section, we provide an overview by considering the meaning and organization of collective reflection in organizing. Overall, collective reflection appears mainly conceptualized as a shared, discursive practice to question taken-for-granted assumptions of organizing aiming to increase organizational awareness (Heintel & Krainz, 2011). It is enhanced by organizational structures that allow for dialogue. Yet we still know little about how collective reflection emerges as such a dynamic practice over time. We close this section by discussing how Heidegger's notion of *Being* offers a theoretical lens for theorizing the latter.

A shared, discursive practice

Multiple strands of literature have conceptualized collective reflection in organizations mainly as a shared practice (Jordan, Messner & Becker, 2009), which is necessary for contemporary organizations to survive in the long run (Cunliffe, 2009; Pässilä, Oikarinen & Harmaakorpi, 2015). Collective reflection is defined as collectively 'stepping back' (Raelin, 2001: 11), in order to question taken-for-granted assumptions about organizing (Cunliffe & Jun, 2005). Studies have largely concentrated on retrospective, detached, selected settings that induce reflection-on-action (Yanow & Tsoukas, 2009): organizational settings (e.g., training sessions or strategy meetings), in which a selected group of co-present actors (Gutzan & Tuckermann, forthcoming) jointly step back outside of ordinary ongoing operations to question taken for granted. In this sense, collective reflection aims to uncover what otherwise would remain hidden. Similarly, Heintel and Krainz (2011) have referred to collective reflection as an increase in 'organizational awareness' – a kind of collective 'boost in awareness' that assists organizational members to escape their 'collective unconsciousness'. Hence, collective reflection is the collective capacity to question assumptions (Jordan et al., 2009) aiming to increase organizational awareness in order to finally improve overall organizational performance.

Previous studies have described this collective capacity as a discursive practice. This means that collective reflection implies that organizational members engage in dialogue and explicitly share observations or ideas (Cunliffe, 2009), sometimes called a learning dialogue

(Raelin, 2001). By focusing on the role of collective reflection in routine change, Dittrich et al. (2016) for example empirically show that talk supports the enactment of collective reflection: it enables participants to name and situate the issue to be discussed, to jointly imagine and explore alternatives and to evaluate and question these suggestions. This discursive notion of collective reflection, however, requires the co-presence of others (Jordan et al., 2009). In this sense, Yamauchi (2015: 742) has stated that collective reflection “refers to the fact that [...] organizing is done through talk, and that talk is an action that requires organizing”.

Viewed broadly, these different studies have departed from the notion of reflection as a mainly individual thought process (Holland, 1999; Høyrup, 2004) towards conceptualizing collective reflection as a shared, dialogical and embedded practice (Cunliffe & Easterby-Smith, 2004; Gorli, Nicolini & Scaratti, 2015; Pässilä et al., 2015). Yet, besides focusing on understanding collective reflection in retrospective, detached organizational settings, authors have called for more studies that include reflection-in-action (Jordan et al., 2009; Yanow & Tsoukas, 2009). Especially, empirical studies remain rare (Nicolini, Sher, Childerstone & Gorli, 2004).

A dynamic process supported by structures that allow for dialogue

Others, focusing more on the processes how collective reflection works in organizing, suggest that collective reflection is enhanced by organizational structures such as routines or activities that allow for dialogue (Segal, 2010; Gutzan & Tuckermann, forthcoming). For example, Korthagen (2005) has defined a ‘reflective organization’ as one in which people reflect continuously and on an organized basis. Elkjaer (2001, 2004) has argued that collective reflection implies ‘reflective learning’, which is supported by conditions that prepare and allow organizational members to sense uncertain situations and act accordingly. Following Nicolini et al (2004: 98), such a ‘structure that reflects’ are practices that mobilize dialogue as “cognitively and emotionally protected space that allow[s] participants to experiment with new ways of being at work”.

Some scholars, arguing for a more dynamic and performative understanding of organizing and organizational phenomena (Czarniawska, 2008; Feldman, 2000; Feldman & Pentland, 2003; Hernes, 2008; Tsoukas & Chia, 2002), have suggested answering how collective reflection develops or changes in organizing over time. One of the few studies that has empirically focused on the interplay of thinking and doing of collective reflection (Antonacopoulou, 2004) over time is Bucher and Langley’s (2016) study in the healthcare context. In their model of intentional routine change, they have shown the interplay of reflective and experimental action over a time period of about three years (Bucher & Langley, 2016: 594, our comments in brackets): “whereas reflective spaces are [...] geared toward developing novel conceptualizations of a routine [the ‘thinking’], experimental spaces enable the integration of new actions into routine performances [the ‘doing’]”. This rare empirical example has illustrated that collective reflection requires organized distancing *and* subsequent experimentation in organizing over time. Also for example Zundel (2013), who on the contrary takes a process philosophical lens on a conceptual level, has pointed out that we have

to do justice to the context-specificity and ongoing dynamics of organizations when considering how collective reflection works in organizing. Instead of applying individual concepts based on a Cartesian ontology (reflection-in-action and reflection-on-action) to understand collective reflection as a social and hence dynamic phenomenon, he has drawn on Ingold (2011) to suggest collective reflection as “walking around” (Zundel, 2013: 119).

Such studies have shed light on how collective reflection works in organizing. They have described collective reflection as a dynamic interplay of thinking and doing in organizing and more broadly as process. However, empirical examples of such supporting organizational structures are rare (Nicolini et al., 2004) and in particular, we need to understand how such structures interact over time (Gorli et al., 2015).

Toward how collective reflection occurs as a dynamic practice

Given previous research on what collective reflection is and how it works, we know surprisingly little about how it emerges as such a dynamic practice, which is supported by organizational structures aiming to increase organizational awareness over time. On an individual level of reflection on the contrary, we know that reflection emerges from surprise or breakdowns. According to Schön (1987) reflection is a sequence of four consecutive components (routinized action, encounter of surprise, reflection, and new action) to which practitioners respond to with improvisation (action that is entirely made up on the spot as an individual endeavor). Criticizing Schön’s notion of improvisation by arguing that the latter is not without preparation and “neither a purely solo activity, nor entirely cognitive” in organizational praxis, Yanow and Tsoukas (2009, p. 1345) further theorize the character of surprise and subsequent unfolding action for collective reflection from within organizing. Drawing on Heidegger, they describe three types of surprise: ‘malfunction’, ‘temporary breakdown’, and ‘total breakdown’. Each one brings forth a different type of improvisational response - from non-deliberate, spontaneous readjustments to more deliberate, explicitly intentional ones. However, “[de]tailed, ‘on-line’ ethnographic research is still needed to show empirically how different types of professionals and managers handle surprises in the midst of action, in different types of action, with what results” (Yanow & Tsoukas, 2009, p. 1360).

Heidegger’s notion of *Being* seems particularly useful to theorize the emergence of collective reflection as a dynamic practice in organizing. Authors in organization studies have shown that Heidegger’s thinking is particularly useful for inquiries that take humans embedded in practice seriously (Cunliffe & Easterby-Smith, 2004; Weick, 2003; Yanow & Tsoukas, 2009). For Heidegger (1962), *Being*⁴ is a being-in-the-world that is absorbed in the setting into which we find ourselves thrown into. Thus, according to Heidegger, everyday experience and organizational phenomenon more generally are for the most part “too close and too familiar to us, to compel attention” (Yanow & Tsoukas, 2009: 1342). As we learn a practice and keep

⁴ According to Heidegger (1962), *Being* is a fundamental structure in Dasein. *Being* is not an entity (‘What is being’ as an already entitative question). Rather, Heidegger (1962, p.65) denotes Dasein as the entity, which then needs to be understood with regard to its *Being*: “The ‘essence’ (‘Wesen’) of this entity lies in its “to be” (zu-Sein)”.

practicing it repeatedly, the ‘how to’ of that practice disappears over time from our focus, it becomes taken for granted (Segal, 2010; Yanow & Tsoukas, 2009), “covered up” (Cunliffe & Easterby-Smith, 2004: 35). However, when our everyday experience and hence organizational phenomena like collective reflection are consequently ‘invisible’, how then to recognize and examine them? For Heidegger (1962), it is in moments of disruption of the everyday that the everyday makes itself known to us. When everyday coping breaks down, we become attuned to the way of being-in-the-world implied in our coping, we become “face to face” with it (Heidegger, 1985: 233 in Segal, 2010: 379 ff.). Such disturbances produce “an affective state [...] that focuses awareness and attention” (Yanow & Tsoukas, 2009: 1351) in which we do not think about our practice from a disengaged position looking at an objective, abstract concept that is independent and separate from us. “Rather, [we] are making explicit [...] that in which [our] being [...] is ‘at stake’ (p. 63) and ‘in question’ (p. 63)” (Segal, 2010: 380 referring to Heidegger 1985). Therefore, understanding how collective reflection emerges as a dynamic practice in organizing through a Heideggerian lens implies to focus on surprises, breakdowns, and subsequent action over time.

