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# The identification of temporary horizontal leaders in projects: The case of China

## **Abstract**

Balanced leadership in projects describes the dynamic transition of leadership authority between the project manager and one or more team members. Within this concept, the present study investigates the context, criteria, and processes for identifying project team members as candidates for the role of horizontal leader. Five case studies, followed by validation interviews were conducted in China. Results show that structure and agency by the project manager set the context, wherein professionalism, personality and attitudinal characteristics of team members are evaluated for identification. This is executed in two parallel processes, where the project manager evaluates, develops and assesses candidates, and the team members evaluate their situation, compete with others, develop their skills, and look for guidance from the project manager. Managerial and theoretical implications are discussed.

*Keywords:* horizontal leadership, vertical leadership, identification of leaders, project team member

## **Introduction**

The concept of balanced leadership has recently entered the realm of project management research. It describes the dynamics in the transition of leadership between a project manager as vertical leader and a team member as temporary horizontal leader. The concept bridges the two so far distinct perspectives of person-centered (vertical) leadership by the project manager (e.g. Turner & Müller, 2006) and team-centered (horizontal) leadership by one or more members of the project team (e.g. Crevani, Lindgren, & Packendorff, 2010). Balanced leadership developed from the observation that projects employ both forms of leadership and that attempts to understand project leadership from one perspective only substantially compromises the chances of understanding project reality.

Both leadership types are defined as social processes which drive the project forward, whereby the vertical leader influences the team and project stakeholders, and the horizontal leader influences the project manager, the rest of the team and the stakeholders (Müller, Packendorff, & Sankaran, 2017). Through leadership, leaders center on the satisfaction of the social and esteem needs of the individual team members as well as on creating a positive relational climate within the team (Ceri-Booms, Curseu, & Oerlemans, 2017). As such leadership is distinct from management, with the latter being about responsibility to conduct and accomplish objectives (Bennis & Nanus, 1985). Furthermore, leadership of project teams in temporary organizations is characterized by short-term influences, which is different from that in permanent organization, as project team members are drawn from different functional units and temporarily work together toward a novel objective and a planned project start and end date (Savelsbergh et al., 2015; Turner, 2009).

While vertical leadership is granted to the role of the project manager through an organization's structure, horizontal leadership requires enabling. Hence, horizontal leadership is granted to a team member by the vertical leader (Cox, Pearce, & Perry, 2003). To that end, the present study

builds on and extends earlier work on leadership in project management by Rodney Turner and his colleagues (such as Turner & Müller, 2006).

Empirical research on balanced leadership in projects has thus far developed a theoretical framework that describes how balanced leadership develops through the interaction of vertical leaders (i.e. project managers) and team members (i.e. potential horizontal leaders). It consists of a cycle of five events. An event is hereby defined in the sense of Whitehead (2010, p73) as “a nexus of actual occasions, interrelated in some determinate fashions” in the actual world. These events are a) nomination of project team members, b) identification of possible candidates for horizontal leadership, c) empowerment of the candidates, d) horizontal leadership by the team member and its governance, and e) transitioning back to vertical leader (Müller, Sankaran, et al., 2017).

Most of these events are currently under investigation by different research teams around the globe. The present study is part of this worldwide network and investigates the event for *identification of candidates* for horizontal leadership. This is the time after the nomination of team members, which constitutes the pool of potential horizontal leaders, and before the project manager selects and empowers a candidate through granting horizontal leadership authority.

The research question we address is:

*RQ: How are potential candidates for horizontal leadership in projects identified?*

The Unit of Analysis is the interaction between project manager as vertical leader and project team members as potential candidates for horizontal leadership. The study takes the ontological stance of Critical Realism, thereby aiming for explaining the phenomenon, but not claiming that this explanation is the only possible one (Bhaskar, 2016). The above mentioned balanced leadership theory framework, is based on Realist Social Theory and its morphogenetic cycle (Archer, 1995, 2004). In line with that we take a sociological perspective as theoretical lens.

Five case studies with 24 interviews were held to understand and theorize the phenomenon, followed by eight deepening and validation interviews. A total of 32 interviews allowed to identify the key variables constituting the context, the criteria, and the processes for identification.

Practitioners will benefit from this study through the insights in the project managers' evaluation criteria for potential candidates. Thus, practitioners can better prepare for being identified for subsequent selection as horizontal leader, which is often a precursor for the first appointment to a fully responsible project management role. Academics benefit from the study's results through the contribution to theory development, especially the contribution of further levels of detail to the theory on balanced leadership, which is currently under development.

The next section will briefly review related literature and provide the details of the theoretical lens. This will be followed by the methodology, analysis, and discussion sections. The paper finishes with the conclusions section, where, among others, the research question is answered.

