

**Event chains triggering or hindering the emergence of shared  
leadership in project teams**

## **Abstract**

Project leadership literature has traditionally focused on project manager driven leadership practices. Recently the emphasis has shifted towards understanding project team dynamics and the collective leadership practices that contribute to project success, indicating a transition from leader behaviors to a broader team-centric perspective. Our qualitative research contributes to project leadership literature by exploring the event chains which lead to **emergence of shared leadership (SL)**. Activity theory (AT) was chosen as analytical lens to explore the event chains identified from interview data (n=30). According to AT, contradictions are triggering development or change, not referring to problems or conflicts but rather chains of actions which disturb the prevailing practices enabling the evolvement of new ones. Our study refers to these chains of actions simply events, we found more than 400 examples from the interview data. The events occasionally break down the existing procedures but embed a possibility for cyclic development, such as changes in project team's leadership practices. The aim of our research was to identify what kind of event chains trigger or hinder the emergence of SL. This study is the first qualitative analysis of large data collected in research project during 2022 from 30 interviews among project teams at industry and public sector in Finland to explore the emergence of SL. This paper comprehended teams as an entity. We found multifaceted and overlapping event chains triggering the emergence of SL, namely competences and experience, engagement to shared goals and event

chains featuring the specific characteristics of project work. Multiple project environment and vertical leadership culture was found to hinder the emergence of SL. Our research contributes to research of SL, as the multifaceted event chains create alternative approach for understanding the emergence of SL. Our practical contribution highlights the importance of including team members from diverse backgrounds in sense of experience and competences. We also emphasize the actions for engaging team members in shared project goals to facilitate the emergence of SL.

## 1. Introduction

The discipline of project management has focused on managing projects as technical systems (Imam & Zaheer, 2021). Many project leadership studies have explored the vertical leadership perspective focusing on a project manager's official role as team leader (Muller et al. 2018a; Asree et al. 2019), project leaders' human skills such as emotional intelligence (Zhang et al., 2018), trustworthiness (Castro et al., 2022), and different styles of leadership such as transformative leadership (Ahmad et al., 2022; Asree et al. 2019) and authentic leadership (Nawaz & Tian, 2022). Among complex projects, project management practices require more attention to achieve profitable project outcomes (Kaufmann & Kock, 2022). Even though there is a vast body of research on project leaders' characteristics and leadership styles (Turner & Muller, 2005) the emphasis on project teams' behavior and dynamics have become the key determinants for the success of projects (Dalcher, 2017). Turner argues that leadership and people skills are important competencies for project managers (Turner & Muller, 2005; Turner 2003). Consequently, interest has shifted from project leaders' behaviors into project team dynamics and the role of collective leadership practice in project success (Imam & Zaheer, 2021; Müller et al., 2017).

This research contributes to project leadership literature by exploring the event chains which lead to **emergence of shared leadership (SL)**. Activity theory (AT) was chosen as an analytical lens to explore the event chains (Engeström 1987). According to AT, contradictions are

considered as a source of development or change, not referring to problems or conflicts but rather chains of actions which disturb the prevailing practices or agreements enabling the evolvement of new ones (Engeström 1987; Engeström 2001). We call these chains of actions simply events (in this context event chain does not refer to critical path method). The events occasionally break down the existing procedures but embed a possibility for cyclic development (Engeström 2001), such as changes in leadership practices.

Despite of the interest in the alternatives for vertical leadership practices, the perspective of shared leadership (SL) in project teams, especially research that focuses on the emergence of SL remains scarce (Scott-Young et al., 2019). SL has been identified to emerge in the early phases of the project life cycle (Wu, 2019), having its peak in the middle and declining towards the end of the life cycle (Lorinkova & Bartol, 2021). Prior research has identified characteristics which support the emergence of SL in individuals (Carson et al., 2007; Hoch & Kozlowski, 2014), teams (Carson et al., 2007; Engel Small & Rentsch, 2010) and organisational levels (Yammarino et al., 2012; Ulhøi and Müller, 2014.). Project teams as a working context can be distinguished from other types of teamwork due to the temporally limited life span, highly specialized task distributions, unique project teams, and often project work that is carried out in multi-project environments (Chan et al., 2021). Project managers also lack official managerial status, which may lead to misinterpretations or conflicts in terms of work priorities. Current research lacks the evidence of how SL emerges in teams and

the need for field-specific research on SL has been identified (Sweeney et al., 2019). The aim of our research is to identify what kind of event chains trigger or hinder the emergence of SL during a project life cycle. Our research questions are: *1. What kind of event chains trigger the emergence of shared leadership in project teams?* and *2. What kind of event chains hinder the emergence of shared leadership in project teams?* This study is the first qualitative analysis of data collected in a research project in 2022 from 30 interviews among project teams in industry and public sector in Finland to explore the emergence of SL. This work-in-progress paper considers teams as an entity, and we do not distinguish between the distinct perspectives of project manager or team member. In this study our aim is not to determine value (positive or negative) for SL, hence we acknowledge that emergent SL is highly situational and context-dependent.