Although offering promising perspectives on collective reflection in organizing, research so far has mainly described collective reflection as shared, discursive practice that is dynamic and supported by structures, which allow for dialogue. It has not explicitly addressed how such a shared practice and its supporting structures emerge over time. We use Heidegger to study the emergence of collective reflection as a dynamic practice in organizing by focusing on the establishment and development of different organizational structures or “activity sets” (Yanow & Tsoukas, 2009: 1347), which are sparked by surprise and allow for dialogue. By investigating collective reflection in a longitudinal, empirical study, we hope to approach collective reflection as a dynamic process, in its becoming.

Methods

The setting for our study was a Swiss regional state hospital that we call HOSPITAL. It treats around 17'000 inpatient and 70'000 outpatient patients annually with its more than 2000 employees. After his study trip (besides others to Virginia Mason Centre Hospital in Seattle, a pioneer in lean hospital (Blackmore, Mecklenburg & Kaplan, 2011)), the HOSPITAL's CEO - supported by an external lean consultancy - introduced lean management in the annual strategy meeting in June 2013 as a hospital-wide initiative. Generally, lean management describes the principles and approaches of the Toyota Production System (Womack & Jones, 1996) and often includes widely known ‘tools’ such as just-in-time delivery, improvement strategies like Kaizen, the Kanban method (a scheduling system for just-in-time delivery), waste audits or standardizations (Hines, Holweg & Rich, 2004; Pettersen, 2009; Womack & Jones, 1996). In healthcare, lean is defined as “enhancing process steps that are valuable and essential for patient care” (Poksinska, 2010, p. 322) while eliminating waste from patient pathways. The goal is to increase quality, safety and efficiency (Papadopoulos, 2011), and to foreground the patient (Womack and Jones, 1996). Together with his management team, the CEO defined five pilot projects among which was the emergency care unit (ECU).

We selected this setting for several reasons. First, hospitals are prototypical pluralistic organizations (Denis, Langley, & Rouleau, 2010), which are characterized by diverse healthcare but also non-healthcare experts, each with different perspectives and expectations while pursuing different interests (Denis et al., 2007). This specific setting demands collective reflection processes in order to ensure that the various experts of a rather decentralized value creation process are aligned with the HOSPITAL's overall aim of successfully treating patients (Rüegg-Stürm & Grand, 2017). Second, lean generally emphasizes a perspective along the patient path (Liker, 2004; Ortmann, 1995; Womack & Jones, 2003). Yet, medical care in pluralistic hospitals is mostly organized in different departments with their sub-units. Thus, collective reflection is likely to emerge as lean requires healthcare professionals to shift their perspective from specific treatment situations to a joint perspective on overall patient treatment. According to the CEO⁵, lean at the HOSPITAL aimed at a strong orientation towards the patient path “instead of the different experts building up processes around themselves”. Furthermore, most applications of lean in healthcare so far have occurred in the US, followed by the UK and Australia (Brandao de Souza, 2009; D’Andreamatteo, Ianni, Lega & Sargiacomo, 2015). The HOSPITAL is one of the first implementers of lean in Switzerland. More generally, organisational change initiatives like lean are well known to trigger joint processes of reflection (Cunliffe & Jun, 2005). Third, the ECU itself is a highly pluralistic setting: at the HOSPITAL, the ECU is one unit within an interdisciplinary department, which entails specialized units like anesthesia, intensive care or emergency care. Specific senior experts of the respective field head each of these units whereas the chief physician of the largest unit (anesthesia) heads the department. In Switzerland, ECU's are often run by a shared leadership of surgery and internal medicine, which results in ambiguous power relations and a permanent source of conflict. This demands collective reflection in order to ensure successful patient treatment. This might be one reason, why emergency care units are often investigated regarding lean in healthcare (Kim, Spahlinger, Kin & Billi, 2006). Together, this setting allows us to approach how collective reflection emerges in the pluralistic setting at hand.

Data Collection

Understanding how collective reflection emerges as a practice over time requires attending to the activities through which it is performed over an extended period. Thus, with fellow researchers, the first author collected data at the ECU of the HOSPITAL from a variety of sources including observations, semi-structured interviews and archival data (Yin, 2003) over three years. This provided us with an extensive real-time record of events, activities and people involved in the implementation of lean at the HOSPITAL. During data collection, we continuously made sense of our observations, kept notes and discussed them with the larger research team, but also with the healthcare professionals. We used these emerging insights to guide our further data collection activities (Flick, 2015).

⁵ This information stems from a presentation held by the CEO in spring 2016 within the scope of an event for Swiss executives in healthcare organized by our research team.

Our 55 observations include participant observation of meetings (e.g., board meetings, strategy retreats, nurse workshops), shadowing (e.g., of physicians or nurses at the ECU), validating sessions and participant observation of external presentations. Observations allowed us to observe activities as they emerge. Observations of meetings enabled us to follow activities over time and to probe for emerging topics and research opportunities. The first author and another researcher shadowed 10 days on-site to capture the “brief, fragmented, varied, verbal and interrupted nature of organizational life” (McDonald, 2005, p. 6) in order “to gain an understanding of the routines, language, and experiences of those within the setting” (Hall & Freeman, 2014, p. 7).⁶ Shadowing also enabled access to domains and topics one might not have considered before (Gilliat-Ray, 2011; McDonald, 2005). We refrained from recording for privacy reasons; rather we wrote detailed field notes to capture the richness of the conversations. The researcher’s presence at the ECU was quickly accepted – maybe because we always decided on research activities (e.g., whom to shadow) in close collaboration with the healthcare professionals and jointly reviewed our emerging data regularly.

We conducted 45 semi-structured interviews with the medical professions and nurses involved across the hierarchy at the ECU as well as with administrative staff like the lean manager or ward secretaries to complement our rich observational data. This number of interviews does not include the various informal conversations that became part of our observations. We applied interviews as a relatively systematic way of getting to know the individual’s perspective, to test and learn more about our emerging understandings and to contextualize our observations. The face-to-face interviews (with the exception of our first interview, which we conducted via phone), which we gradually sampled (Flick, 2015), lasted between 30 and 80 minutes and were tape-recorded.

Additionally, we made use of archival data like meeting minutes, presentations, invitation letters, flipcharts, brochures or working documents. Overall, we collected 223 documents – not counting our regular e-mail correspondence with the ECU board members. We mainly used the various documents to develop first hypothesis, to ensure that we understood our interview partners correctly and to identify transition points in the research process, which we then probed for in the interviews and observations. We were granted open access to external and internal documents and were included in the recurring communications upon request (e.g., concerning invitations to or documentations of meetings). Sometimes we took along documents while observing – for example while observing meetings in order to structure our field notes.

Data Analysis

We analyzed our data in parallel and after data collection. As others have noted, analysis of qualitative process data is messy (Langley, 1999). Accordingly, we circled back and forth

⁶ Also see Gutzan (2017).

between our rich empirical material, the emerging interpretations and the literature. Thus, our resulting analysis was a process of synthesis and can be described in the following four steps.

First, we coded the different observed activities over time and developed descriptive codes to provide an overview. At this early phase of analysis, we were confronted with an immense amount of data. To cope with this database, we decided to focus on communicative platforms (Rüegg-Stürm & Grand, 2017) to better understand how lean became constructed while being implemented at the ECU. With communicative platforms, we refer to activities that allow for moments of collective reflection similar to what Bucher and Langley (2016) conceptualize as spaces. What we learned in this phase was that ‘lean’ was rather a series of disconnected activities for the healthcare professionals.

Second, having noticed the various actors involved, we constructed a visual map (Langley, 1999) of the key activities observed and the people involved. Figure 1 is a selected extract from this visual map.

