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Transitions in Balanced Leadership in Projects: The

case of horizontal leaders

by

Raimonda Alonderienė, ISM University of Management and Economics, Vilnius, Lithuania Ralf Müller, BI Norwegian Business School, Oslo, Norway Margarita Pilkienė, ISM University of Management and Economics, Vilnius, Lithuania Saulius Šimkonis, ISM University of Management and Economics, Vilnius, Lithuania Alfredas Chmieliauskas, ISM University of Management and Economics, Vilnius, Lithuania

Abstract—Balanced leadership theory conceptualizes that in projects leadership authority bounces back and forth between different roles in situational contingency, and controlled by the project manager. One of these roles is the horizontal leader - a team member appointed by the project manager to lead the project through a particular issue or crisis. This study investigates the transition at the end of a horizontal leader's assignment and the morphostatic or morphogenetic consequences for future assignments, stemming from the 'fit' between the horizontal leader's work with the expectations that led to his/her appointment. A Realist Social Theory and Transition Theory perspective is taken with 30 interviews in eight case companies. A model for transition in balanced leadership is abductively developed. Variables identified are context, conditions, actors, mechanism, criteria, and outcomes. Results explain the nature and change of assignment conditions, as well as the (dis)continuation decisions on horizontal leader roles at the end of their assignment. A theory is developed that describes the transfer event, with its variables and their interaction. This provides for an extension of the theory of balanced leadership. Practitioners can apply the study's insights to steer the process of horizontal leader appointment and its (dis-)continuation to desired outcomes.

Index Terms— Balanced leadership, Horizontal leadership, Transition, Transition management,
Realist Social Theory

A. INTRODUCTION

The concept of balanced leadership has emerged as a complement to the traditional understanding of leadership in projects as being either person-based or team-based [1]. In this newly identified type of leadership, project managers, as so called vertical leaders (VL), monitor the project team members from their assignment to the project onwards to identify their particular strengths and their willingness to lead the project temporarily when the need arises. Based on this evaluation of team members, balanced leadership conceptualizes how VLs decide for and assign the most suitable leader for the project in situational contingency. For that, balanced leadership theory describes five events: (1) nomination of team members to the project, (2) identification of possible leaders from the team, (3) selection and empowerment of leaders, (4) leadership by the empowered leader and its governance by the VL, and (5) transition of the empowered leader into either a new role, the prior role, or continuation of the existing role [2]. For event 3 and 4, the literature describes three possible scenarios: a) the empowerment of a whole team or sub-team, to develop creative or innovative solutions for a given problem, typically using shared or distributed leadership [3], or b) the VL retaining leadership authority as he or she is deemed to be the most suitable leader at the moment, typically exercising vertical leadership [4], or c) the assignment of a horizontal leader (HL) - a team member chosen by the VL to temporarily lead the project through a particular state, issue, or crisis [5]. During the time of this HL assignment, the VL follows the HL, but retains accountability for closing or terminating the assignment of the HL when needed. At the end of the HL assignment, VL and HL enter into an evaluation of the assignment to decide on a) shifting leadership authority to another person, the VL, or to stay with the current HL, and b) changing or retaining the selection criteria that were used for the current HL's assignment [2]. The nomination event is investigated in [6], the identification event in [7], empowerment in [8] and horizontal leadership and its governance in [5]. However, the last event - transitioning of horizontal leaders – has not been empirically investigated and little is known about the transitioning of horizontal leaders at the end of their assignment. The present paper addresses this knowledge gap. This is important, as it allows for insights into the variables, mechanisms and processes that make up the event, which allows practitioners to move from intuitive to deliberate and better informed decision making for leader assignments that are beneficial for project outcomes. Academics gain through a further development of the theory framework for horizontal leadership, which gains rapid popularity in a wide number of different industries and settings, such as professional football [9], social media [10], and construction [11]. Moreover, the engineering field is rarely covered in the area of horizontal leadership. For that, the study explores the key variables of the event and the sequence of their interaction in order to develop a theory of transition in horizontal leadership. To that end, we ask the following research questions:

RQ1: What are the particularities of the transition event after a horizontal leader assignment?

RQ2: What is the nature of this transition in terms of variables and their impact on transition outcomes?

The unit of analysis is the event of horizontal leadership transition as it unfolds at the end of a HL assignment. We take a Realist Social Theory perspective in the sense of Archer [12], which explains the sociological mechanisms of the event from a critical realism standpoint. Within this perspective, we apply transition management theory, as developed by Loorbach as the model for transitions at the operational level [13]. A multiple-case study setting is used for interviews and abductive analyses of the data to derive at a model comprising context, mechanisms, actors, criteria, and outcomes of the transition event.

The next section briefly reviews the most relevant literature to derive at the knowledge gap. The subsequent sections describe the methodology, data analysis, and discuss model and theory development respectively. The paper finishes with the conclusions, including the answers to the research questions.

B. LITERATURE REVIEW

This section starts with balanced leadership as the context for horizontal leadership to emerge. Then addresses the theoretical lenses of Realist Social theory and transition theory as they relate to the phenomenon under study.

A. Balanced leadership

Leadership has been explored in engineering studies and beyond. Studies in engineering include those that investigated the relationship between project characteristics and project performance in the context of different levels of top management involvement, indicating that top management leadership increases with the contribution of a projects to the business goals [14], other studies identified the relationship between team performance and its impact through empowerment in the context of high task uncertainty and team expertise [15]. Yet others looked at the impact of leadership competences of project managers on project success [16]. Parts of the papers identify the distinctiveness of leadership in engineering and technology: Karahanna and Watson [17] and Faraj and Sambamurthy [15] analyzed information systems leadership. Related to that, Drouin et al. [18] explain how balanced leadership differs in waterfall and Agile/Scrum project settings, using cases from construction and IT. They found that balanced leadership is more often used in waterfall driven, especially R&D, projects. Here the question of transition of individuals with temporarily assigned leadership authority appears more often than in agile settings, where the nature of workflows, hierarchies and a general (sub)teams rather than individuals orientation prevails. The present paper continues these studies by exploring the transition event in balanced leadership in engineering types of projects.

Recent studies identified balanced leadership (and its component horizontal leadership) as complement and integrative concept for the traditionally narrow views of vertical and team-based leadership. Vertical leadership is exercised by an appointed formal leader of a team, such as a project manager. Team-based

leadership is described as "a group process in which leadership is distributed among, and stems from, team members" [19, p. 172], which then further divides into shared leadership, where team members engage in peer level leadership when collaborating [20], and distributed leadership, where leadership emerges out of the social interaction of team members [21]. In-between vertical and shared leadership lies horizontal leadership, which is leadership executed by a team member upon nomination by the project manager (VL), and governed by the VL for the time of the nomination [22]. Balanced leadership theory integrates these different leadership approaches through a theory framework that allows selecting the most appropriate leadership approach in situational contingency in projects. Project specifics determine the leadership type [18]. In [18] construction projects demonstrate high vertical leadership while IT projects show more evidence of balanced leadership.

Balanced leadership consists of five events:

- *Nomination* of members to the project team. This is a key event for the VL to influence the selection of team members. Empirical studies show that VLs use a number of different means to get their preferred team members nominated, but often struggle with being heard by those in power of nominating [6].
- *Identification* of possible leaders within the team. Here VLs evaluate the professionality, personality and attitude of team members in respect of their capabilities and willingness to take on temporary leadership roles [7].
- Selection or empowerment of one or several team members as leader(s). As described above, depending on the idiosyncrasy of the situation either a more team-based (e.g. for creativity or innovation) or horizontal leadership (e.g. for highly specialized tasks) approach will be chosen. This characterizes the VL's transfer of leadership authority to the selected leader [8].
- Leadership by the selected leader(s) and governance by the VL. This event describes the leadership by the chosen leader for the time of the appointment and the dual role of the VL in following this appointed leader as a participant in the project, but also governing this leader to ensure a satisfactory

result of the appointment [5], [25].