## **2. Project team leadership**

The complexity of projects and the constant requirements of changes in the business environment create pressure on organisations to use temporal organizing structures, like projects, to accomplish developmental goals with enhanced agility and flexibility (Darino et al., 2019; Geraldi & Söderlund, 2018; Kaufmann & Kock, 2022). The rapid pace of development has challenged the project work context, in which project teams work with fragmented and complex work tasks and the team members are increasingly involved with many projects leading to multiple project membership (Chan et al., 2021). Simultaneously, the team members work in variable team types including multidisciplinary

(Scott-Young & Samson, 2008) and multicultural teams (Aramo-Immonen et al., 2012; Rees 2003). Traditional leadership theories do not fully capture the unique dynamics present in project work and project leadership, since dynamic and complex project work encompasses constant changes of central team members during project phases. Additionally, specific experts may join as needed to address particular challenges which leads the project teams to undergo frequent changes, limiting their ability to grow and mature as typically understood in conventional leadership models. This situation has consequences for how leadership functions within projects (Müller, et al., 2018b).

Project leadership is prone to a variety of challenges arising from the context of project work: the pre-set duration of the project life span, the relatively high level of uncertainty, and project complexity. The non-routine nature of the work, and the involvement of individuals from a diverse range of backgrounds features in project leadership. Project leadership faces challenges such as developing and maintaining team members' commitment, creating a flexible working environment which enables the team to adapt to the emerging circumstances and simultaneously maintaining supportive team spirit and integrity. (Tyssen et al., 2013, 2014) It's been identified that different leadership styles are appropriate to different types of projects (Müller & Turner, 2007), however there is little evidence that leadership styles impact on project success (Turner & Muller, 2005).

The majority of project leadership research focuses on vertical leadership, in which the project manager with formal authority leads the project (Müller & Turner, 2007; Zhang et al., 2018). Previous research by Müller et. al. (2018a, 2018b) introduced the perspective of balanced leadership, in which they combined vertical and horizontal leadership practices to describe the two distinct leadership processes in projects. In their work, balanced leadership refers to a dynamic and authorized leadership role change between a project manager and a team member (Müller et. al. 2018b) The concept of balanced leadership in project context combines shared and vertical leadership features and focuses on their interaction, which is regulated by the mutual cognitive understanding of team members. This mutual understanding is built from three elements, empowerment, self-management and shared mental models (Müller et al., 2018b).

### **3. Shared leadership**

Shared leadership (SL) refers to a team leadership characteristic, in which leadership is distributed among team members rather than focused on a single designated leader (Avolio et al., 2009; Carson et al., 2007). SL (also called distributive leadership or collective leadership) is central in current working life that increasingly relies on teamwork and projects as a way of working. SL in various teams and workgroups has been in the interest of active research for a couple of decades (D’Innocenzo et al., 2016) and it has been studied in the fields of management and organisational behavior (Singh et al., 2022; Umans et



al., 2020) psychology (Hoch & Kozlowski, 2014; Lorinkova & Bartol, 2021), healthcare (Janssens et al., 2021; Salas-Vallina et al., 2020), education (Vogel, 2022), and sports (Kang & Svensson, 2019). SL has been studied in project teams in the contexts of entrepreneurial teams (Zhou, 2016) decision-making teams (Bergman et al., 2012) and in student samples (Aube et al. 2018; Lorinkova & Bartol, 2021; Mathieu et al., 2015).

However, the concept of SL is not mutually agreed upon, and there are diverse definitions of SL due to a variety of theoretical approaches (Scott-Young et al., 2019). Even though the definite conceptual agreement is pending, rather frequently used is Pearce and Conger's (2003,1) definition "*dynamic, interactive influence process among individuals in groups for which the objective is to lead one another to the achievement of group or organisational goals or both. This influence process often involves peer, or lateral, influence and at other times involves upward or downward hierarchical influence*" (Kozlowski et al., 2016). Acknowledging there are field-specific definitions, Scott-Young et al. (2019) formed a concept specific to project teams, in which SL entails the horizontal distribution of influence and responsibility among various team members, with encouragement and support provided by the vertical project manager's actions. Therefore, the adoption of SL expands the possibilities for managing project teams, particularly in complex, innovative, or knowledge-intensive projects, diverging from the conventional project

management practices in which a nominated project manager has formal vertical power over team members (Scott-Young et al., 2019).