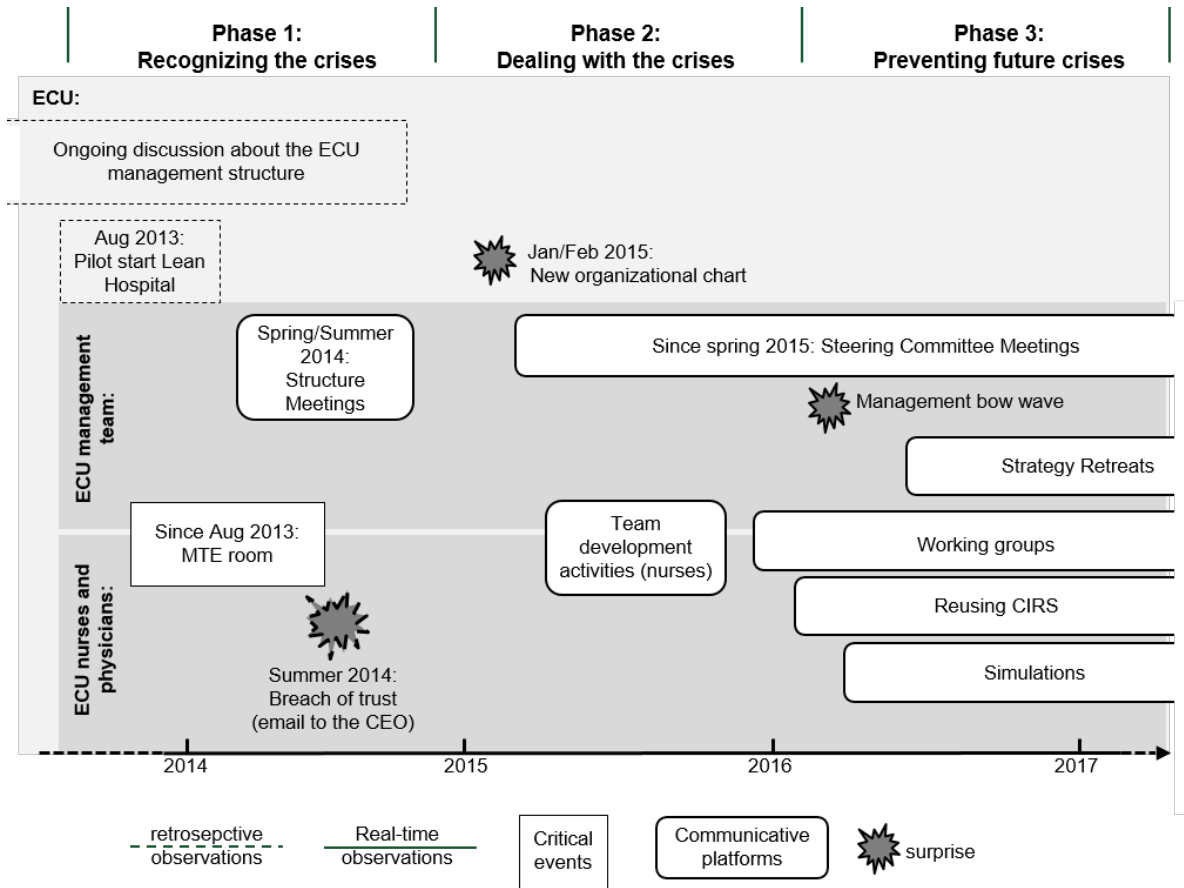


Figure 1. Visual map.

We looked for key activities, which punctuated the process from the perspective of the healthcare professionals. Although we observed many unplanned developments, some activities were perceived as critical (a breach of trust or a new organizational chart) because they questioned the whole lean initiative or immensely influenced the work at the ECU. We later called these key activities “surprises” (see below). This resulted in three phases:

recognizing the crises, dealing with the crises and preventing future crises. For each phase, we focused on activities that occurred regularly or to which the healthcare professional referred to most often. These activities were (see Figure 1): a letter to the CEO; ignoring the MTE (medical team evaluation) concept or establishing and enacting meetings (phase 1)⁷; establishing meetings or initiating team development activities (phase 2)⁸; establishing working groups; re-using CIRS (critical incident reporting system); establishing simulations or strategy retreats (phase 3)⁹. Besides the various observed communicative platforms, Figure 1 displays some critical events (critical for the lean implementation process at the ECU).

Third, we engaged with the literature on lean in hospitals (specifically regarding lean as fostering collective reflection) and on collective reflection in organizations. Noticing that collective reflection is often described as a dynamic practice, we decided to apply the practice approach (Nicolini, 2012; Nicolini & Monteiro, 2017). Of the different ways of theorizing practice (Nicolini, 2012), we define practices as order creating complex wholes. As such, practices are composed of sub-components (e.g. activities) that are enacted in a specific context (Nicolini et al. 2012). Although practices embrace multiple actors and acknowledge their agency (Nicolini & Monteiro, 2017), practices are the unit of analysis (Nicolini, 2012). This is also when we realized that the turning points always occurred after bigger surprises (key activities perceived as critical from the healthcare professionals point of view). We thus engaged with the classification of surprises. We use Yanow and Tsoukas (2009) who distinguish malfunctions, temporary breakdowns and total breakdowns (see above). In this third phase, our data collection continued and we regularly checked our emerging interpretations with the healthcare professionals (Lincoln & Guba, 1985).

Fourth, in a round of more focused coding, we analyzed the identified communicative platforms in more detail and discovered relationships between the observed activities. Jarzabkowski, Kaplan, Seidl and Whittington (2016a) were particularly useful in order to classify the communicative platforms in terms of *who* participates, *what* they were about and *how* they unfolded. We added the activity's temporal rhythm (see *when* in Table 1). Additionally, Table 1 depicts different observed coordinating mechanisms. We define coordinating mechanisms in line with Jarzabkowski, Lê and Feldman (2012, p. 907) who show that coordinating mechanisms do not arise a priori but are constituted through ongoing practice: they are themselves “dynamic social practices that are under continuous construction”. This round of analysis unveiled that the different communicative platforms each provided the healthcare professionals with a new perspectives; for example on their

⁷ Other examples include *repelling lean by ignoring lean trollies*.

⁸ Other examples include *establishing and enacting Gemba Walks*. Gemba walks are a lean shadowing technique serving ongoing monitoring and evaluation. At the ECU, organizational members from different disciplines and hierarchies gather where a particular professional task is being performed and observe task execution aiming at continuous improvement. We do not report them here because we were not able to observe them directly at that time.

⁹ Other examples include *establishing and enacting Huddle Meetings*. A Huddle at the ECU is a joint daily oral exchange lasting only a few minutes in front of a dashboard displaying the most important daily figures (like bed occupancy, medical examinations, or deviations from standards).

collaboration, daily operational work at the ECU, their internal organization or their management praxis (see Table 1).

Table 1. Communicative platforms and coordinating mechanisms increase organizational awareness over time.

Communicative platforms	Who?	What?	When and how?	Coordinating mechanism	Provides a new perspective on...	Contributes to increase organizational awareness over time
Structure Meetings	Management team, head of the organizational development department, external moderator	Stabilizing daily life while Lean Hospital was implemented and developing a new organizational chart for the ECU	Meeting (sometimes with agenda), irregular (approx. monthly)	none	... how to organize themselves.	
Steering Committee Meetings	Management team (if any, with guests)	Operational and interdisciplinary coordination and development	Meeting (with agenda and protocol), bi-weekly;	<i>bottom-up engagement through systematic documentation; bottom-up involvement via a standardized request form</i>	... how collaboration and management are practiced at the ECU, and on how to optimize patient treatment	
Team Development Activities (nurses)	Representative of management team and nurses	Improve relationship between nurses and management team, collect bottom-up feedback	One-time workshop, barbeque, team meeting	<i>personal presence guaranteed the transfer of information</i>	... other professions' and other hierarchical positions' concerns and needs	
Working Groups	Representative of management team and nurses, sometimes with physicians	Working on current challenges e.g., triage	Group work, approx. bi-weekly	<i>regular agenda item in the Steering Committee Meeting; personal presence guaranteed the transfer of information</i>	... other professions' and other hierarchical positions' concerns and needs regarding specific topics, and on how to optimize patient treatment	
CIRS	Nurses and physicians	Establishing a culture of constructive criticism and feedback	On demand (using IT tool), review bi-monthly	<i>regular agenda item in the Steering Committee Meeting</i>	... on how to optimize patient treatment	
Simulations	Representative of management team, nurses and physicians	Thematic training e.g. shock room exercise, interdisciplinary exchange	Structured test run, approx. bi-monthly	<i>personal presence guaranteed the transfer of information</i>	... other professions' concerns and needs	
Strategy Retreat	Management team (if any, with guests)	Organizing and developing strategic topics and communicative settings	Two-day meeting, approx. twice a year	<i>regular agenda item in the Steering Committee Meeting; personal presence guaranteed the transfer of information</i>	... how to organize themselves.	

Increasing organizational awareness by dealing with surprise

Overall, our case suggests that collective reflection results from coping with different types of surprises over time (see Figure 2). Firstly, our findings show that different communicative platforms are established or further developed over time as a reaction to surprise. These platforms allow for moments of collective reflection (i.e. they increase organizational awareness in different ways). Secondly, our case unveils, that the establishment of coordinating mechanisms allows either to reach out to other organizational members who were not present at that moment of collective reflection, or to link the different communicative platforms. Such coordinating mechanisms facilitate collective reflection to travel through time *and* space within organizing (i.e. to other communicative platforms and

different organizational members). In sum, our analysis shows that together and over time, the different communicative platforms and coordinating mechanisms result in an increase of organizational awareness.