• *Transition* marks the end of the temporary leadership appointment, the evaluation of the process and results of the appointment and the elaboration of possible changes to the conditions for future appointments of temporary leaders in the project [2].

Research on the exploration of the fifth event – transition - is scarce. Some work has been published on the evaluation of effectiveness of shared leadership [26] and performance of distributed leadership in teams [21]. However, little is published on the details of a transition event in horizontal leadership. This setting is significantly different from a team being at the end of its leadership assignment, as the HL's power base is neither in the formality of the position (as in vertical leadership) nor in the voluntary acceptance of leadership by the team members (as in shared and distributed leadership). Hence, it is not clear what the nature of the interactions at the horizontal leadership transition events are, in what patterns they manifest themselves, and what processes lead to their outcomes, i.e. change or stability. This is addressed in the present paper.

B. Realist Social Theory

To understand the transition event, we go back to its origin, which is Realist Social Theory [12], and its inherent morphogenetic cycle.

Realist Social Theory perceives societies as open-systems, constantly shaped and re-shaped through their members' innovativeness. At the heart of this social structuring lies Morphogenetics, consisting of the two complementarities morphogenesis (processes for changing, for example, a system's form, state or structure), and morphostasis (processes to preserve or maintain them) [12]. Both are results of the morphogenetic cycle, which constitutes of the stages for conditioning, interaction and elaboration. In the context of balanced leadership, conditioning refers to the formal organizational policies, role descriptions, situational requirements, as well as the informal expectations by the VL when appointing, for example a

HL. These 'conditions' the situation for the HL to work in. By executing the role, the HL interacts either complementarily or incompatibly with these conditions. In either case, the type of interaction and its result in terms of successful or less successful accomplishment of the HL assignment, provide the input for elaboration. This final stage is decisive for either morphostasis, that is, continuing with the current set of conditions, selection criteria for HLs, or HL assignment, or morphogenesis, the change of those. Hence, the transition event in balanced leadership is sociologically theorized through the elaboration stage in the morphogenetic cycle.

This elaboration stage suggests four scenarios that lead to either morphostatic or morphogenetic outcomes. Compatibility between role conditions and the agent's role fulfillment leads to morphostasis. Incompatibility between conditions and agent's role fulfillment leads to morphogenetic outcomes. Incompatibility between conditions and agent, paired with an opportunity for gains (i.e. opportunism) through the agent's behavior leads to either morphogenesis or morphostasis. Extreme incompatibility leads to morphogenesis [12], [27].

Applying the morphogenetic cycle to balanced leadership provides for the following outcomes, which are summarized in Table I. When (1) the conditioning influences, e.g. formal structural influences (factors of environment, context), and informal expectations by the VL are compatible with the way the HL executes the assignment then a morphostatic outcome is indicated. It may be that horizontal leadership is continued and stays with the same HL. In case of partial incompatibility between conditions and HL, the HL's behavior or the conditions may open possibilities for potential gains which the VL wants to exploit, then (2) opportunism emerges. This tends to lead to morphostasis or to morphogenesis, depending on a number of factors, including the predisposition of the VL and the reasons that led to (or even required the use of) opportunism in the first place. Partial incompatibility between conditioning influences and HL's role execution (3) tends to lead to a morphogenetic outcome of the transition process, whereby the conditions and/or the criteria for selection of future horizontal leaders may change. This may imply that the HL is replaced, or continues with amendments. In case of extreme incompatibility between conditions

and HL execution (4) the VL prematurely terminates the HL assignment, which leads to morphogenetic outcome, where HL selection criteria and conditions may be changed.

Table I shows the important role of compatibility for the type of outcome (left and right columns). The mapping of situations for horizontal leadership transition (middle column) provides for a set of situations that may emerge during the transition event and their proposed outcomes.

Table I: Proposed outcomes of horizontal leadership transition

Compatibility Between conditions and agent (HL)	Status of horizontal leadership	Outcome
(1) Compatibility	Conditions and criteria for horizontal leadership are continued without amendments	Morphostasis
(2) Partial incompatibility, but potential for opportunism	Horizontal leadership conditions may be adjusted to the new opportunities and HL continues or not	Morphostasis or morphogenesis
(3) Partial incompatibility	Horizontal leadership is discontinued with HL being replaced	Morphogenesis
(4) Extreme incompatibility	Horizontal leadership is prematurely terminated by VL	Morphogenesis

The next section develops the inherent mechanics of the transition event, using Transition theory.

C. Transition and transition management

The concept of transition is originally used to describe the change of substance state, e.g. from liquid

to gas [13]. Later, however, the application of the term has expanded widely to other disciplines, such as ecology, economics [28], political sciences [29] and management [30] where it is used to describe the change of the system from one state to a qualitatively different one [13]. The shift from one state to another can be complex and chaotic [13]. Transition management (TM) builds primarily on the theories of complex system and governance. The leading Dutch researchers in TM define it as a model of governance [31] which is a multi-level, multi-actor, long-term, process-oriented approach and analytic framework used to both understand and promote transformations of major social systems [13], [30].

At the organizational level, TM focuses on the system shift within organizations or projects [32], [33], [34]. Transition in projects is introduced by Lundin and Söderholm [35, p. 443], who admit that transition in projects might have two meanings: "actual transformation in terms of the distinctive change between "before" and "after", or it can refer to possible (or desirable) perceptions of the transformation or change among project participants". While the former focuses on project tasks, the latter emphasizes the perceptions of relationships and ideas on how to proceed in the transition process (ibid.). Thus, temporary organizations (i.e. projects) may be explained through the dimensions of time, task, team and transition.

Conceptually, TM unfolds through the levels, processes, participating actors, and outcomes. These are explored in the following section.

TM levels. Only a few TM levels are defined, each of them focusing on particular activities: strategic, tactical and operational [34]. Strategic activities take the longest time to implement. They involve problems at societal level and focus on culture (ibid.). Tactical activities are defined at the institutional level and focus on structures while operational activities focus on practices at concrete task or project level (ibid.). Burström and Jacobsson in [34] complement the research on transition in projects and provide the following levels: strategic, operational, functional and attitudinal. Transition in balanced leadership in projects can therefore be categorized as operational level activity, according to Loorbach [21].

Actors in TM. Actors are the individuals involved in the transition with a particular role and purpose.

Loorbach [13] proposes that the number of actors, their roles and competencies depend on the TM cycle stages. Actors at the project level are project participants, including the project manager [35]. Transition in balanced leadership involves two main actors: VLs and HLs. At the transition event, the VL may take leadership authority back or leave it to the HL for another horizontal leadership cycle.

TM process. The definition of TM processes varies from more to less abstract. While some writers [33] [35] see it as a shift from one state to another, other writers depict it as stages of pre-development, take-off, breakthrough, and stabilization [30]. The predevelopment stage indicates no change. The system's shift gradually starts at the take-off stage and reaches its peak at the breakthrough stage. The stabilization stage indicates a slow-down of a change and a new equilibrium being reached (ibid.). Special focus should be given to the break-through stage, as the main tensions and corresponding conflicts should be managed at this stage in order to reach stabilization.

Depending on the relationship between actors and context forces the transition might happen between two stages: "before", when leadership is possessed by the HL, and "after", when leadership is taken back by the VL. The transition might also end with the outcome of leadership staying with the HL.

Outcomes of TM. The outcomes of transition are explained by the Realist Social Theory [12] as described above and result in either morphostasis or morphogenesis.

The mapping of transition management to transition in balanced leadership is shown in Table II. The same table also shows how the explored theories adapt to transition in balanced leadership in projects. We follow the Dutch transition management school [36], and apply transition management in other than societal change contexts, namely the transition event in balanced leadership in projects, which is located at the operational level. Through that, we can observe and compare the situation "before" (the leadership is exercised by the HL) and "after" (the leadership is shifted back to the VL or remains with the HL). Both VL and HL are the actors in the transition process.