## **Literature review and conceptual framework**

In this section, we briefly review the literature on leader identification in general and then in the context of project management. Then we describe the conceptual framework and theoretical lens underlying the study.

### *The identification of vertical leaders*

Identification of leaders, especially through the lens of their behavior, is a classic theme in research. Confucius in 500 B.C. identified four virtues of leaders, namely *jen* (love, or conduct for relationships), *li* (proper conduct, or concern for process), *xiao* (piety, or values) and *zhang rong* (the doctrine of the mean, or concern for moderation) (Collinson, Plan, & Wilkinson, 2000). Later studies showed quantitatively that emergent leadership in small groups is

identifiable by members' verbal and nonverbal cues, and that verbal cues are more important than non-verbal ones. However, group members' emergent leadership is independent of their relative participation rates (Stein, 1975). Following this notion, Holmes, Sholley and Walker (1980) showed that group members' personality allows to predict their role as leader, follower or isolate in groups. This was advanced by the stream of studies that led to the emotional intelligence school, which suggests that successful leadership is strongly dependent on the emotional personality traits of the leader. This proposition is triangulated through the convergence of the different strands of research on emotional intelligence. This includes the strand that perceive emotional intelligence as a *cognitive ability*, which allows people to accurately reason about their own and others emotions, and use this to enhance thought (e.g. Mayer, Roberts, & Barsade, 2008). Or those that see it as a *trait* - an emotion-related disposition and self-perception of a person's personality (e.g. Joseph & Newman, 2010); or those that see it as a *mix of traits*, abilities and others (e.g. Goleman, Boyatzis, & McKee, 2002; Hess & Bacigalupo, 2013; Krishnakumar et al., 2016; Rezvani et al., 2016). Hence, there is ample evidence that behavior is a reliable indicator for identifying potential leaders.

Research in project management started with the subject of leader identification around the turn of the millennium. Studies earlier than that focused mainly on managerial skills and traits (e.g. Gaddis, 1959; Hauschildt, Keim, & Medcof, 2000). These studies built mainly on the emotional intelligence school of theories, for example, by showing the importance of emotional capabilities for project leaders (Clarke, 2010b), identifying the personality profiles of successful leaders in projects (Müller & Turner, 2010), or the design of emotional intelligence training programs for leaders of projects (Turner & Lloyd-Walker, 2008). None of these studies looked at the identification of horizontal leaders. However, a few studies investigated the project manager selection criteria. This includes the criteria managers of project managers apply when they match project managers with different project types. The results showed that

most managers look for technical and project management expertise and experience (Müller et al., 2016). Leadership styles and skills appeared to be more of a decisive factor on complex projects and less on simpler projects (Turner & Müller, 2006). These studies showed that project managers possess significantly different personality profiles than line managers, thus differ in the basis of their leadership. Psychological profiles of project managers showed that they score significantly higher in the intellectual (IQ) dimension of critical analysis, and the two emotional (EQ) dimensions of sensitivity and conscientiousness, and lower in the managerial (MQ) dimensions of communication and developing others (Turner, Müller, & Dulewicz, 2009). Thus, emotional intelligence appears to be a major differentiator for leadership in projects as opposed to functional organizations.

To the best of the authors' knowledge, there is no study on the identification of temporary leaders in projects through their respective project manager. The existing theory, as discussed above, is inadequate to answer the research question. Therefore, we review briefly the main concepts of horizontal and balanced leadership as a complement to the above studies on vertical leadership.

#### *Identification of horizontal leaders*

The global developments towards more democratic ways of working, as seen, among others, in the shifting of decision making authority down the corporate hierarchy, or the emergence of social media as serious elements in business conduct, has changed the perspective of leadership in recent decades. Approaches that are more democratic position leadership authority further down the hierarchy and into the work teams as such. Most prominent is the auto maker Volvo's implementation of self-managing teams in their production plants in Sweden (Berggren, 1993). However, the expected better results through this approach were not paramount (Kumar & Kumar, 2015), and new issues appeared, such as strong reliance on low resource fluctuation

(van der Vegt, Bunderson, & Kuipers, 2010). This led to new concepts, which emerged out of these democratic settings, such as shared and distributed leadership.

Shared leadership builds on the notion that different skills are critical at different points in time, and that leadership is transferred between those with the critical skills at any given time in a project, such as in design reviews or short-term technical problem solving. Here leadership emerges from the team (Crevani, Lindgren, & Packendorff, 2007; Pearce & Conger, 2003). The moment a team member takes on a leadership role, he or she possesses a substantial authority to move the project forward. Therefore, the transfer of leadership authority is controlled (Müller, Packendorff, & Sankaran, 2017). It is enabled through empowerment by the vertical leader (or project manager in project settings), who identifies potential candidates. Little research is found on this subject. For these situations of temporary empowerment of team members to horizontal leaders, the role of vertical leader, becomes one of an enabler, but also of social architect, who knows the wider organization and is capable of identifying and finding, and mobilizing the right resources for these tasks (Cox et al., 2003).