SL is conceptualized as a dynamic and emergent process which changes over time (Kozlowski et al., 2016). Project teams can be identified as potential contexts for exploring the emergence of SL, since variations in project type, size, scope, and context require different styles of leadership to cope with the multiple complex and stressful situations and decision-making scenarios that arise during a project life span (Imam & Zaheer, 2021). Since SL is more likely to occur where there is task interdependence (Fausing et al., 2015), and in projects, the roles and relationships between team members will emerge, co-evolve and change (D'Innocenzo et al., 2016), project teams are a potential context to explore the emergence of SL. Additionally, a recent review of SL in project teams managed to include only five screened publications of SL in project teams (Scott-Young et al., 2019), which indicates SL has not been sufficiently studied in project teams, even though SL is a valuable approach to managing complex environments (Sweeney et al., 2019).

The previous research indicates several positive consequences of SL. It is often connected to the team performance (Carson et al., 2007; Wang et al., 2014). In work contexts in which the team members are encouraged to increase knowledge exchange and to take the lead on specific tasks and actions, SL contributes to team cohesion, team consensus, and satisfaction (Bergman et al., 2012). In the review conducted by Nicolaides et. al. (2014) it was discovered that SL contributes to team performance through the evolvement of team

confidence, which supports the findings of previous review by Wang et. al. (2014). Nicolaides et. al. (2014) found out that SL is particularly effective when team member interdependence is high, which requires team members to work closely with one another, coordinate, and integrate actions. The body of evidence on the effect of team maturity on SL is controversial; Wang et. al (2014) found out that team performance improved along with SL as the team matures, but Nicolaides (2014) found the opposite. The negative consequences of SL on team performance are low decision-making efficiency, declined creativity and responsibility dispersion (Chen & Zhang 2023).

Hoch and Dulebohn (2013) have identified a framework for factors facilitating SL development in teams. The first factor that impact on the development of SL is structural support, which includes the perceived team support, rewards, and information. The support can be perceived in organisational, team and individual levels. The second factor is vertical leadership, which demonstrates transformational leadership characteristics, empowerment and leader-member exchange (LMX) behavior from the leader. At the individual level, the team member characteristics such as internal locus of control orientation, self-leadership and proactive personality and team composition are identified as antecedents of SL in teams. (Hoch & Dulebohn 2013) Individual traits such as willingness to take leadership (Carson et al., 2007) expertise, competences and personality are features which affect on the collaboration and outcomes in teams, (Mathieu et al., 2008;

Müller et al., 2018b), however, these findings are generally for teamwork, not specifically for project teams.

Additionally, trust and collectivism in teams has been identified as critical antecedents of SL (Engel Small & Rentsch, 2010). Internal team environment has been identified as a facilitating factor for the emergence of SL in many previous studies (Carson et al., 2007; Engel Small & Rentsch 2010; Wu et al. 2020). The shared purpose of work, social support and voice have been identified as antecedent of SL in teams (Carson et al., 2007), as well as the heterogeneous team composition and task interdependence (Fausing et al., 2015). At the organisation level, the organisation characteristics such as design, structure, culture, values, and norms which encourage both project manager and team members to engage in SL practices are important facilitators of SL (Ulhøi & Müller, 2014; Yammarino et al., 2012).

#### **4. Events in projects**

Müller et al. (2018a) have identified in their work of balanced leadership five separate events in projects, or rather a series of actions by project leaders, in which the leadership roles between the appointed project manager and team members can be changed. They identified that in the early phases of the project, in which the team is nominated, the project manager influences the project team composition to ensure potential team members who are willing to take the lead. In the identification phase the project manager evaluates the team members, and team members identify their own roles and responsibilities. Next,

the selection phase empowers the potential horizontal leaders, followed by the governance phase of horizontal leadership, and shift back to vertical leadership practices in transition phase. (Müller et al., 2018a) Contrary to previous research, our research sheds light on the project life cycle events on exploring the emergence of shared leadership. Müller's (2018a) phase identification explores the leadership changes from project manager's perspective. Our perspective is on emergent SL, not on project manager-led leadership distribution.

## **5. Research methodology**

This qualitative research approaches the emergence of SL from a phenomenological perspective, in which we were interested in the reflections of the team members on the project teams' leadership practices. In our empirical research, the focus is on the project team members' experiences and their interpretations of the changes in leadership roles and responsibilities. Whilst research on project teams SL relies mainly on quantitative approaches (Scott-Young et al., 2019), our qualitative research sheds light on the interpretations the project team members have on the phenomenon and to unravel the complexity of project teams' leadership functions. The qualitative approach enables the understanding of the underlying contextual meanings and how the team collaborates and manages complex organisational arrangements (Cicmil, 2006). Our empirical material consists of 30 individual semi-structured interviews, which included question themes of project teams'

shared goals, leadership and responsibilities, project events and team performance.