In summary, the transition event in balanced leadership takes place at the operational level, it is noticed as a shift from a 'before' to an "after" state, where VL and HL participate as actors. Depending on the

interaction between HL and conditioning influences, two possible transition outcomes exist: morphostasis or morphogenesis. Morphostasis takes place in the case of compatibility between vertical leader and conditioning influences. Hence, the conditions leading to the appointment of horizontal leaders are continued without changes. Morphogenesis occurs in the case of incompatibility between vertical leader and conditioning influences. Consequently, the condition for selecting and appointing horizontal leaders are either terminated or amended. It may also be, that situational logics lead to exploration of new opportunities, then the outcome may either be morphostasis or morphogenesis.

Table II: Summary of transition management analysis

	Transition management	Transition in balanced leadership
TM levels	Strategic, tactical, operational,	Operational level
	functional, attitudinal	
Actors in TM	Number, roles and competencies of	Actors: VL and HL
	actors	Their roles and competences
TM process	The shift from "before" to "after"	The shift from "before" to "after"
	Pre-development, take-off,	transitioning
	breakthrough and conflict management,	
	and stabilization	
Outcomes of	Morphostasis or morphogenesis	Horizontal leadership and/or conditions
transition		for HL assignments are continued or not

The review shows that it remains unclear which variables influence the decisions for morphostasis or morphogenesis, especially in the case of partial incompatibility.

The empirical study described in the rest of the paper tests this along the setting proposed in Table II.

C. RESEARCH METHODOLOGY

The study's design followed the process outlined in [45] and started by defining the underlying ontology. Here, a Critical Realism perspective in the sense of Bhaskar [37] is applied, which assumes that an underlying mechanism (i.e. objective reality), like the assignment of a HL, give rise to events (the HL acting in this position), which then gives rise to experiences (the subjective interpretation of the performance of the HL in his/her role). Hence, this ontology combines objective and subjective worldviews to derive one possible, but not necessarily the only possible explanation of a phenomenon [37]. The overall theory framework that guides this study [2] uses the same philosophical stance. An abductive approach, in the sense of [44] was used by applying existing theories and their variables (as described above) and extending them through the findings made during the interpretive analysis of the interview data, which followed [38] in the process of data condensation, display, drawing and verifying conclusions.

A multiple-case design with eight organizations was used as a research strategy in a mono-method, cross-sectional setting. Along with that, a holistic multiple-case design with a single unit of analysis was chosen [39]. The context of the case studies is Lithuania although most of the organizations have a broad international experience. Maximum variety sampling across different engineering fields was used as sampling approach for the cases. This allows for the identification of generic underlying patterns across cases [39]. Turner and Cochrane [40] define four types of projects depending on how well goals and methods of the project are defined. All of those types include engineering projects in different fields: e.g., civil engineering (type 1), product engineering (type 2), systems engineering (type 3), process engineering (type 4). The variety of analyzed project cases cover all the four types of projects. Projects of different types vary by the intrinsic degree of uncertainty [40], especially in the early phases: from the lowest (type 1), to the highest (type 4). Thus, both the type and the phase of a project may affect the management style.

In order to reduce the impact of these factors, all analyses focused on the late ("implementation") phase featuring the least degree of uncertainty in all types of projects within a life cycle of the final product, system or service development: prototype development (Case 1), IT system launch (Cases 2, 3, 5, and 7), construction phase (Cases 4 and 6), process implementation (Case 8).

For data collection, 30 interviews were conducted with project managers and team members in projects of different sizes, project types, and roles in the projects (the most knowledgeable respondents were chosen from the roles of project manager and team member per case, except Case No 8, which is explained below. The case details are shown in Table III.

Table III: Cases and interviews

Case	Organization type / engineering project	Employ	Project managers	Team members
	type	ees	(Interview nb.)	(Interview nb.)
1	Biotechnology / product engineering	>500	3 (I13, I14, I15)	2 (I16, I17)
2	Financial services / IT systems engineering	>500	3 (I1, I2, I3)	1 (I10)
3	Telecom / IT systems engineering	>500	1 (I29)	1 (I30)
4	Public sector / civil engineering	>500	2 (I4, I5)	1 (I6)
5	5 Financial services / IT systems engineering		2 (I23, I24)	4 (I25, I26,
				I27, I28)
6	Energy / civil engineering	>260	2 (I8, I9)	2 (I11, I12)
7	IT / IT systems engineering	>50-249	5 (I18, I19, I20,	-
			I21, I22)	

8	IT consulting / process engineering	<50	-	1 (17)
	Total		18	12

The main focus of Organization 1 is biotechnology research and development for cutting edge life sciences globally. Here projects are run by multicultural teams, located in Lithuania and serving customers globally. Organization 2 is a large international financial corporation, servicing both global and local customers, here the IT department was interviewed. Organization 3 is a leading multinational telecom company, serving regional (Baltic) markets. Organization 4 is a major player in the public sector aviation industry. Organization 5 is a local branch of a multinational finance sector provider, where we interviewed the IT department. Organization 6 is a state-owned mid-size energy sector organization. Organization 7 is a local IT organization with multiple business lines and both local and international customers. Organization 8 is a private consulting organization for IT services in Lithuania. Overall, 18 project managers and 12 project team members were interviewed. In the Case 8 the interview confirmed previous findings and we did not see the need for continuation.

Reliability was pursued through an upfront developed case study protocol [39], covering: (1) General questions about the organization and projects, methodologies, and leadership; (2) Questions about exercising balanced leadership within the project, and continuing or terminating horizontal leadership under different conditions, based on balanced leadership theory [1] and realist social theory [9]; and (3) questions on the relationship between VL and HL, with different sets of questions used for different roles.

The questions (listed in the Appendix) were piloted using a team of researchers and a focus group.

Validity of the data was pursued through several means as suggested by Yin [39], like asking for multiple sources of evidence and having key informants reviewing the case study report for construct validity; using pattern matching and explanation building for internal validity; and replication logic through multiple case design for external validity.

The interviews were pre-agreed with a contact person per case, who identified the further interviewees. Informed consent was pursued by informing the interviewees upfront about the study, and, after their acceptance by providing them with a list of potential questions. The interviews were carried out by one researcher in a semi-structured manner, face-to-face. The permission to record was obtained. On average, the interviews lasted approximately one hour each and were subsequently transcribed for analysis. Following the ethics requirements within qualitative research, confidentiality was guaranteed to each informant.

Data analysis began by reading each transcript. Codes were applied to transcripts in Atlas-ti version 8, by using deductive coding, for which a code-frame was developed to classify data into four outcome cases depending on compatibility or incompatibility between vertical leader and conditioning influences. The fourth author assigned codes and reviewed and summarized the data.

D. RESULTS

A. Data analysis.

Before proceeding with in-depth analysis, it was verified that all cases related to operational level activities, according to [13]. Related examples are from (I13) "our product manager has to make two world-level presentations of our product", or (I1) "we had to migrate files from one system to another". The interpretation of data and their development into codes and then patterns followed Alvesson and Sköldberg's [44] approach for abductive reasoning, based on the three pillars of induction: a) the data, b) the theoretical frameworks (here transition theory and the morphogenetic cycle) and c) the researchers past experience (which is outlined by [44] as an essential component for abductive research). The interview transcripts were scanned for patterns. A number of categories emerged from this, for example, those for compatibility and incompatibility quotes, or HL performance, HL leadership style and others. Labels were then assigned to quotes to help analyze the patterns. Some groups of quotes were large enough to identify sub-patterns, such as for "HL performance low" and "HL performance high". This

identified nine groups of quotes (codes) related to HL leadership style, three groups related to the level of HL motivation, eleven groups related to the type of lessons learned, etc. – 80 codes and sub-codes were identified in total, out of 576 quotations.