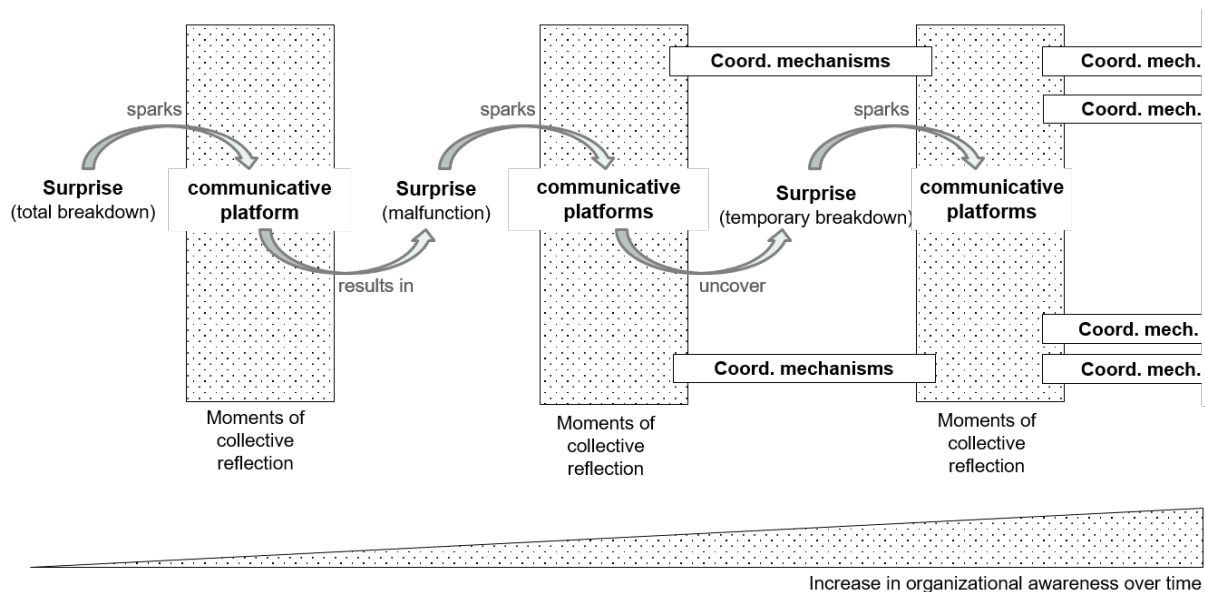


Figure 2. A case history: increasing organizational awareness over time by dealing with surprise.

In the following, we will show that the healthcare professionals in our case built up a communicative structure that increases their organizational awareness over time by establishing and further developing communicative platforms and respective coordinating mechanisms in reaction to different types of surprises. For each episode, we sketch out the surprise observed, we describe the communicative platform(s) and how they increase organizational awareness and present the coordinating mechanisms(s), if appropriate.

Episode 1: Recognizing the crises

The first episode was characterized by a “breach of trust” (ECU nurse) between the ECU nurses and the management team of the ECU at the beginning of 2014, which resulted in the establishment of so-called Structure Meetings (see Figure 1).

Total breakdown: the ECU nurses’ email to the CEO

Over a period of many years, the ECU nurses, physicians and management team have discussed how best to organize their interprofessional and interdisciplinary work at the ECU, which so far was led by an internist. Shall the ECU be led by one profession (e.g. internal medicine), or equally by the different professions (surgeons, internists and nurses), or even dominated by the permanent staff (nurses)? Informal discussions about the organization of the ECU have thus been ongoing before our accompaniment started at the ECU in April 2014 (hence see dotted lines in Figure 1).

Since the pilot start of lean management at the ECU in August 2013 (see Figure 1), the construction and usage of a new medical team evaluation (MTE) room was central to the external lean consultancy’s lean concept for the ECU. For efficiency and safety reasons, the

MTE room was supposed to be used by ECU internists and surgeons as well as by ECU nurses to *jointly* evaluate incoming patients before their further treatment at the ECU. For example, an assistant physician (surgery) told us:

„Exactly, three people have to attend [a surgeon, an internist and a nurse]. This means that they are available at the same time! And all of them also have different other divisions where they simultaneously have to be.”

However, as originally requested by the HOSPITAL’s CEO, the lean consultancy mainly focused on implementation speed: “He [an external consultant] is always like ‘quick, quick!’” (Head nurse of the ECU). The healthcare professionals at the ECU were not able to adapt to this time pressure while simultaneously maintaining daily operations. The newly built but vacant MTE room turned lean management into a “taboo word” (Head of organizational development) at the ECU.

The breach of trust between the ECU nurses and the management team of the ECU hence has to be interpreted in the light of these developments. It reached its peak in a protest email that the ECU nurses sent directly to the HOSPITAL’s CEO as the deputy head nurse reports:

“A breach of trust happened between the team [the ECU nurses] and the ECU management [internist and surgeon]. That very clearly was a big incident! It was the first time that a letter went up to the CEO.”

In this email, the ECU nurses complained about their working conditions at the ECU, their missing management support in day-to-day work but also more specifically concerning the lean management implementation. As one of the nurses explains, they explicitly informed the CEO that they no longer felt capable of ensuring patients’ well-being at the ECU:

“[...] the mood was terrible, we were not satisfied, partly overstrained, did not have enough personnel and then our nursing job became dangerous. I told my former boss, that several times I was forced to dangerous nursing practices and that I have not experienced that before [in other hospitals] [...] Everything was repelled. [...] A small example: in case of an emergency, the patient wears a small, orange colored signal [...] because you do not know their names and numbers. The police and fire brigade also works with that. [...] I asked my boss: ‘where is the signal?’ You know what he said? ‘In my office’. But, his office is locked. Then I said: ‘but [name of former head of ECU], you are only here within office hours! What about emergencies at night’ [...] He did not react!”

We interpret the ECU nurses’ email to the CEO as a ‘total breakdown’ (Yanow & Tsoukas, 2009) because involved deliberation was no longer effective. Compared to other forms of surprise (Yanow & Tsoukas, 2009), the ECU nurses were not immersed in the task at hand while coming up with the idea and finally formulating and sending the email. Rather they saw objects (e.g., ‘the’ surgeons, ‘the’ internists, ‘the’ ECU management) and isolated properties of objects (e.g., ‘are *always* late’, ‘*never* come’, ‘do not care about lean *at all*’) from a detached position. They completely interrupted their work and shifted to a more analytical stance on the problem as they tried to comprehend the underlying mechanisms involved to solve their problem.

A new communicative platform and how it increases organizational awareness

As a reaction to this breakdown, which was recognized by management very late and thus immensely impacted the whole ECU, so-called ‘Structure Meetings’ were established¹⁰ (see

¹⁰ Another communicate platforms that was enacted around that time were Gemba walks.

Figure 1 for an overview and Table 1 for more details). These provided a communicative platform to discuss the existential situation at the ECU while lean management was further implemented. An external facilitator and the HOSPITAL's head of organizational development were asked to lead these extraordinary meetings. Other participants included the senior internist as the head of the ECU, the senior surgeon of the ECU (deputy head of the ECU) and the head nurse and his deputy. This group of participants allowed to explicitly address the challenges of interprofessional and interdisciplinary collaboration.

These Structure Meetings lasted between one and two hours and took place about once a month in an irregular rhythm in spring and summer 2014. As the head of organizational development noticed, the participants recognized that they first needed to decide on a suitable interprofessional management structure for the ECU, before further focusing on the lean implementation:

“That’s why in spring I said: stop, we do have a totally different problem here which strongly influences our lean implementation. We have to look at the management structure of the ECU! [...] Actually, we called to stop the lean implementation for a while.”

Accordingly, the first Structure Meetings mainly focused on the challenges with implementing lean management while the later meetings mainly were about a new management structure for the ECU. Enacting the Structure Meetings, thus, resulted in decoupling discussions about lean management from discussion about a new management structure for the ECU.

Establishing this communicative platform allowed the ECU healthcare professionals to focus on how they need to organize themselves in order to eventually improve patient treatment at the ECU with lean management. Thus, establishing and enacting the communicative platform of Structure Meetings provided the healthcare professionals with a new perspective on how to organize themselves. This contributes to increase organizational awareness.

Episode 2: Dealing with the crises

The second episode was characterized by the formation of a new ECU management team, their establishment of so-called ‘Steering Committee Meetings’ and their nurturing relations with the nurses (see Figure 1).