### ***5.1. Data collection***

This research was conducted in six large organisations. All organisations executed project-based work in Finland. Some of these companies had ownership abroad, which may affect the organisational culture and project management practices. The organisations operated in the fields of Medical Industry, Financing Services, or in Public Services. All the participating organisations operated in international collaborations, either in the global business, or in international development projects. The majority of the participating team members were working in multi-project environments. Four of the organisations operated in business, and two in the public sector.

A total of 30 project team members or project managers from 18 different project teams participated in the interviews, 24 from the Medical Industry, two from Finance and four from Public Services. The interviewees worked in research, development, investment, and acquisition projects. Projects budgets varied from tens of thousands to millions of euros. The project contents were heterogeneous, and goals varied from development of online services, promotion of sustainable development, and extensive procurement projects for production lines, to development of diagnostic equipment. Interviewees worked as project managers or as content experts in team member positions.

The interviewees were recruited on a voluntary basis from projects, which were selected to participate by their Project Management Office. The recruited interviewees received detailed research information and privacy statements, and their voluntary consent for participation was inquired prior to the interview. The interviews were conducted via Teams or in face-to-face meetings, recordings transcribed by a research team member, and organised with Atlas.ti program.

### ***5.2. Data analysis***

The analytical focus was on events during the project life cycle. These events offered a valuable retrospective view for exploring the everyday work of project teams. Initially, the focus was on disruptive events (Morgeson, 2005), which in previous studies have been identified to function as triggering the change in leadership practices within teams (Engeström, 2000; Vartiainen et. al., 2010). The disruptive events affect on the team's daily routines result in teams being forced to adapt their activities to overcome challenges (Morgeson, 2005). According to literature (Engeström 2000; Morgeson 2005) disruptive events may trigger leadership change. During our initial analysis of the disruptive events, it was discovered that not only disruptive events, but also other events (see Table 1.) were significant in light of shared leadership emergence.

As the analysis widened to concern all meaningful events, there was a need for a more detailed analytical tool to identify the elements involved and Activity Theory (AT) (Engeström, 1987) was chosen for a theoretical lens. The AT lens as a methodological tool enables

systematic exploration of the informants' interpretations of the events during a project life span in a theoretically constructed way, and to identify possible disturbances or contradictions within each event. Systematic analysis of the events considers multiple actors' perspectives, which is crucial in attempting to make sense of the complexity of project leadership and underlying reasons for team leadership changes. Activity Theory, also referred to as cultural-historical AT (Cong-Lem, 2022; Engeström, 1999; Engeström, 1987) sees activity as a collective system which comprises of six elements; object of work, subject, tools, division of labor, community, and rules (Engeström, 1987). We related these elements to project team collaboration as follows: 'object of work' is the project goals, and smaller objectives and tasks which are likely to achieve the end products of the project concerned. 'Subject' is the team member but can also refer to the whole team in cases where the interviewee talked about the teams' relationship with the whole organisation or stakeholders. 'Tools' are the intangible resources utilized for project work, such as skills and competences, organisational guidelines or frameworks steering the work, and tangible resources such as communication and collaboration tools which enable project work. 'Division of labor' is the way the project tasks are distributed within the team and organisation. 'Community' refers either to the project team or whole organisation, depending on the interviewees' perceptions. 'Rules' refers to decisions or guidelines agreed upon in the organisation.



AT is grounded in the principles of work as an activity system, in which the elements of action are interrelated in multiple levels and the activity systems are always multi-voiced with actors from different points of views and history (Engeström, 2001). Project work is characterised as a complex system of teamwork, involving a large number of stakeholders within and outside the main organisation (Maylor et al., 2013), hence embedding multiple activity systems and is affected by many actors. According to AT, contradictions are considered as a source of development or change, not referring to problems or conflicts but rather chains of actions which disturb the prevailing practices or agreements enabling the emergence of new ones (Engeström, 2001). We call these chains of actions simply events, whilst analysing the empirical data. The events occasionally break down the existing procedures but embed a possibility for cyclic development (Engeström, 2001), such as changes in leadership practices.