Below an example from the (I6) excerpt when the interview participant talked about a situation in a project after which a new task was given to the same HL:

"Competence was medium, but motivation at that time was high".

Three codes were assigned to this sentence:

- "Situation A1" this code was assigned to that part of the interview where the participant talked about a situation after which a new similar task was assigned to a HL.
- "HL competence" assigned to passages where participants talked about HL competence.
- "HL motivation high" assigned to sentences where VL judged HL motivation as high.

Within the given theoretical frameworks mentioned above, patterns were predominantly identified through code co-occurrences, where some codes overlapped, and could logically be merged into a pattern. Other patterns emerged from codes that rarely or never overlapped, and could not be merged, hence emerged from unmerged codes.

B. Findings

The interview transcripts were analyzed for four possible outcome cases, described in the theoretical part (Table II), resulting in four situational logics, which reflect the level of compatibility between the Conditions and the HL's actions. Each situational logic is structured by the transition variables described further on this article, which are: *Actors* (with the dimensions for performance and knowledge, leadership and management style, as well as psychological and human relations factors), *conditions* (with the dimensions for quality of work, and communication style adaptation), and *transition context* (with the dimensions for HL replacement available, and stableness of internal and external conditions).

I. Situational logic – compatibility. Outcome – morphostasis.

In this situational logic, horizontal leadership continued without amendments. The outcome of this HL transition was morphostasis.

Actors - performance and knowledge characteristics of HLs were mentioned as criteria to decide on the continuation in their role, such as competence and record of accomplishment in "we decide according to competence and historical evidence how the tasks were completed before. What was the result?" (126). Another VL embraced the continuation with the same HL due to these characteristics, despite changes in context: . "The same HL was assigned, when I saw the potential to develop the needed skills fast. There was no time for slow-pace learning. The HL's ability to learn fast was crucial" (129). Leadership and management style was another dimension of the actor characteristics. Here, (15) described the leadership style of the HL as inspirational, adaptive, and transformational. Psychological and human relations factors were also mentioned as decisive for the HL's continuation in the role, such as benevolence and motivation of the HL: "I was feeling involvement and responsibility from the very beginning"; "it was visible that he likes it [the task], he pays a lot of attention to details", (15).

Conditions - Quality of HL work in respect of condition fulfillment was a major factor in deciding on retaining the HL: "one of the most outstanding team members in this project who created additional value, also raised ideas how to deliver more efficiently – it was very much valued" (I1).

Similarly identified (I21) high quality standards "he [HL] just always wanted to deliver good results", and (I23) provided the reason for being sensitive to this dimension "[VL] tries to make this in order to

Communication style adaptation – exemplified by (I5), who identified changes over time, starting with a relationship that was "rather cold than warm", but at the time of transition the "formality level disappeared completely, relationships were warm and non-formal".

help the team".

Transition criteria - *Trust* was very high in these settings "we can easily ask for each other's help" (I27), or "it is important to know what kind of person you are working with" (I27). A number of

examples showed that condition fulfilment in terms of performance and knowledge led to trust-based cooperation between HLs and VLs, as in (I15) "... now I can formulate the task at the macro level and specification of micro-tasks becomes unnecessary", or later in the same interview "I delegate a lot of responsibility to this person and I can skip control entirely as I know I will be contacted when my participation will be needed".

Transition context – Lacking *possibilities to replace the HL* was mentioned as a context factor for HL assignment continuation, because there "is no one to replace him with" (I8).

Stability of internal and external conditions was most often given in this situational logic. However, in (I29) "the budget is cut" and the VL decides to "compromise and continue with the same HL, but amend his task (scope or cost or time frame)".

II. Situational logic – partial incompatibility. Outcome – morphostasis

In this situational logic, the VLs decided to stay with the same HL, but for different reasons

Actors - Psychological and human relations factors made the VL in (I9) continue with the HL despite perceived underperformance: "Even if there would be possibilities to change this person with another one, I would not do this. Firstly, it deteriorates the relationship between colleagues. And secondly, nobody knows everything from birth".

Condition - Communication style adaptation followed the development of trust over time, as in (I9). At the start the relationship was "strictly business", but over time the "relationship became less formal".

Transition criteria - Trust developed over time and was characterized by less control, as in (I18): "To

the end of the assignment I didn't need to control the person so much, as I trusted him more".

Transition context - Replacement of HL was not possible in this situational logic, as in (I2) "There were no other choices available. Other team members did not have the mandate for representation".

III. Situational logic – partial incompatibility. Outcome – morphogenesis

In this situational logic, horizontal leadership was continued with amendments, leading to morphogenesis.

Actors - *Performance and knowledge* shortcomings on the side of the HL became visible and were dealt with in terms of changing the conditions, as the VL in (I29) states "for example, I can amend the task, if it appears, that the HL is not competent enough, but still OK to carry on (I keep him in the team)". Or as in (I10) where the HL was lacking speed in performance.

Leadership and management style was a further factor leading to morphogenesis, especially when the leadership style was perceived as passive (I15), lacking initiative (I7), or even being hostile (I9).

Psychological and human relations factors included the HL not taking on responsibility, ownership, or showing motivation (I7 and I25).

Condition - *Quality of HL* work was described in terms of incompatibility with the conditions. For example in situations where the HL was lacking benevolence, and thus the original informal conditions were not met, the VL lowered his trust in the HL. Like in (I15): "based on this experience I draw the lesson for me that I can't treat every new team member as a trustworthy person".

Communication style adaptation – followed the development of trust, with deteriorating trust communication becoming more formal and loaded with more control elements: "the mechanism of control and direct orders is getting stronger" (I17).

Transition criteria

Control emerged over time as transition criteria, replacing the initial trust (see verbatim from (I17) above.

Transition context - *Replacement of HL* was possible and used as a trigger for morphogenesis in this situational logic.

IV. Situational logic – extreme incompatibility. Outcome – morphogenesis

The outcome of this situational logic was the termination of the HL role.

Actors - Performance and knowledge of the HL plays a major role in the termination decision, as the interviewee in (I24) stated "When I see that a member of the project team is just not up to the task, then I raise the question if I should replace him". In other cases the decision to terminate the appointment might be made by HL himself: "once we worked under high time-pressure, and the guy just could not withstand it, he just left. But it was his decision" (I29). Other mentioned lack of competence and motivation of the HL (I8), or that tasks are not accomplished (I15 and I18). Or more general reflections by the VL, such as: "...he does not meet expectations ... this is unacceptable and I need another person to replace him" (I24).

Leadership and management style was described as weak or non-existent by (I15), or as unbalanced by (I29), where the "HL experienced a role-conflict in the process. He kind of accepted the lead, and accountability, but at the same time, not the responsibility, so to say".

Condition - Quality of HL work was described as not meeting the informal conditions "too much of my effort was required to explain, and after that to get unacceptable results again and again", or "I have seen many times that it was tried but didn't succeeded" – the VL summarized in (I15).

Transition criteria -Relationship in this case were deteriorating "from higher trust to lower and lower" (I15), leading to control as transition criteria.

Transition context - *Replacement of the HL was possible* in this situational logic.

At times a lack of *stability in the external context* were mentioned as triggers for HL termination, e.g. budget cuts (I29).

C. The variables in the transfer event

In the following we discuss the identified dimensions for transfer in balanced leadership. This is followed by Table IV, which shows the relationship between the transitions dimensions and the transition results (morphostasis or morphogenesis) as indicated through the interviews. First the dimensions.