Malfunctioning: a new management team for the ECU

After intense discussions, the participants of the Structure Meetings suggested a new organizational chart for the ECU to the HOSPITAL's CEO. The majority of the participants agreed that the existing ECU management structure was insufficient to run and to develop the ECU. The hitherto structure consisted of one profession leading the ECU (internal medicine), while this internist worked half of his time for the ECU and the other half for his home department. Besides, a head nurse, a deputy nurse and a senior surgeon assisted him to coordinate day-to-day work at the ECU. As an alternative, the group of the Structure Meeting suggested to establish a management team at the ECU with a senior surgeon as the unit's head (who works 50 percent for the ECU and 50 percent in his home department, the surgery

department), a deputy head (a senior internist who works 50 percent for the ECU and 50 percent in his home department, internal medicine), a head nurse (who works 50 percent at ECU and 50 percent at the anesthesia unit) and her deputy (fulltime employed at the ECU). The executive management of the HOSPITAL approved the group's proposal.

Thus, by the turn of the year from 2014 to 2015 the official management structure at the ECU changed (see Figure 1). As a result, the previous head of the ECU and head nurse resigned as the new organizational chart was not their favored alternative. It took the new head of the ECU until April 2015 to re-staff both positions. Hence, the new management team of the ECU already started their work with still vacant positions at the beginning of 2015.

We interpret this transition period as a disturbance, as a 'malfunctioning' (Yanow & Tsoukas, 2009). The transition leaves the healthcare professionals at the ECU momentarily startled but they almost immediately shift to a new form of action that enabled them to cope with the surprise. While being immersed and absorbed in their daily tasks at hand, the new management team coped with this disturbance.

New communicative platforms and how they increase organizational awareness

After the new management team was officially in place, the Structure Meetings ceased, as the most pressing concerns that led to the breakdown seemed to be solved with the new organizational chart for the ECU. The new management team of the ECU also terminated the cooperation with the external consultancy. Instead, the new head of the ECU established a new communicative platform, the Steering Committee Meetings (see Figure 1 for an overview and Table 1 for more details) that he referred to in an interview:

"How do we want to organize this process of adapting to lean and establishing a new way of doing management while calming daily life down? We didn't have a platform to exchange about this, let alone to exchange among different disciplines and professions. That's why we thought we need a platform."

Hence, the Steering Committee Meetings were established. The goal was to react to the continuing difficult lean implementation while beginning to enact the new management structure that still required to prove its benefits for running the ECU. The new head of the ECU explicitly established this communicative platform to improve interprofessional collaboration:

"We are lacking this complete overview [...] It is like everyone only looks into his or her organ, so to speak [...] but it is like a tumor, it increases and exponentiates until someone pulls the rip cord and the house collapses [...] Well, yes, so to speak to work for this helicopter view, or you name it. Simply this outside perspective."

Accordingly, Steering Committee Meetings are interdisciplinary meetings consisting of the new ECU management team who all participate regularly. In addition, other colleagues from the HOSPITAL (e.g., from wards or from the rescue service) can be invited to the meetings on request. This allows for processing topics on-spot, creates personal commitment and interdisciplinary and cross-functional exchange. It is a bi-weekly meeting lasting for one and a half hours. A prepared agenda is distributed in advance. Invitations to the meeting take place via an agenda (topics, responsibilities and miscellaneous). At first, these topics mainly resulted from day-to-day work at the ECU, which was directly influenced by lean management (e.g., regulations for nitrous oxide, billing of outpatient cases or new shock room

light). Later, regular agenda items developed (e.g., update regarding personal situation). Consider for example the following extract from our observation of one of the Steering Committee Meetings:

Nurse: “Update about human resources [...]?”; Surgeon: “Yes we should do this every second month. Update on our personnel should be in every meeting. But then also an update on our construction work. I’m sure, other regular topics will emerge. [...] OK so we agree on: personnel, [...] and construction work [due to the lean implementation]. Best we do it at the beginning of each session.”

On the one hand, by introducing regular agenda items and more generally by establishing these Steering Committee Meetings, the new ECU management team developed the established ways of how management is practiced at the ECU while further adapting lean management. On the other hand, it provides an interdisciplinary possibility for exchange – particularly regarding optimizing their joint patient treatment given the lean management approach. In other words, establishing and enacting the communicative platform Steering Committee Meetings provided the practitioners with a new perspective on how to optimize patient treatment, but also on their own practice of collaborating and managing. Both contributes to increase organizational awareness over time.

Additionally, in this second episode, the ECU’s new management team initiated various ‘Team Development Activities’ with ECU nurses as another communicative platform (see Figure 1 for an overview and Table 1 for more details). They for example initiated a feedback workshop, carried out a team development seminar or organized an informal get-together. For example, the new head of the ECU reports from the feedback workshop with the new ECU management team and the ECU nurses:

„What thrilled me was that critique was noticeable before the workshop but somehow vague. However, throughout the workshop the staff recognized that we now start together into the future.”

With these activities, the new management team of the ECU aimed to process the breach of trust between the ECU nurses and the ECU’s former management team – particularly with the medical professions. Although, the personnel changes within the management team of the ECU already eased the situation. These Team Development Activities were extraordinary and each took place only once. Together, these different Team Development Activities provided protected environments to jointly and explicitly exchange about mutual expectations (Head of ECU):

“We have planned a workshop with the ECU nurses and the new management team in two weeks. We want to talk about expectations according to the motto ‘heading for new shores’ [...] we want to ask ‘what needs to be changed so that you still like working here [at the ECU]?’”

Thus, initiating the communicative platform of Team Development Activities with nurses offered the possibility to gain a new perspective on other professions’ and other hierarchical positions’ concerns and needs. In doing so, these activities contribute to increase the healthcare professionals’ organizational awareness over time.

Observed coordinating mechanisms

In this second episode, we observed coordinating mechanisms that allow reaching out to ECU members, who are not present at the moments of collective reflection and we observed coordinating mechanisms that link communicative platforms.

On the one hand, we observed two coordinating mechanism, which link the work of the new management team that is done in the communicative platform of the Steering Committee Meetings with the rest of the ECU. As a first coordinating mechanism, we observed *bottom-up engagement through systematic documentation*. The new head of the ECU's assistant documented every meeting in a written meeting minute. Each meeting started with a discussion of the previous minute. After the meeting, the new head of the ECU sent the revised minutes to the whole ECU team. In doing so, definitions of tasks, competences and responsibilities or general competences like process procedures, regularly and transparently reached the whole ECU team. A second coordinating mechanism that we observed was *bottom-up involvement via a standardized request form*, which the ECU's new head referred to in an interview:

“We thought we need a platform to exchange which guarantees regular coordination, information and feedback and that issues follow a structured way from them [the ECU team] to us [ECU management team] and vice versa.”

This standardized request form offered a possibility to include structured, written requests from the ECU staff for the agenda of the Steering Committee Meetings. A standardized form (with name of applicant, problem formulation, request, goal, personnel contribution and costs) can be submitted at any time by any member of the ECU and will consequently be considered in the Steering Committee Meetings. After the meeting, the decision or the state of the discussion was reported back via this form to the applicant. In doing so, and following the lean idea of Kaizen¹¹, all employees are asked to proactively share their ideas for improvement.

On the other hand, we observed that the communicative platform of Team Development Activities were coordinated with the communicative platform of the Steering Committee Meetings. In the first instance, the Team Development Activities were initiated in the Steering Committee Meeting. Furthermore, a representative of the new ECU management team through their *personal presence* in the Team Development Activities guaranteed the transfer of information between the two communicative platforms.

Episode 3: Preventing future crises

The third episode was characterized by a “management bow wave” (new Head of ECU) and the consequent establishment of various different - or the further development of already existing - communicative platforms and corresponding coordinating mechanisms (see Figure 1).

¹¹ Kaizen means continues improvement in terms of organizational members regularly and critically questioning their own tasks, work place and work conditions in order to continuously improve the overall organizational value creation (see Imai, 1986).

Temporary breakdown: the “management bow wave”

These different initiatives of the new ECU management team to encourage more bottom-up involvement was well received by the ECU staff (ECU nurse):

„We now have something to say upwards. We now have someone who understand us [...] they understand and then we search for a solution together and then it works [...] I feel much more protected, more comfortable, in good hands and more secure [...] I see change. I see a chance. I do my best with all my energy to help moving forward.”

However, it resulted in a in a very long to-do list that the new management team of the ECU was not able to process at that time. In one of our validating sessions, the new head of the ECU referred to this as the “management bow wave”:

„The management bow wave increases! [...] We learned from our lean implementation at the beginning of the project that we made the mistake not to reflect enough. Our nurses mirrored this. Nevertheless, I have the feeling that we still have room for improvement. However, with more joint reflection, the bow wave increases. How do we prioritize then? Every stone that we turn gives us new tasks to solve. Nevertheless, we are motivated to turn all stones. But prioritization and communicative vessels are important so that the other understand.”