The analysis was executed by three researchers following investigator triangulation principles (Denzin & Lincoln 1994). The extracts were marked from transcripts in which the interviewees talked about events that had an effect on project progress or events that had changed the task distribution or had an impact on project outcomes. Interviewees were asked to *“memorize an event, which has influenced the collaboration of the team or has had some impacts on goal achievement”*. All events found (n=415) in the data were analysed according to elements of AT. Next, the analysis continued with an exploration of the event from a SL perspective, whether the conflict in

the event had changed the leadership roles and responsibilities in the project, and if the conflict evolved SL in the project team. The informants described multiple different events leading to changes in project team leadership (see Table 1.) and explained how the event had facilitated them e.g. *"to take responsibility"*, how the event initiated actions exceeding their own roles *"asked myself what I need to do"* and how the leadership responsibilities were given to team members *"the leadership responsibilities were shared.. could say that he led the project more than me"*. The analysis was triangulated (Denzin & Lincoln 1994) between three researchers over several iterations. During the analysis, the researchers discussed the interpretations, uncertainties and possible conflicts faced. Triangulation discussions concerned specifications of the events, which AT elements were involved, and from which element the event chain initiates. As the events were analysed by AT in light of triggering or hindering the emergence of SL, the first author took a more responsible role in forming the event chains, followed by regular investigator triangulation discussions. The uncertainties were elaborated on together with reflection on the research goals, and possible contradictions between individual researcher's interpretations were discussed to achieve mutual understanding and coherent analysis.

Table 1. Example of events leading to the emergence of shared leadership

Event leading to the emergence of shared leadership	AT elements involved
<i>Our project manager was for half a year on maternity leave or whatever it was, there was no project manager [division of labor]. One of team members[subject] then managed those things as well. At that point it was more independent, we had to take responsibility. [39]</i>	Event involving division of labor and subject
<i>When the project manager has been on holiday and the quality manager has started to get nervous, that we need to get this and that to be done [object of work], there are only a few people present [division of labor], and then we just need to use the resources, [tools] to understand what is critical.... then I have asked myself what I need to do [subject] and what you want from me. [3]</i>	Event involving object of work, division of labor, tool, and subject
<i>Working with more experienced equipment lead [division of labor]... almost could say that he led the project more than me [subject] ... but he has experience [tools] and has seen previous similar projects in different tasks and roles, so he had a good vision of what to take into account and got the team well involved ... [21]</i>	Event involving division of labor, subject, and tools
<i>N offered me this project and asked me to support [division of labor] the good spirit, because of challenges to get people involved and there are indeed new people [community].... sometimes I might think that, well, what's the point in all this, should I really stay [subject] only on my own expertise [85]</i>	Event involving division of labor, community, and subject

## 6. Findings

This research discovered event chains which trigger or hinder emergence SL in project teams. The triggering and hindering event chains are derived from the elements in AT, in which the contradiction between the elements trigger or hinder the change, and in this study, the emergence of SL. The event chains are categorized according to the element, the object of and goals of work, subject, tools, division of labor and collaboration, community, and rules, which was interpreted to initiate the chain of actions leading to changes in the team's leadership

responsibilities. Event chains were analysed also according to individual, team and organisational levels.

### **6.1. Event chains triggering the emergence of shared leadership**

Table 2. Event chains triggering the emergence of shared leadership

<b>AT elements</b>	<b>Level of analysis</b>	<b>Event chains triggering the emergence of shared leadership</b>
Object and goals of work	Individual	Challenging object of work Leading complex projects
	Team	Life span phase Team spirit building Challenging events in project life span
	Organisation	Meaningful project output
Subject	Individual	Individual traits Competence and experience Team support Unexpected event
	Team	Team competences and engagement
	Organisation	-
Tools	Individual	Competence and expertise
	Team	Practical project tools
	Organisation	Model of project management Renewal of project organizing
Division of work and collaboration	Individual	Engagement to the shared goals of the project Role clarity
	Team	Team member changes Responsible role Perception of team member's competences Role conflicts Role clarity
	Organisation	Organisational changes Lack of organisational support
Community	Individual	Trust
	Team	Trust Maturity of team Supportive and responsible team climate
	Organisation	-
Rules	Individual	Project deadlines
	Team	Project deadlines
	Organisation	Changes in specification

*Object and goals of work*

Event chains triggering SL derive from the object and goals of work (Table 2.). On an individual level, if the **object of the work is highly challenging**, and the project manager does not have enough knowledge on the substance, the project manager shares the leadership responsibilities within the team. Also, when **leading complex projects**, the leadership practices need to be flexible. Project managers understanding of the requirements of distributed leadership characteristics and distinction of the difference between “simple” project management practices function as an event chain evolving SL.

On a team level, different phases in **project lifespan** embedded event chains which evolved SL. The specific objects of work changed according to different project phases and rendered renewal of roles, also leadership roles, in project teams. Also **challenging events** in project lifespan triggered the emergence of SL as the team first struggled and then overcame the obstacles by clarifying and understanding the relationship between “my work” and “our work”. SL evolved also when team faced indirect project objectives such as tasks related to **team spirit building**, and the specific team members took the lead on the team spirit building activities. On an organisational level, **meaningful project outputs** were a driving force for SL, in situations of high levels of collaboration beyond official project roles that were needed to complete the project tasks at hand.