Transition outcomes. There might be two possible outcomes of transition in balanced leadership: morphostasis or morphogenesis. Morphostasis means that the conditions and criteria in selecting HLs for

similar situations in the future will not change. In some cases the HL's appointment will even be extended. This is typically a result of compatibility between the HL and the conditions of the role, which builds up trust as a transition criteria. An example is the natural end of a temporary HL appointment, where the HL steps back into the team and either the VL or another HL takes over. No changes to the conditions are made. However, even in cases of slight incompatibilities, external factors, such as the lack of an alternative HL or the desire to keep the current team composition and culture, can turn an otherwise morphogenetic decision into one of morphostasis.

Morphogenesis presents itself in several ways. The first one is an amendment of the current situation, where the tasks and the conditions are adjusted to the HL and his/her role, with the HL staying in place. This is typically marked by a partial incompatibility between HL and the conditions. Alternatively, this may apply to situations where the HL appointment comes to its natural end, but the lessons learned from the appointment lead to a change of the conditions for future appointments. A third form would be the premature termination of the appointment by the VL because of reasons grounded in the actors compatibility, personality and the resulting impact on the trust base, or contextual forces that require termination.

Transition mechanisms. The transition of HL is determined by transition mechanisms. In line with [12] we identified three of them: compatibility, partial, and extreme incompatibility between the HL and the conditions for the HL role. In cases of compatibility there is a match between the conditions (typically the VL expectations) and the HL's work. Partial incompatibility between conditions and HL can lead to either morphostatic or morphogenetic results, depending on external factors (such as the lack of alternatives to the present HL will enforce morphostasis). Extreme incompatibility leads to the premature termination of the HL appointment.

Actors and their characteristics. VL and HL are the two main actors. The analysis identified three dimensions of the actors and their characteristics (see Table IV).

- Performance and knowledge of the HL: This relates to the VL's perception of the HL's performance in the role and the level of knowledge required to fulfill the role. This ranges from very high in cases of compatibility (see quotations above related to Situational Logic I: I26, I29) to low in case of partial incompatibility (Situational Logic III: I10, I29), to very low in cases extreme incompatibility (Situational Logic IV: I15, I18, I24).
- Leadership and management style of the HL: This addresses the VL's perception of the HL's expression of leadership and the motivation to fulfill the leadership role. It ranges from inspirational, motivational, transformative etc. in cases of compatibility (Situational Logic I: I5), to lacking ownership, initiative, or passiveness (Situational Logic 3: I9, I15, I17) in cases of partial incompatibility, to no leadership or acceptance of leadership responsibility (Situational Logic IV: I15, I29) in cases of extreme incompatibility.
- Psychological and human relations factors: This addresses the presence of particular personality characteristics which are perceived as crucial by the VL to be shown by the HL. This includes benevolence and motivation (Situational Logic I: I5) in cases of compatibility, via ability to learn (Situational Logic II: I9) to the lack of responsibility, ownership of the task, or even hostile leadership in case of partial and extreme incompatibility (Situational Logic IV: I7, I9, I15).

Conditions. The conditions are the formal and informal requirements for the HL role. Formal requirements are related to the legal, as well as governance and management related requirements stemming from the role as a leader in an organization. These are typically laid out in the organizational policies, for example in form of project management policies. Informal conditions relate to the expectations on the side of the VL in terms of the ways the HL should fulfill his/her role. This includes explicitly as well as implicitly

stated expectations on the side of the VL, which form the basis for a judgment on the compatibility or non-compatibility between the conditions and the HL's work.

The data showed two dimensions of conditions:

- Quality of HL's work: This addresses the VL's perceived quality of the HL's work in the leadership role. It ranges from outstanding and creation of additional value (Situational Logic I: I1, I23) in cases of compatibility, to missing role fulfillment due to lack of benevolence (Situational Logic III: I15) in cases of partial incompatibility, and to unacceptable levels of required explanations and repetitive failure in fulfilling the role (Situational Logic IV: I15) in cases of extreme incompatibility
- Change of communication style: This addresses the change in communication between VL and HL stemming from a change in trust between them over the course of the HL assignment. This ranges from decrease of formality (Situational Logic I and II: I5, I9 resp.) in cases of compatibility and partial incompatibility, to increased formality, loaded with more and more control elements (Situational Logic III: I17) in cases of incompatibility

Transition criteria. Our study identified a continuum of trust-based to control-based criteria that influence the transition outcome. This ranges from trust-increase, making it easy to work together (Situational Logic I: I15, I27), via "warmer relationships" over time (Situational Logic II: I9) and increase in control (Situational Logic III: I17) in cases of partial incompatibility, to deterioration of trust (Situational Logic IV: I15). The findings echo the results by [2] and [41] on trust building in professional settings. Moreover, the present study explains the decision for morphogenesis or morphostasis through the eyes of the VL, which complements the findings of [11] who take on a HL perspective.

Transition context. The context of transition is explained by context changes and resource factors. External context factors consist of changes in organizational strategy and structure. More often, however, internal (project-related) factors were mentioned: project scope, requirements, budget, project team

composition, which is supported by [33]. Changes in the mentioned context factors may or may not be the reasons of shifting leadership back to the VL or another HL. The combination with other transition criteria mentioned further is decisive for this.

- Replacement for HL possible. This addresses the general availability of a replacement for the current HL when this is indicated. It ranges from non-availability (Situational Logic I and II: 18, I2 resp.) in cases of compatibility and partial incompatibility (i.e. morphostasis), to a general availability in cases of morphogenesis
- Stability of conditions: This addresses possible changes in budget, scope and other project internal factors. It ranges from stability or changes in the tasks following externally imposed budget cuts (Situational Logics I: I29) in cases of compatibility, to termination of the HL role (Situational Logic IV: I29) in cases of extreme incompatibility.

Table IV summarizes the analysis results by showing the transition outcome in relation to the variables and the patterns identified in the variable dimensions across the four situational logics.

Table IV: Relationship between transition dimensions and outcome

Transition outcome	nsition outcome Morphostasis		Morphogenesis	
Situational logic		II	III	IV
Transition mechanisms	Compatibility		artial patibility	Extreme incompatibility
Actors: HL performance and knowledge HL leadership and management style HL/VL psychological and human relations factors	High Strongly expressed Benevolence, motivation			Low Not visible Lack of responsibility and ownership
Conditions: HL quality of work VL-HL communication style adaptation Transition criteria	Outstanding, value creation • Decreasing formality • Trust •			Repetitive failure Increasing formality Contro
Transition context: Replacement of HL possible Stability of external context Stability of internal context	No ← Stable ← Stable ←			Yes Unstable

E. DISCUSSION

A. Towards a theory of transfer in balanced leadership

The following section builds a theory from the findings described above. We follow the 4-step theory building process by Whetten [42], who proposes a way to develop the four essential elements which provide for a complete theory, these are the:

- 1) What the main constructs of the theory, which explain the phenomena, such as the variables identified above. Selection should be made based on the constructs' relevance and parsimony. Hence only the most relevant construct should be included [42].
- 2) *How* the relationships between the constructs. These are "the "arrows" to connect the "boxes [constructs]", which shows the logic of the underlying model [42, p.491], and possibly indicate causality.
- 3) Why the "underlying psychological, economic, or social dynamics" which give credit to "the reasonableness of the proposed conceptualization" [ibid, p. 491]. This is typically accomplished by describing the observed regularities [46].
- 4) When/Where/Who the limitations and boundary conditions for the proposed theory. This includes temporal and contextual factors, providing for the level of generalizability of the theory [42].