We interpret this wave as a ‘temporary breakdown’ (Yanow & Tsoukas, 2009) because disturbance persists and involves a more focused consideration of what is being done. As the quote illustrates, the new management team stopped and considered what was going on and planed what to do, all in a context of involved activity (see Yanow & Tsoukas, 2009).

A communicative structure emerges

We present four communicative platforms (Working Groups, CIRS, Simulations and Strategy Retreats, also see Figure 1 and Table 1 for more details) as examples for others, which we observed in this third episode.¹² Together these different communicative platforms assist to further increase the healthcare professionals’ organizational awareness over time.

The new management team of the ECU initiated so-called ‘Working Groups’. These aimed to improve collaboration across hierarchies, professions and disciplines as well as to include and work on bottom-up involvement for dealing with recent challenges of the lean implementation. The following quote by the new head of the ECU from our observations of one of the Steering Committee Meetings illustrates this:

“They shall get rid of their blinkers and open up their perspectives [...] It is important that they [the ECU nurses] learn to listen to each other. That they not only identify problems but also learn to formulate these appropriately, jointly develop solutions and thus take over responsibility.”

The head nurse of the ECU and her deputy led these Working Groups with the nurses while also aiming to include senior internists and surgeons of the ECU. Having started as pilot projects consisting of ECU nurses to jointly work on adopting lean management as introduced by the lean consultancy, over time the practitioners used the Working Groups to regularly deal with pressing bottom-up topics. Over time, these Working Groups became an integral part of collaborating and dealing with lean management at the ECU as one of the ECU nurses reports:

¹² Other observed communicative platforms were for example Huddle Meetings.

“We are now allowed to participate on the topics we are interested in. They [the ECU’s management team] often announce working groups for specific topics. I already did some. We can volunteer for example if we want to take part in re-designing the shock room [...] We are much more involved now, which is great!”

We observed, that such Working Groups are clearly structured and enacted regularly:

Head of the ECU: “Ok, quickly coming back to agenda item three. I recognized that last week, [Name of the head nurse of the ECU] initiated the working group triage¹³ with the nurses, as you already know. They meet every second week [...] Now, there are still misunderstanding what the working group wants and what we [the ECU’s management team] expect [...] In order to not get out of control: we always have to define the task, the objective and the time horizon for each working group. We have to do that from now on formally correct each time.” [...] Deputy head of the ECU: “Who does the definition?”; Head of the ECU: “We do it. You can already start if you want. You can take the standard form, which we also use for our minutes. With headings, names, tasks, objectives, project completion. And also that we wish a regular feedback into the steering committee meeting.”; Head nurse of the ECU: “And also, that we wish that someone writes the minutes.”

On the one hand, establishing and enacting the communicative platform of Working Groups has provided healthcare professionals at the ECU with a new perspective on other professions’ and other hierarchical positions’ concerns and needs regarding a specific topic (e.g., triage process). On the other hand, these Working Groups aim to optimize jointly the patient treatment process at the ECU given the lean management approach (e.g., improving waiting times through a functional triage process). Both contributes to increase organizational awareness over time.

Another communicative platform that we observed in this third phase was CIRS. CIRS is an existing IT tool that the new management team of the ECU promoted as a useful instrument to establish a culture of constructive criticism and feedback. As an electronic system, all different members of the ECU use it on demand. CIRS already existed for years at the HOSPITAL. However, ECU members hardly used it. In line with Kaizen, the new management team of the ECU re-interpreted this system as a possibility for bottom-up feedback and for identifying possible organizational challenges. In other words, reusing CIRS was a response to coping with the remaining challenges with lean management, but also an attempt to recognize malfunctions earlier when their impact is still smaller and more local than the initial breakdown in 2014. The following extract from our observation of one of the Steering Committee Meetings illustrates this intended new use of CIRS (Head of ECU):

“Today in the afternoon we have the CIRS training - [name of the deputy head of the ECU] is doing that for us. We want to encourage our team to use it. We also have to encourage the physicians [...] CIRS isn’t a moaning system but a system for collecting regular occurring problems in order to solve them. It is about objectivity and not about blaming people [...] it is about the facts [...] You have to say that these incidents will be discussed at the steering committee meeting and that we will take action if it is something that is reported over and over again.”

¹³ Generally, a triage process helps to categorize patients according to the degree of severity of their injury when they enter the ECU. Different ECU nurses have been requesting such a standardized patient categorization process for a fairly long time. Lean management with its underlying principles that focus on process optimization provided an opportunity to take up this idea. The working group enabled the nurses to jointly work towards this goal in a structured way. Different triage systems were described and reported back to the Steering Committee, which then finally decided upon one of those, which was then introduced and tested as a pilot at the ECU.

The quote illustrates that in reusing CIRS, the healthcare professionals aimed at optimizing their patient treatment process by encouraging ECU members to report critical incidents. In sum, this shows that the communicative platform of CIRS offers the healthcare professionals a new perspective on how to optimize patient treatment at the ECU. In this sense, it contributes to increase organizational awareness over time.

Furthermore, the new ECU management team decided to regularly use ‘Simulations’ to train interdisciplinary challenges between the ECU nurses and physicians that the implementation of lean management unveiled. Thus, this communicative platform aimed to improve interprofessional and interdisciplinary collaboration in daily life at the ECU. The practitioners for example used shock room simulations in order to improve the collaboration between the different professions and disciplines within the ECU and to improve the treatment quality. We present an interview extract from an ECU nurse that illustrates the effect of establishing and enacting such Simulations:

“You go into a room and get recorded [...] Together with a group you get an exemplar case and have to work on that ‘patient’. Chief surgeons, assistant physicians, nurses – everyone works together. That is good for the interdisciplinary thing! Mainly you unveil communication problems, that’s fascinating! [...] Simulations are very powerful [...] We are doing that regularly at the ECU now, maybe about every second month. It is not necessarily the technical knowledge, but rather it is the communication, the appreciation among each other...because then suddenly you have to work in a very different setting with each other. Very different dialogues are emerging. The appreciation really changes when you analyze it afterwards together in the group. Also, a senior physician then sometimes says ‘I am sorry, you were right. I did not want to put it that way!’ You are surprised by your own behavior sometimes [...] That is absolutely exciting!”

This shows that Simulations take place approximately bi-monthly and are enacted in a rather structured way. It also illustrates that Simulations offer a possibility of a change in perspective. Over time, such Simulations became an integral aspect of daily life at the ECU:

Head nurse of the ECU: “The simulations work quite well in the meantime. I think, they [the ECU staff] already got used to it.”; Deputy head nurse: “Yes, I think it helps them to deal with it [with lean management, interdisciplinary challenges etc.]”

More generally, simulations work according to the core lean principle of distinguishing between observation and evaluation. Hence, by applying Simulations, the ECU management team encouraged their team to adapt useful elements of the introduced external lean approach for the ECU instead of ignoring the whole approach. Overall, the communicative platform of Simulations provides an interprofessional, interdisciplinary and cross-hierarchical exchange possibility. Thus, establishing and enacting such Simulations offers the healthcare professionals a possibility of a change in perspective. In doing so, Simulations assist to further increase organizational awareness over time.

The establishment of ECU ‘Strategy Retreats’ is a fourth example of a communicative platform, which emerged as a reaction of the management bow wave. Generally, establishing ECU Strategy Retreats aimed at broadening the perspective of the ECU management team as the new head of the ECU notes:

“I like this lean idea of working for a helicopter view. I think we should do that with a strategy retreat at least every year.”

The new management team used these retreats to organize strategic topics and communicative settings as the following extract of the preparation in the Steering Committee Meeting in November 2015 for the first strategy retreat in 2016 illustrates:

Head of the ECU: “What I want to do is, that we retreat for two days and mobilize some guests. We should take time to reflect and discuss our new management structure and the resulting management style; on our organization of the steering committee, specifically of our instrument of the steering committee meeting. For example, do we need separate meetings for [name of deputy head of the ECU] and me? We should define three annual objectives. Moreover, we should do such a retreat at least each year and define three strategic objectives. Additionally, we should at least discuss the following topics: [...] We do not need solutions on the retreat but directions of impact [...] I know it is a lot. I urge you to prioritize.”