### *Subject*

Taking a leadership role required **individual traits** such as courage, self-initiation, emotional intelligence, and proactive behavior, which were event chains related to the subject on an individual level. (Table 2.) Simultaneously, **competence and experience** played an important role in forming the basis for SL emergence, however, this required a triggering event in the project such as the hindrances in progress due to lack of decision making. E.g. *"team member gets frustrated as nothing happens and the decisions are not made... someone needs to take the responsibility... older, more experienced ones take lead" [62]*. In these situations, an experienced team member took over the lead to overcome the hindrances. On a team level, **team-level support** for the shared leadership practices encouraged the project manager to continue the distributed leadership practices. **Unexpected events** emerge SL as the project manager is forced to change the leadership practices to overcome the new situation. **Team competences and engagement** emerge SL, as team members may take leadership roles in situations in which their competences are most needed and their competence exceeds the competence of the formal manager.

### *Tools*

The event chain triggering SL emergence derived from tools on an individual level was **competence and expertise**, as they gave justification to take the lead in diverse project life cycle situations in which the team member's expertise was required. E.g. *"as I've gained experience I understand the connections within project tasks and events*

*better...and I can take over the new situations or changes with appropriate seriousness and act accordingly" [37].* In these cases, if competence and expertise were combined with individual traits of courage, the shared leadership was pushing the decision making to even go beyond official rules. On a team level, **practical project tools** such as efficient communication practices, precise work and task divisions and clear goal-setting events create practices which function as a venue for sharing and re-shaping responsibilities. On an organisational level, organisation specific **project management model** and its standardized phases function as a tool to provide points for reviewing and redefining leadership practices.

#### *Division of labor and collaboration*

On an individual level the **engagement in project goals** and taking responsibility for one's own workload, but also engaging in the **shared goals** functioned as a triggering event chain leading to shared leadership. Engagement leads to working towards the shared goals, even if one team member was absent, team members took over the lead without formally being asked. Work **role clarity** was identified as a trigger for SL, since clear professional roles facilitated self-management and fostered one's own role in taking leadership.

On a team level, **team member changes** forced the reshape of team member responsibilities, and triggered SL to emerge. **Perception of team member's competences** triggers the emergence of SL, as on occasions when the team knows the skills and competences of the team members, the responsibilities and leadership roles can be shared. **Role**

**conflicts** trigger the emergence of SL in situations where team members' leadership responsibilities and roles are unclear, and one team member takes the lead despite no formal authority. Uncertainties in leadership roles and responsibilities within the team trigger an individual team member taking the lead once they get frustrated in unclear situations, or the leadership role is shared with one of the team members without formal authority. Contrary to role conflicts, **role clarity** in teams leads to the emergence of SL because understanding one's own role and responsibilities and those of others forms a concise perception of the shared goals and the overall purpose of the project. The clear roles and responsibilities function as a springboard from which leadership is shared.

On an organisational level, the changes in **organisation's management** create transition points for project leadership in teams. In addition, the **lack of organisational support** triggers the emergence of SL as the **organisation's management** does not give support or guidance to local projects which leads to collective decision-making in project teams.

### *Community*

Event chains triggering the emergence of SL in the community, both at individual and team levels derive from **trust**. Additionally, a **supportive, and responsible team climate** triggers the emergence of SL. The **maturity of team** triggers the emergence of SL in later phases of the project lifespan as the unstructured team collaboration featuring the early phases is over and the team collaboration matures.



## Rules

On individual and team levels, **project deadlines**, trigger the emergence of SL as the leadership roles are forced to be re-shaped to achieve needed project goals in specific time frames. On an organisational level, the **changes in outcome specifications** create a venue for re-organising the leadership roles.

### 6.2. Event chains hindering the emergence of shared leadership

Table 3. Event chains hindering the emergence of shared leadership

AT elements	Level of analysis	Event chains hindering shared leadership emergence
Object and goals of work	Individual	-
	Team	Unclear tasks Tasks specific for PM
	Organisation	-
Subject	Individual	Vertical leadership style Reluctance for taking leadership
	Team	Multi project involvement
	Organisation	-
Tools	Individual	Lack of competence and experience
	Team	Digital communication tools
	Organisation	Insufficient time allocation
Division of labor and collaboration	Individual	Strictly specified roles Multiple project involvement
	Team	Lack of trust
	Organisation	Unclear distribution of tasks communication, and responsibilities Outsourced leadership roles Insufficient resourcing Vertical leadership model
Community	Individual	Vertical leadership practises
	Team	Multiproject involvement Early project phase Lack of trust
	Organisation	Vertical leadership culture Unclear responsibilities
Rules	Individual	Reluctance for change
	Team	-
	Organisation	Vertical leadership model

*Object and goals of work*

Team level event chains hindering SL emergence derive from **unclear tasks**. Also, the **specific tasks** allocated for the project manager, such as budget, role and task divisions cannot be shared.