The following applies this process:

Step 1 (the What): The variables are Context, Actors, Conditions, Mechanisms, Criteria, and Outcomes, as described above. Their sequence, which finally leads to the transition outcome, is initiated by the interplay of the actors with the conditions for the HL role. Similar to [25], the Actors, both VL and HL with their particular characteristics, expectations and interpretations of the conditions engage in a reflection on the fulfillment of the HL role. This reflection flows into an evaluation and a decision in the mechanism constructed on the level of compatibility of the HL's agency and its role conditions. The VL's perceived level of compatibility or incompatibility determines the situational logic (as shown in Table IV) contingent on transition context. The nature of the (non-) compatibility influences the base of the VL

- HL interaction as either predominantly trust-based or control-based which echoes the results of [5]. With the given state of transition mechanism (compatible or incompatible), criteria (trust or control relationship) and enabling or disabling context, a decision is made on the outcome as either being morphostatic or morphogenetic. This is empirically supported, for example, by the VL in (II) who perceived the HL performance (Actor variable) as very high, which led to compatibility (i.e. influenced the Mechanisms variable). The link between compatibility in the Mechanisms variable and trust in the Criteria variable was well illustrated by (II3): "When you meet a person first time, you don't know to what degree you can trust him. and with the time trust grows... I noticed that everything is being delivered on time. And I was getting more relaxed [towards the HL)]". In both interviews this was described as leading to morphostatic outcome.

Step 2 (the How): At the core of the sequence described in Step 1 above lies the Mechanisms variable. This variable is informed by the actors and condition variables, which are both contributors to the theory as they provide for the "because of..." in terms of a judgement on the level of compatibility in the mechanism variable. This judgement informs the subsequent criteria variable, which determines the nature of the control that the VL exercises over the HL. This provides for the "in order to ...". An example is shown Table IV, Situational logic I: *Because of* the high levels of benevolence, motivation and appropriate leadership style of the actor, in accordance with the fulfillment of the condition of delivering high quality task outcomes, the decision of the mechanisms variable is one of compatibility. This is a requirement at the criteria variable *in order to* build a trust-based control structure. Similar judgements can be found in the identification stage as shown in [7].

The context acts as enabler or disabler. Like in Situational Logic II (Table IV), where a morphogenetic outcome is indicated due to incompatibilities, but cannot be executed as the context does not provide for alternative resources as HL.

The final outcome decision for morphostasis or morphogenesis is based on the results of the

mechanisms variable, enabled (or disabled) by the context and mediated by the criteria variable with its control structure and the implications stemming from high or low levels of trust in the VL – HL relationship. Higher levels of trust are supportive of decisions for morphostasis, and vice versa. The moderating role of external context is shown for example in (I22). Here the VL was happy with the HL performance "He is very efficient. Apart of doing his work, he also support technical direction of the entire team", the trust was here ("Do you trust him?" – "Very much!"), however an external context factor budget cut ("We got the request to save the budget"), led to morphogenesis as outcome – the horizontal leadership was not continued as the task needed to be terminated.

Step 3 (the Why): The transfer event resembles a continuation of the governance role that the VL takes on during the preceding balanced leadership event, namely Horizontal Leadership & Governance as found previously by [5]. Hence, the theory developed in the present paper takes a governance perspective, whereby control in a self-regulating system (here: comparison of actor and condition) leads to judgements on compliance (here: mechanisms), which determines the nature of the underlying control structure as either being trust or control (here: criteria), all in contextual contingency and with the aim of self regulation (here: morphostasis or morphogenesis). This is similar to governance theory as described in for example [43] in the context of governance of projects. Hence, the governance perspective is one of the boundary conditions, as other perspectives would lead to different variables and models. For example, an organizational behavior or psychology perspective would most likely emphasize variables around sensemaking and/or socio-cognitive space. While these are valid contributions, they have not been included in pursuance of parsimony for the model and its application in further investigations. To that end a small, but essential set of variables was pursued to mirror the essential functions of the transfer event.

Step 4 (the When/Where/Who): The decision for morphostasis or morphogenesis as a result of the mechanism and criteria construct in contextual contingency is likely to be a necessity at the end of

temporary shifts of leadership authority from the VL to others. Examples include the shift to entire teams for temporary leadership, using shared/distributed leadership; or individuals external to the project team, in form of interim management; or individuals within the team, like in horizontal leadership. To that end, the model is supported by a wide range of literature suggesting evaluations in form of lessons learned and alike at the end of temporary assignments. The study here emphasizes this for the particular case of horizontal leadership in projects, which in itself must be enabled by the VL. Other boundary conditions that support balanced leadership and the transfer event are described, for example, in [8] and include project specific criteria, such as waterfall methodologies and person specific criteria, such as the preparedness of individuals to take on the HL role in its entirety, including responsibility and accountability. Non-vertical leadership, such as horizontal leadership is more likely in complex projects and organizations with higher levels of project management maturity, hence implicitly outline further possible boundary conditions for the theory developed herein [8]. *Fig. 1* depicts the described model.

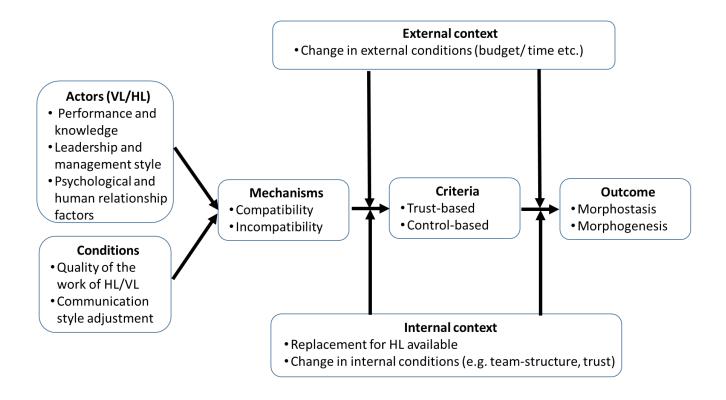


Fig. 1: A theoretical model for a transfer event in balanced leadership

B. Discussion on research questions

We can now answer the research questions:

RQ1: What are the particularities of the transition event after a horizontal leader assignment?

The particularity of the transition is the difficulty in predicting a morphostatic or morphogenetic outcome of the transition event. The results show that polar events, with either high compatibility or extreme incompatibility between HL agency and positional conditions lead to predictable outcomes of morphostasis and morphogenesis respectively like described by Archer [12]. These are shown as Situational Logic I and IV in Table IV. The former applies to high compatibility in terms of HL agency and conditions, high quality in task fulfillment and high levels of trust in a generally stable context, which leads to morphostasis. The opposite is seen in Situational Logic IV, where the HL's failure to meet the conditions in terms of quality of task execution, as well as the required personality traits in, for example, leadership and management leads to loss of trust and subsequent morphogenetic outcome.

However, in-between these extremes the outcomes are more difficult to predict and depend on a number of dimensions that influence the outcome decision. This is shown as Situational Logic II and III. Beside the obvious need for at least partial compatibility between HL's agency and the conditions, the outcome decision is influenced by the personality of the actors and the trust level that stems from it, as well as the transition context. Context appears as enabling or disabling the possibility for the VL to decide himself/herself on the outcome. Situational Logic III shows an example for enabling, which allows the VL to make adjustments to the task and conditions, but to retain the HL as a leader. Situational Logic II exemplifies disabling by hindering the VL to implement a preferred solution, such as replacing a HL, by not providing a possible resource for that. Beside these contextual contingencies, Situational Logic II shows that the VL's desire for a particular team setting may override the negative performance judgement on the HL and leads to morphostatic outcome. Situational logic III indicates that negative judgement on the HL's personality fit with the situation, plus poor fulfillment of conditions leads to deteriorating levels

of trust and morphogenetic outcomes.

In other words, actors, conditions, criteria and context all contribute in a particular way to the outcome decision, whereby the strength of the contribution depends on the context and the situation.

RQ2: What is the nature of this transition in terms of variables and their impact on transition outcomes? The nature of the transition and its variables is shown in Fig. 1 and described through the theory developed in the section above. In a given enabling or disabling context, the VL as one of the actors reflects on the HL's fulfilment of the formal and informal conditions associated with the HL's role as temporary leader. This results in a judgement of compatibility or grade of incompatibility, where higher levels of compatibility lead to more trust-based relationships and positive criteria for a morphostatic outcome decision. Higher levels of incompatibility are reflected in higher levels of control and discontinuation attitudes on the side of the VL, hence morphogenetic outcome decisions. The particular combinations of context, mechanisms, and criteria lead to the outcome decision. Four patterns of combinations were identified and linked to two possible outcomes. These are described in the paragraph above, shown in Table IV, and described as Situational Logics I to IV.