This shows that the new ECU management team jointly aimed to shift their perspective in the upcoming strategy retreat from operative daily work to how they organize themselves. The following extract from our observations at the end of the second day of the first strategy retreat of the ECU shows that enacting Strategy Retreats became a regular practice:

Deputy Head of the ECU: “We should really think about doing this [a strategy retreat for the ECU] more than once. Maybe we can do another retreat this year?”; Deputy nurse: “We really have to take this extra time [two full days for a retreat] now. [...] It helps enormously.”; Head of the ECU: “Yes, it is not sacrificing.”; Head nurse: “Yes, really. Taking the time and not everyone runs off [like after the regular steering committee meetings of the management team at the ECU] again.”; Head of the ECU: “So then the question is: when shall we plan our next retreat?”

Accordingly, Strategy Retreats were executed regularly (approx. twice a year) mainly as a two-day meeting including all members of the ECU management team as well as selected invited guests. It takes place in a structured way: at a pre-defined place and time with specifically invited participants discussing pre-selected topics according to a defined schedule.

Overall, establishing and enacting the communicative platform of Strategy Retreats broadens the perspective of the ECU management team in the sense of shifting their perspective from operational challenges towards explicitly organizing strategic topics and communicative settings, which are used in daily operation to process their operational challenges. In other words, Strategy Retreats provide the healthcare professionals with a new perspective on how to organize themselves. Doing so contributes to increase organizational awareness over time.

Observed coordinating mechanisms

In this third episode, we observed two different coordinating mechanisms: either the various communicative platforms emerge over time as *regular agenda items in the Steering Committee Meetings*, or the *personal presence* of representatives of the ECU management team guaranteed the transfer of information between the different platforms.

For example, the new communicative platform of Working Groups was regularly monitored in the Steering Committee Meetings. Consider for example the following extracts from different invitation letters to Steering Committee Meetings:

5 May: agenda item three “order definition working group triage”; 2 June: agenda item fourteen “working group triage: adjustment of participants”; 1 September: agenda item eight and ten “animation movie working group triage” and “update working group triage”; 20 November: agenda item six “working group triage project completion in November”

In other words, monitoring the Working Groups became a *regular agenda item in the Steering Committee Meetings*. Another coordinating mechanism between the two communicative platforms (Working Groups and Steering Committee Meetings) was the *personal presence* of the head nurse in both platforms that guaranteed the transfer of information.

Similarly, CIRS activities are regularly discussed in the Steering Committee Meetings. Over time, a review of most important critical incidents was included as a *regular agenda item in the Steering Committee Meetings* on a bi-monthly basis:

Deputy Head of the ECU: “They reported different incidents over the past weeks [...] So, the first is about confusing drugs. The second is about a patient who was on the ECU with the wrong hospital wristband.”; Head of the ECU: “How can that happen?”; Deputy head nurse: “They must have overlooked it several times. You also ask the patient when he undresses whether it is the correct wristband – well if he is addressable. And you ask the patient again when you take him to the ward.”; Deputy head of the ECU: “The patient was addressable.”; Head nurse of the ECU: “[...] we have to discuss that in our next team meeting.”; Deputy head of the ECU: “Then, third: double blood sample. It was a patient who came from the [name of another part of the hospital]. They already took blood but then they had lunch and did not evaluate the sample. Then we had to do it again.”; Head of the ECU: “It might be better if the patient takes the sample with him. Maybe you [name of the deputy head of the ECU] could find out how the laboratory works at their place. Maybe then we can develop some solutions.”

The communicative platform of Simulations emerged in one of the Steering Committee Meetings following a request submitted by a nurse. Representatives of the ECU management team (depending on the topic or situation that is simulated) organized, participated in and reported from these Simulations to the steering committee. Hence, this communicative platform is coordinated with the Steering Committee Meeting because the *personal presence* of a member of the management team guarantees the transfer of information.

Finally, over time, Strategy Retreats became a *regular agenda item in the Steering Committee Meetings*. Additionally, the Steering Committee Meeting and the Strategy Retreats are communicatively linked by the *personal presence* of the whole ECU management team.

Discussion

This paper was motivated by the desire to understand how collective reflection emerges as a dynamic, discursive practice that is supported by structures, which allow for dialogue. Our detailed analysis of different communicative settings (communicative platforms and respective coordinating mechanisms) in the context of a lean management implementation in a hospital generated two core insights. First, we empirically identified that collective reflection results from coping with different types of surprises. In particular, our findings show that different communicative platforms are established or further developed over time as a reaction to surprise. Secondly, we show how coordinating mechanisms allow collective reflection to travel through time and space (e.g., reach out to other organizational members who were not present at the moments of collective reflection). Together, these findings explain how organizational awareness increases over time. With these insights, we complement and extend existing theory on collective reflection in organizing. Especially, our findings relate to three important aspects: the emergence of collective reflection as a practice,

collective reflection as active communicative structuring and collective reflection as a knotted net of activities.

The emergence of collective reflection as a practice

The emergence of collective reflection in organizing - in contrast to individual reflection that is dominated by the thinking pole - is mainly considered focusing on the interplay of ‘thinking’ and ‘doing’ (Antonacopoulou, 2004). Studies have mainly focused on a rather micro level of organizational life aiming to explain specific interactions within one (Edmondson et al. 2001; Obstfeld, 2012) or between a few activities of collective reflection (Bucher & Langley, 2016). However, when conceptualizing collective reflection as a discursive practice – hence, as an order creating complex whole made up of *different* activities (Nicolini, 2012; Nicolini & Monteiro, 2017) - we also need to consider a more macro view of the dynamics of collective reflection in organizing. This is challenging due to several reasons: first, actors engage in very different forms of collective reflection that allow them to accomplish different things (Dittrich et al., 2016). Collective reflection is hence distributed in organizing (Dittrich et al., 2016; Gutzan & Tuckermann, forthcoming). This means that we have to pay attention to the different forms of collective reflection and need to appreciate and understand their complementarity. Second, collective reflection is often implicit (Heidegger, 1962). Thus, a priori case sampling to observe – or even establish (Nicolini et al., 2004) - collective reflection is challenging. Our study extends previous research by empirically showing how collective reflection unfolds in its complex interplay of various activities over time.

Our empirical insights also echo the findings of other researchers that develop a notion of practice as it unfolds more generally. For example, Bjørkeng, Clegg and Pitsis (2009)¹⁴ analyze ‘practice’ as novel patterns of interaction developed into predictable arrays of activities, which change and transform over time. They identify three such arrays of activities, which are essential mechanisms in becoming a practice: authoring boundaries, negotiating competencies and adapting materiality. In our study, for instance, the Structure Meetings and consequent discussions about a new organizational chart for the ECU are one example of authoring boundaries. The practitioners also referred to this process in retrospect as “demarcation” (Head of ECU). Competences are negotiated in the Steering Committee Meetings, the Working Groups or in the establishment of the MTE (defining responsibilities of the different professions and disciplines). Materiality is for example adapted for the MTE (construction of a separate room). We advance this line of thought by showing that the development (establishment, further development and possible abolishment) and linkage of communicative settings is a key mechanism for the practice of collective reflection to emerge in organizing.

¹⁴ Many thanks to Lucia Garcia for this paper suggestion.

Collective reflection as active communicative structuring

Our study speaks to the discursive notion that lies at the heart of the debate of collective reflection (Cunliffe & Easterby-Smith, 2004; Pässilä et al., 2015; Reynolds, 1998). Particularly, we relate to those studies, which describe collective reflection as supported by organizational structures (Bucher & Langley, 2016; Elkjaer, 2001, 2004; Jordan, 2010; Korthagen, 2005; Nicolini et al., 2004). The description of such ‘structures’ may vary: for example, conditions that prepare and allow organizational members to sense uncertain situations (Elkjaer, 2001, 2004), protected spaces that mobilize dialogue (Nicolini et al., 2004), reflective and experimental spaces to develop novel conceptualizations and to integrate new action (Bucher & Langley, 2016) or monthly rotation through various sub-departments (Jordan 2010). Yet, they all share a dynamic underpinning of ‘structure’: they shape and are shaped by action (see Giddens, 1984). Also, they agree on a communicative nature of such organizational structures. Close to a systemic understanding of organizing with its focus on communicative processes (Rüegg-Stürm & Grand, 2017; Wimmer, 2004), we show collective reflection as communicative structuring of different communicative platforms and coordinating mechanisms over time. We refer to the outcome of this process as an increase in organizational awareness (Heintel & Krainz, 2011). This emphasizes the social - hence dynamic and communicative - character of collective reflection. It also includes the main purpose of collective reflection in organizing: bundling attentiveness of many different, locally and temporally distributed organizational actors to collectively step back in order to get the ‘big picture’ (their organization) back in view.