*Subject*

Event chains that hindered SL emergence in an individual level were **project manager's vertical leadership style**, and one's **reluctance for taking leadership**. The reluctance for change derived from situations where there was a lack of competences for taking over the lead, or experience of having enough demands in current tasks. At a team level, **multiple project involvement** hindered SL emergence, due to excessive workload.

*Tools*

An individual level event chain related to tools that hindered the emergence of SL was the **lack of competence and experience**. At the team level this was **digital communication tools** which did not support sharing and collaboration. On an organisational level, **insufficient time allocation** for project work hindered SL emergence.

*Division of labor and collaboration*

On an individual level **strictly specified roles** hindered the emergence of SL as team members undertook only their specific project roles and were not willing or expected to exceed that. This relates to involvement in **multiple projects** and other duties in production that undermined the

opportunities to take collective responsibilities or shared leadership roles. Clearly specified expert roles combined and multi-project involvement limited one's work in, that there is no space for SL. On a team level, **lack of trust** hindered the emergence of SL, and on an organisational level **unclear communication and distribution of responsibilities, outsourced leadership roles, insufficient resourcing for project work** and a **vertical leadership model** hindered the emergence of SL.

### *Community*

Community related event chains that hindered SL emergence on an individual level were the project manager's **vertical leadership style**. On a team level **multiple project involvement** led to fragmented work, possible role uncertainties, insufficient time resources, and difficulties to engage and to prioritize specific projects. The belonging and engagement to the team were interrupted both from the team member and team's perspectives, for example, as one community member had quick interventions to the project. Findings from interviews revealed, that in the **early project phase** in which the team collaboration was currently developing also hindered the emergence of SL. On an organisational level **vertical leadership culture** and **unclear responsibilities** hindered the emergence of SL. E.g. project owner and project manager had unclear responsibilities in the organisation.

### *Rules*

Event chains deriving from rules which hindered the emergence of SL on an organisational level were leadership cultures that relied on **vertical leadership** and project manager-led practices. E.g. Mechanistic organisational approaches, formal work environment and strong project management practices hindered the emergence of SL.

## **7. Discussion**

In this study, we explored the emergence of SL in project teams, in order to find factors triggering and hindering the emergence of SL. We responded to a recent call for studying SL in project teams using qualitative approaches (Scott-Young et al. 2019), to shed light on the emergence of SL. We analysed interview data according to the AT elements of an activity system. We found the event chains triggering the emergence of SL may be fast or slow in nature. Fast ones such as project managers turnover or other unexpected events change the leadership practices within the project team in a shorter timeframe. Slow ones trigger SL emergence slowly over time, such as team member's unclear roles or the project team's engagement in project goals.

Firstly, individual traits such as courage, self-initiative, emotional intelligence, and proactive behavior triggered the emergence of SL. For example, in situations in which team members got frustrated about unclear project progress or unclear leadership roles and took the lead to

facilitate the project progress. Also, the project manager's willingness to hand over the leadership responsibilities on the substance-related issues are traits which gave space for team members to take over leadership responsibilities. These individual traits also require one's **competence and experience** in projects in the specific field. According to our findings, perception of team members competence and experience are essential factors triggering SL emergence. This is also evident when the project manager has less experience and shares leadership responsibilities to competent and experienced team members. Team member's competence and experience are previously found as antecedents of SL (Mathieu et al., 2008; Müller et al., 2018). Having a team composition of different experiences gives space not only for sharing leadership but also creates space for learning. Understanding of team's competences and experiences is important in challenging and complex projects, in which the leadership responsibilities need to be shared. These findings are in line with Müllers (2018b) work about balanced leadership, in which the project manager needs to understand the particular skills and availabilities of team members in order to share leadership roles during a project lifespan.

Project work has been described as complex, engaging multiple actors from different disciplines, and team members are usually involved in multiple projects (Maylor et al. 2013). We found that **engagement in shared goals of the project** triggers the emergence of SL; as a team member is engaged in the project's shared goals, having taken

“ownership” it facilitates them to take more responsibilities exceeding their official roles. This requires the team member to expand their perception of their work from my work to our work, which is fundamentally important not only in successful teamwork (Mathieu et al., 2008), but also as found in our study, in triggering the emergence of SL. Establishing and engaging the team in shared goals is important in teams to achieve performance expectations, and depending on the organisation, team members may have an influence on the goal-setting processes (Morgeson 2005). In many project organisations the project team gets pre-set goals to work for, therefore the engagement may require more effort and facilitation. Having clear work goals leads to effective team outcomes, which has been found in several previous studies (Carson et al., 2007; D’Innocenzo et al., 2016; Mathieu et al., 2008). According to our study, clear goals also trigger the emergence of SL.