F. CONCLUSIONS, THEORETICAL AND PRACTICAL IMPLICATIONS

This study empirically investigated the transfer event of HL's in balanced leadership. This event emerges at the end of the HL's temporary appointment and is marked by a reflection on the particular interaction between the HL as agent and the conditions that were imposed on the HL when accepting the temporary role. Using Realist Social Theory, two possible outcomes were investigated, namely morphostasis (i.e. no change to conditions in future assignment, no change of HL in future assignments of the same type), and morphogenesis (i.e. changes to conditions and/or person to be selected in future assignments of similar type). The process leading to this decision was investigated using transition theory,

which was here applied to the operational level and supported the development of a theory as depicted in *Fig. 1*. Empirically, the study is based on 30 interviews in a cross-sectional setting, which were analyzed abductively, guided by both theories mentioned above, which were extended by the findings from the data.

Theoretical implications. The results include a number of theoretical implications. First is the new theory on transfer of HL's within balanced leadership. This expands leadership theory into a projectspecific space. Most of the existing leadership theory for projects is adapted from general leadership theory and only recent developments, like that of balanced and horizontal leadership, reveal forms of leadership that are predominantly found in projects [2], [25] The present study has provided empirical evidence and a conceptualization of the last of the five leadership events in balanced leadership, hence completed the empirical underpinning of balanced leadership theory. With horizontal leadership being the breeding or testing ground for new, potential project managers [2], [17], this theory contributes to the wider question of how managers are identified and selected, thus makes a contribution to a long standing discourse in general management theory. Other implications include the extension of Realist Social Theory and transition theory in the realm of projects and their management. The present study has refined the suggestions from Realist Social Theory by providing more granulate criteria and dimensions that lead to morphostasis and morphogenesis, including the crucial role of context. Similarly, it has extended transition theory by providing exemplary dimensions for the before, during, and after state of transition (Fig. 1).

Managerial implications include the insight into the mechanics of HL appointment (dis-)continuation, which can be used by practitioners to purposefully apply the variables shown in *Fig. 1* to lead the process to desired outcomes. Examples may include a stronger awareness for identifying informal and unarticulated requirements for the HL role. To avoid morphogenetic outcomes, the prospective HLs should have in-depth discussions (if not negotiations) with their VL to identify the details of the conditions for fulfilling the HL role, and the criteria and thresholds used by the VL to judge on the HL's performance.

Similarly, should context variables, such as possible budget restrictions or anticipated scope changes, be taken into account before a HL role is accepted. Clarity about the expectations in each of the four variables (Actors, Conditions, Transition Criteria, and Transition Context) will help avoiding negative surprises for both VL and HL. The theory may also be used in training and education to make project team members and potential project managers aware of the dynamics in projects, such as those stemming from horizontal and balanced leadership. Hereby especially the chances that every team member might be asked to temporarily lead the project because of his/her expert knowledge. When these situations arise, the stated managerial implications should be known and applied.

The strengths of the study include its robust theoretical base with long-established Realist Social Theory and transition theory. A further strength is the clearness of the patterns that emerged from the data, giving raise to credibility and reliability of the findings. As in all studies, there are also weaknesses. Despite the attempts to reduce them methodologically, (e.g. through abduction and use of existing theoretical frameworks) they might have influenced the results. Limitations include the nature of qualitative and abductive research, with relatively small samples sizes and subjective interpretation of data, may limiting the generalizability of the results across the wide variety of balanced leadership transfer situations. Similarly, the geographical focus on one country and the focus on engineering projects only might lead to overrepresentation of some project types and country specific characteristics, hence limit generalization to projects in general. A further perceived limitation might be the exclusion of the leadership style of the horizontal leader. However, this is published in [25] and therefore not addresses herein. The underlying ontology builds on the notion that the findings provide for one possible, but not necessarily the only explanation of the phenomenon. Hence, there may be rival theories (in the sense of [39]) to the one developed here.

This indicates opportunities for future research in terms of more quantitative and global studies to validate and potentially expand the current findings. Future studies could address research questions about the

nature of the change in communication and leadership style of HLs across different situational logics. Oher questions could address the relative impact of the model's variables on the outcome decision in each situational logic, providing for the significance of particular variables' combinations that lead to either of the two possible outcomes. Moreover, future studies may take different theoretical lenses to identify further dimensions of decisive nature for outcome decisions in HL transfers. This could include management theory perspectives to address questions about the influence of different approaches to planning and control as boundary conditions for the theory. Psychological perspectives can be used for studies on the personality profiles of HLs (as done in [4] for VLs) to identify potential 'fit' scenarios between HLs and leadership situations in projects, or between HLs and VLs personalities, as well the relationship between these 'fit' scenarios and project performance. Organizational theory studies may address questions about the impact of different organizational structures, or the use and distribution of power in organizations on the functioning of the model and the impact on project results.

The study provided new insights into how HL's are evaluated and potentially re-appointed. The contribution to knowledge lies in the new theory that stems from the study and the variety of implications it has for theorizing in project management, as well as management and leadership in general.

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REFERENCES

- [1] R. Müller, J. Packendorff, and S. Sankaran, "Balanced Leadership: A New Perspective for Leadership in Organizational Project Management," in *Cambridge Handbook of Organizational Project Management*, S. Sankaran, R. Müller, and N. Drouin, Eds. Cambridge, UK: Cambridge University Press, 2017, pp. 180–193.
- [2] R. Müller, S. Sankaran, N. Drouin, A. Vaagaasar, M. C. Bekker, and K. Jain, "A theory framework for balancing vertical and horizontal leadership in projects," *Int. J. Proj. Manag.*, vol. 36, no. 1, pp. 83–94, 2018.
- [3] C. M. Scott-Young, M. Georgy, and A. Grisinger, "Shared leadership in project teams: An integrative multi-level conceptual model and research agenda," *Int. J. Proj. Manag.*, vol. 37, no. 4, pp. 565–581, 2019.
- [4] J. R. Turner and R. Müller, Choosing Appropriate Project Managers: Matching their leadership style to the type of project. Newtown Square; USA: Project Management Institute, 2006.
- [5] M. Pilkienė, R. Alonderiene, A. Chmieliauskas, S. Šimkonis, and R. Müller, "The governance of horizontal leadership in projects," *Int. J. Proj. Manag.*, vol. 36, no. 7, pp. 913–924, 2018.
- [6] S. Sankaran, A. L. Vaagaasar, and M. C. Bekker, "Assignment of project team members to projects: Project managers' influence strategies in practice," *Int. J. Manag. Proj. Bus.*, vol. online, 2019. DOI 10.1108/IJMPB-12-2018-0285.
- [7] R. Müller, F. Zhu, X. Sun, L. Wang, and M. Yu, "The identification of temporary horizontal leaders in projects: The case of China," *Int. J. Proj. Manag.*, vol. 36, no. 1, pp. 95–107, 2018.
- [8] M. Yu, A. L. Vaagaasar, R. Müller, L. Wang, and F. Zhu, "Empowerment: The key to horizontal leadership in projects," *Int. J. Proj. Manag.*, vol. 36, no. 7, pp. 992–1006, 2018.
- [9] D. B. Aartun and A. E. Særsland, "Daring to Dream: Leadership practices in Norway's U20 National Football Team," unpublished Master's thesis, BI Norwegian Business School, 2019.
- [10] Ø. Kvalnes, Digital Dilemmas: Exploring Ethics and Social Media in Organizations. Palgrave Macmillan, Cham, Switzerland: Palgrave Pivot, 2020.