Additionally, our careful analysis relates to studies within the debate of collective reflection that suggest such supporting structures as the outcome of an active process on an organizational level of analysis. Gorli et al. (2015: 1351; emphasize added) for example, refer to managers and other organizational members “*as authors* of their organization’s social realities”. Relating to Cunliffe (2001), authorship relates to how managers move others to talk or to act in different ways through their dialogical practices. According to Cunliffe (2001: 352), managers “are concerned not merely with the design of organizational structures, systems, or goals, but with creating new possibilities for actions, new ways of being and relating”. In our study, the establishment (and further development) of communicative platforms and coordinating mechanisms illustrate how the ECU management team actively designed new organizational structures, or ‘new ways of being and relating’. Gorli et al. (2015) broaden the notion of authorship among managers to all organizational members and by including the social and material nature of organizational authorship within which discourse takes place and with which discourse is inherently entangled. The MTE or the Working Groups are empirical examples from our case that include organizational members besides the management as authors of collective reflection. Our case also provides empirical examples of such material aspects of organizational authorship: for example, bottom-up engagement through systematic documentation or via a standardized request form or regular agenda items. Applying a Heideggerian perspective underlines this active process of communicative structuring for collective reflection: as managers for example are mostly preoccupied with the demands and pressures of day-to-day activities, their way of being as a manager is in the background of their attention (Segal, 2010: 380). However, when routine is

interrupted by surprises, these “produce a caring, a mattering – an affective state – that focuses awareness and attention” (Yanow & Tsoukas, 2009: 1351). This affective involvement generates an active involvement. Thus, our study builds on and extends previous research by empirically showing collective reflection as an active communicative structuring process that includes different communicative settings and coordinating mechanisms.

Collective reflection as a knotted net of activities

Focusing on specific activities of collective reflection plays a crucial role in previous research about the meaning and organization of collective reflection in organizing. For example, Cunliffe has noted collective reflection as an embedded activity in various works (e.g., Cunliffe & Easterby-Smith, 2004). Others focus on specific manifestations of such collective reflection activities, while describing it as for example “collective voicing” (Päsilä et al., 2015, p. 81) or stepping back (Raelin, 2001). Empirically, previous studies mainly focused on single activities of collective reflection (e.g., Edmondson, Bohmer & Pisano, 2001, Obstfeld, 2012). Yet, Dittrich et al., (2016: 691) have empirically illustrated that “actors engage in very different forms of collective reflection that allow them to accomplish different things”. With our study, we contribute to these more recent developments within the debate of collective reflection by providing an empirical example of how collective reflection emerges as a practice, which constitutes of many different activities. We illustrate collective reflection for instance in meetings, in working groups, in more experimental activities like simulations but also in enacting CIRS as a technical tool. Each such activity involves different participants, has its unique purpose and setting (see Gutzan & Tuckermann, forthcoming). Only by appreciating and integrating these different activities can we approach collective reflection as a practice in organizing.

From a practice perspective, this multitude of activities is not new as practice is conceptualized as “unfolding nexuses of actions” (Nicolini, 2012: 168) or as order creating complex wholes composed of other sub-components (Nicolini, 2012; Nicolini & Monteiro, 2017). Other research traditions refer to these configurations of different activities as networks, nets, knots, or assemblages (Czarniawska, 2007; Gherardi, 2006; Latour, 2005; Nicolini, 2009a). Nevertheless, “more work will be necessary to document in detail how practices hang together [...], how they form assemblages, and how these assemblages are made durable and change over time” (Nicolini, 2009a: 1413). We already know that such “mediation” between the different activities can be either material or symbolic (e.g., use of language) (Nicolini, 2012: 107). We also know that activities that comprise a practice seem to be linked through four main mechanisms: practical understanding, rules, teleo-affective structure, and general understanding (Nicolini, 2012, 165; based on Schatzki). Yet, “further empirical work is necessary to shed light on the alignment and co-ordination of practices” (Nicolini, 2009a: 1413). We provide an empirical example for both: different activities of the practice of collective reflection and first insights of how they form a knotted net of activities over time (identified coordinating mechanisms). In line with Jarzabkowski et al. (2012), such coordinating mechanisms are dynamic social practices. Similarly, our observation shows that coordinating mechanisms only emerge over time as a reaction to a specific need that the enactment of the communicative platforms involve (e.g., reaching out to ECU members not

present at the Steering Committee Meetings or to link communicative platforms). Particularly, Jarzabkowski et al. (2012) emphasize the significance of enacting disruption as part of coordinating. Whereas Yanow and Tsoukas (2009) theoretically argue for the importance of surprise for collective reflection in organizing, in our study, we show empirically how the different types of surprises spark the emergence of coordinating mechanisms as a response to enact the disruption.

Boundary conditions, future research and practical implications

This study has several limitations. First, aiming at the big picture of how the different activities of collective reflection emerge and hang together risks losing sight of the more micro dynamics of the different communicative platforms and identified coordinating mechanisms. Second, our case is a specific single case. As with other process studies (Gehman, Treviño & Garud, 2013), we have to answer to what extent might our findings apply to other organizations? Our case is an example of a pluralistic organization (Denis, Langley & Rouleau, 2007). Particularly, the ECU as our unit of analysis may evoke more structured and less improvised responses to surprise, as experimentation is often impossible in life or death decisions. In light of these characteristics, it seems plausible that our findings might hold in other pluralistic organizational contexts (for instance, rather decentralized or loosely coupled systems) and specifically in contexts, in which experimentation as response to surprise is limited. Third, we missed out focusing more closely on the principles and tools of the lean management philosophy as a case for collective reflection (e.g., Huddles or Gemba walks). Furthermore, we are more than aware that we applied Heidegger (1962) not more and not less than as a ‘sensitizing device’ (Langley, 2009; Langley & Tsoukas, 2010).

For researchers, various future avenues for research arise from our study. Concerning the debate of collective reflection we need to know more about how the micro and macro dynamics of collective reflection interact to sustain (see Gorli et al., 2015) collective reflection over time: What other coordinating mechanisms can be observed? How do they increase organizational awareness? Can we empirically illustrate their evolution over time? Can we observe contexts and explain reasons when and how collective reflection does not emerge? Moreover, our Heideggerian lens suggests to focus less on ‘present-at-hand’ settings for collective reflection or explicit breakdowns as sparking reflection, but also on activities of collective reflection and disruptions in ways of being-in-the-world “where what is revealed or made explicit is not an object ‘present-at-hand’ but ways of being-in-the-world itself” (Segal, 2010: 381). This seems particularly challenging as a priori case sampling seems impossible. Regarding the emergence of collective reflection, we may borrow what we already know about the emergence of practices more generally (e.g. Bjørkeng et al., 2009) to foster our understanding of the dynamics of collective reflection in organizing. Another focus may include the tensions and conflicts among the different activities of collective reflection (see Nicolini, 2012). Additionally, our study calls for research that describes the emergence of collective reflection in organizing beyond spontaneous bricolage or improvisation in response to experiencing surprise (Yanow & Tsoukas, 2009).

For people in organizations, our case is an example of how to deliberately design collective reflection in organizations. We give insights in the micro and macro organization of communication as a key management task in pluralistic organizations (Rüegg-Stürm & Grand, 2017). It also suggests to take different types of surprise as a normal condition in contemporary organizing in order to prepare and hence, react accordingly – thus, to consider uncertainty as a resource (Wimmer, 2017). Viewed differently, our case is an example of how to organize interprofessional and interdisciplinary cooperation at an ECU.

Conclusion

Collective reflection has been a long-term issue for scholars and practitioners. Over the years, besides individual reflection, reflection in its social notion became a concern in organizing and our understanding of collective reflection has continually developed. Reviewing the literatures, we found collective reflection conceptualized as a shared, discursive practice that is dynamic and supported by structures in organizing. Yet, existing studies fall short on (in particular empirically) explaining how collective reflection emerges as such a practice over time. To address this need, we applied a Heideggerian-inspired practice perspective aiming to understand the activities and processes involved in the emergence of collective reflection in organizing.

Drawing on our study of a lean implementation in a Swiss regional hospital, we show how collective reflection emerges as a dynamic practice over time: we illustrate the development of various communicative platforms and coordinating mechanisms and explain how these together and over time result in an increase in organizational awareness. This generates two core insights: first, we empirically identified that collective reflection results from coping with different types of surprises (communicative platforms are established or further developed over time as a reaction to surprise). Secondly, we show how coordinating mechanisms allow collective reflection to travel through time and space within organizations. These insights complement and extend existing theory on collective reflection in organizing: it explains the emergence of collective reflection as a practice, it illustrates collective reflection as active communicative structuring and as a knotted net of activities in organizing. We hope that such an understanding of collective reflection offers scholars and practitioners new ways of thinking about joint reflection – in addition to individual, cognitive reflection - in organizations.

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