Organisational support has been identified as an antecedent of SL (Hoch & Dulebohn, 2013; Ulhøi and Müller, 2014; Yammarino et al., 2012). Thus, also uncertainty as a result of contradictions in activities (Engeström 1987) may trigger SL. The **specific features of project work** such as project life cycle phases, deadlines and challenging events trigger the emergence of SL, offering natural transition points for changes in leadership responsibilities. Unexpected and challenging events happen along a project life cycle. These events may function as a transition point in which the project work is redesigned, and roles can be re-considered, hence creating points for the emergence of SL.

Similar transition points are project deadlines, both short and long term. The structured project management model with milestones was triggering the emergence of SL. This study indicated that also a lack of organisational support for local site projects triggered the project members to share leadership practices and make their own decisions.

Secondly, we found event chains hindering the emergence of SL. Some hindering event chains were opposite to the triggering chains described above; unclear task distribution and roles, unwillingness to take leadership responsibilities, lack of competence and experience and poor communication. Interestingly, one hindering event chain derives from digital communication tools, even though they function in many organisations as basic tools for project work. The digital tools used for team communication were considered to prevent the necessary information flow and not supporting the team collaboration. In addition, building trust was considered difficult in virtual working spaces. The communication difficulties via virtual channels are not a challenge only for project teams, but a wider question of new ways of working (Eurofound, 2023; Järvenpää & Leidner, 1999). Despite of the huge digital step taken during the pandemic, the sense of belonging and sense of being heard in virtual working spaces is not yet a self-evident fact (Griep et al. 2021).

A vertical leadership style, in which the responsibilities were not shared by a project manager was found to hinder the emergence of SL, which is consistent with previous studies (Scott-Yong et al. 2019). In cases where the organisation culture relies on vertical leadership, the project

teams may have difficulties to function controversially. The team members had reluctance to take leadership roles in cases of project teams' official leadership roles being outsourced. In these cases, team members experienced leadership that had been outlined completely from team members responsibilities, and they had no motivation to take on additional responsibilities.

Multi-project environments may hinder the emergence of SL due to strictly specified roles and insufficient resourcing. Once one has strictly specified roles in multiple projects, the time allocated for each project is minimal which does not give space for additional responsibilities (e.g. leadership roles). This derives from two distinct reasons. First, in multi-project environments one has smaller numbers of expert roles in the specific project, and the engagement for the shared goals of the project may be weak. Secondly, the time allocated for each project is counted precisely to cover the time spent on the specific task, nothing else. This interferes with team collaboration from individual workers and other team members' perspectives, leaving the team member in outer circle, as Borg & Söderlund (2014) found earlier. The individual worker may lack a sense of belonging and the team collaboration is disturbed because of these minor interventions.

### ***7.1. Conclusions and limitations***

The findings from our research contribute to project leadership research by exploring the event chains evolving and hindering the emergence of SL. The event chains that trigger the emergence of SL overlap. Event chains of competences and experience, engagement to shared goals and



the specific features of project work are multifaceted event chains in the context of project teams. Multiple project environment and vertical leadership culture were found to hinder the emergence of SL. Our research contributes also to the research of SL, as the overlapping and multifaceted event chains create an alternative approach for understanding the emergence of SL. Our practical contribution highlights the importance of team members' diverse backgrounds in regard of experience and competences and the actions for engaging team members in shared project goals, despite diversity as such may increase coordination and communication challenges (Tyssen et al., 2013). The different phases in the project lifespan offer practical transition points for leadership responsibilities, along with projects substance-related re-arrangements.

We have identified some limitations of this empirical research. Even though the diversity of project contexts allowed us to explore the emergence of SL from multiple perspectives, we may have lost some contextual features in the specific organisations. Also, the collaboration of three researchers analyzing the data brought richness and multiple perspectives and despite of careful triangulation during analysis process, misinterpretations are possible.

Despite of these limitations, our research remains valuable for exploring the complex phenomena of SL emergence in project teams. This research project holds rich empirical data, to be explored from SL project life span perspective, for example. Future research could explore the overlapping event chains in more details, to consider the

size and characteristics of the project teams and to use multiple cases to reveal the contextual characteristics in more details. Also, the consequences of SL to team members well-being at work, such as job engagement, would be important to study.

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