- [11] L. Li, R. Müller, B. Liu, Q. Wang, S. Zhou, and G. Wu, "Horizontal-leader identification in construction project teams in China: How Guanxi impacts coworkers' perceived justice and turnover intentions," (under review).
- [12] M. Archer, *Realist social theory: the morphogenetic approach*. Cambridge, UK: Cambridge University Press, 1995.
- [13] D. Loorbach, "Transition management. New Mode of Governance for Sustainable Development".

 Utrecht: International Books, 2007.
- [14] S.G. Green. "TOP Management Support of R&D Projects: A Strategic Leadership Perspective". IEEE Transactions on Engineering Management, 42 (3), pp. 223-232, 1995.
- [15] S.Faraj, V.Sambamurthy. "Leadership of information systems development projects". IEEE Transactions on Engineering Management, 53 (2), pp. 238-249, 2006.
- [16] R. Müller, J. Geraldi, and J.R.Turner. "Relationships between leadership and success in different types of project complexities". IEEE Transactions on Engineering Management, 59 (1), art. no. 5730485, pp. 77-90, 2012.
- [17] E.Karahanna, and R.T.Watson. "Information systems leadership". IEEE Transactions on Engineering Management, 53 (2), pp. 171-176, 2006.
- [18] N. Drouin, S. Sankaran and R. Müller. "Balancing leadership in projects: The role of the sociocognitive space." (under review).
- [19] C. L. Pearce and H. P. Sims, "Vertical versus shared leadership as predictors of the effectiveness of change management teams: An examination of aversive, directive, transactional, transformational, and empowering leader behaviors.," *Gr. Dyn. Theory, Res. Pract.*, vol. 6, no. 2, pp. 172–197, 2002.
- [20] L. Crevani, M. Lindgren, and J. Packendorff, "Shared leadership: a post-heroic perspective on leadership as a collective construction," *Int. J. Leadersh. Stud.*, vol. 3, no. 1, pp. 40–67, 2007
- [21] R. Bolden, "Distributed leadership in organizations: A review of theory and research," *Int. J. Manag. Rev.*, vol. 13, no. 3, pp. 251–269, 2011.

- [22] S. Pretorius, H. Steyn, and T. Bond-Barnard, "Exploring Project-Related Factors That Influence Leadership Styles and Their Effect on Project Performance: a Conceptual Framework," *South African J. Ind. Eng.*, vol. 28, no. 4, pp. 95–108, 2017.
- [23] S. Sankaran, A. L. Vaagaasar, and M. C. Bekker, "Assignment of project team members to projects: Project managers' influence strategies in practice," *Int. J. Manag. Proj. Bus.*, vol. online, 2019. DOI 10.1108/IJMPB-12-2018-0285.
- [24] R. Müller, F. Zhu, X. Sun, L. Wang, and M. Yu, "The identification of temporary horizontal leaders in projects: The case of China," *Int. J. Proj. Manag.*, vol. 36, no. 1, pp. 95–107, 2018.
- [25] N. Drouin, R. Müller, S. Sankaran, and A. L. Vaagaasar, "Balancing vertical and horizontal leadership in projects: Empirical studies from Australia, Canada, Norway and Sweden," *Int. J. Manag. Proj. Bus.*, vol. 11, no. 4, pp. 986–1006, 2018.
- [26] M. Muethel and M. Hoegl, "Shared leadership effectiveness in independent professional teams," *Eur. Manag. J.*, vol. 31, no. 4, pp. 423–432, 2013.
- [27] M. S. Archer, Being Human: the Problem of Agency, 2000th ed. Cambridge, UK: Cambridge University Press, 2000.
- [28] D. Loorbach, "Transition management for sustainable development: a prescriptive, complexity-based governance framework". *Governance*, vol. 23, no. 1, pp. 161-183, 2010.
- [29] J. P. Voß, A. Smith, and J. Grin, "Designing long-term policy: rethinking transition management". *Policy sciences*, vol. 42, no. 4, pp. 275-302, 2009.
- [30] J. C. Stephens, and A. C. Graham, "Toward an empirical research agenda for sustainability in higher education: exploring the transition management framework", *J. of Cleaner Production*, vol. 18, no. 7, pp. 611-618, 2010.
- [31] R. Kemp, D. Loorbach, and J. Rotmans, "Transition management as a model for managing processes of co-evolution towards sustainable development". *Int. J. of Sustainable Development & World Ecology*, vol. 14, no. 1, pp. 78-91, 2007.

- [32] M. L. Marks, "A framework for facilitating adaptation to organizational transition," *J. Organ. Chang. Manag.*, vol. 20, no. 5, pp. 721–739, 2007.
- [33] M. Aubry, R. Müller, B. Hobbs, and T. Blomquist, "Project management offices in transition," *Int. J. Proj. Manag.*, vol. 28, no. 8, 2010.
- [34] T. Burström and M. Jacobsson, "Transition processes in an interorganizational platform project," *Int. J. Manag. Proj. Bus.*, vol. 5, no. 3, pp. 400–419, 2012.
- [35] Lundin, R. A., & Söderholm, A. "A theory of the temporary organization". *Scandinavian Journal of Management*, 11(4), 437-455, 1995.
- [36] J. Rotmans, R. Kemp, and M. Van Asselt, "More evolution than revolution: transition management in public policy2". *Foresight*, vol. 3, no. 1, pp. 15-31, 2001.
- [37] R. Bhaskar, Enlightened Common Sense: The Philosophy of Critical Realism. Abingdon, Oxon, UK: Routledge, UK, 2016.
- [38] M. B. Miles, A. Huberman, and J. Saldana, *Qualitative Data Analysis*, 3rd ed. Thousand Oaks, CA, USA: SAGE Publications Inc, USA, 2014.
- [39] R. K. Yin, *Case Study Research: Design and Methods*, 4th ed. Thousand Oaks, CA, USA: SAGE Publications, 2009.
- [40] J. R. Turner and R. A. Cochrane, "Goals-and-methods matrix: coping with projects with ill defined goals and/or methods of achieving them," *Int. J. Proj. Manag.*, vol. 11, no. 2, pp. 93–102, 1993.
- [41] R. C. Mayer, J. H. Davis, and F. D. Schoorman, "An integrative model of organizational trust," *Acad. Manag. Rev.*, vol. 20, no. 3, pp. 709–734, 1995.
- [42] D. A. Whetten, "Modelling-as-Theorizing: A Systematic Methodology for Theory Development," in *Essential Skills for Management Research*, D. Partington, Ed. Thousand Oaks, CA, USA: SAGE Publications Inc., 2002, pp. 45–71.
- [43] R. Müller, Governance and Governmentality for Projects: Enablers, practices, and consequences.

 New York, NY, USA: Routledge, USA, 2017.

- [44] M. Alvesson and K. Sköldberg, *Reflexive methodology: New vistas for qualitative research*. SAGE Publications, London, England, 2009.
- [45] M. Saunders, P. Lewis, and A. Thornhill, *Research Methods for Business Students*. Harlow, England: Pearson Education Limited, 2009.
- [46] R. Müller and G. Klein, "What Constitutes a Contemporary Contribution to Project Management Journal?," Proj. Manag. J., vol. 49, no. 5, pp. 1–2, 2018.

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APPENDIX

The following questions were asked to VLs (and HLs) in relation to three different scenarios, i.e. when the VL a) assigned another task to the HL with no adjustments, or b) assigned another task to the HL with adjustment, or c) did not assign another task (terminated the HL assignment):

- 1. What criteria led to this decision?
- 2. What conditions played the role in the decision on the HL assignment?
- 3. Describe the HL (VL) in terms of criteria such as a) leadership style, b) competences, and c) any other characteristics (e.g. attitudes, performance etc.)
- 4. Describe yourself as VL (HL) using the same criteria.
- 5. Describe your relationship with the HL (VL) in this scenario.