The related concept of distributed leadership also assumes that leadership is shared across team members, but assumes that the transfer of leadership authority is not as much controlled by the vertical leader as in shared leadership (Bolden, 2011). Here leadership emerges from the social interaction of team members and other stakeholders who actively pursue a variety of different perspectives to each issue in order to chart the best way forward (Lindgren & Packendorff, 2009). The identification of leaders is a team process and not controlled by a vertical leader. Little research is done in this area in the realm of projects.

### *Balanced leadership*

Balanced leadership became popular in education research before it entered the realm of management. Originally it was defined in the context of teacher leadership as the combination

of identity and adaptability, through which people become balanced leaders (Hertneky, 2010; McCarthy, O'Connell, & Hall, 2005). The management literature related the term to the need for leaders to balance different roles, such as being innovator, coordinator, facilitator etc. (Shim, Lusch, & Goldsberry, 2002), or as a balance in the four drives of a) influence and motivation, b) expert knowledge, c) power and reward, and d) punishment (Lawrence & Pirson, 2015). The relatively new concept of balanced leadership in projects combines the concepts of shared and vertical leadership and focusses on the dynamics of their interaction. At its heart lies the notion of a socio-cognitive space (a cognitive understanding, shared by the vertical leader and the team members). The particular expression of the elements that make up this space regulate the extent leadership swings more towards vertical or horizontal (Müller et al., 2016; Müller, Vaagaasar, Nikolova, Sankaran, & Drouin, 2015). These elements are:

- Empowerment: the extent a team member is allowed by the vertical leader to take on a horizontal leadership role
- Self-management: the capability of a potential horizontal leader to manage him-or herself, in the eyes of the team and the vertical leader. Proper self-management is a requirement for gaining the trust to be able to lead others
- Shared mental models: knowing the particular skills and accessibility of each team member in order to sense when the transfer of leadership among team members needs to occur.

First empirical studies in this area indicate that selecting an individual through empowerment requires an enabling context (i.e. the vertical leader's willingness to use horizontal leadership, and a situation that requires this particular candidate as a horizontal leader), preceded by the identification of possible candidates for different leadership situations. Once a candidate is selected as horizontal leader, the shared mental models of the team are updated as to the new power balance and its possible influence on the project, and the self-management of the

empowered horizontal leader is scrutinized by the team and vertical manager as well as emphasized by the horizontal leader (Müller et al., 2016; Müller, Vaagaasar, Nikolova, Sankaran, & Drouin, 2015). The present study focusses on the identification of potential horizontal leaders, that is, the step before they are selected through empowerment.

### *The theoretical framework for this study*

This study is embedded in the *Theory Framework for Balanced Leadership*, which is an empirically developed cyclical model of the interaction between vertical and horizontal leadership (Müller, Sankaran, et al., 2017). The cycle consists of five events, of which the subject of this paper – *identification of horizontal leaders* – is one.

The theory framework builds on the sociological Realist Social Theory, which describes how structure and agency mutually shape each other through their interaction. This shaping occurs in a cycle of *conditioning* and *interaction* of an agent (i.e. a horizontal leader) with the structural and human context, and how this interaction leads to *elaboration* of the existing structure and their potential change as starting condition for the next cycle of interaction (Archer, 2000).

Müller et al (2017) took this approach into the realm of balanced leadership in projects. Through a global study with 166 interviews they refined and deepened the described cycle. They identified five events, which correlate with the three events of the Realist Social Theory:

1. *Nomination*: the appointment of resources to the project team. This team constitutes the pool of potential horizontal leaders for the project. If possible, the project manager wants to have a saying in the appointment of candidates in order to nominate those resources that fit to the anticipated situations requiring horizontal leadership.
2. *Identification of possible horizontal leaders*: this constitutes the identification of possible candidates for horizontal leadership. It is a two-way activity from both project manager and

team members to identify the best possible fit between a situation requiring horizontal leadership and a person executing it. This is the subject of the present paper.

3. *Selection of horizontal leaders*: This is when horizontal leaders are formally selected through empowerment by the vertical leader, thus when the project manager empowers one or several team members to become horizontal leaders.
4. *Horizontal leadership and its governance*: At this event, the team member(s) executes the leadership task, governed by the project manager.
5. *Transition*: At this event, the horizontal leadership comes to an end and the conditions for future repetitions are elaborated.

Realist Social Theory (Archer, 1995, 2000, 2004) associates events 1 to 3 with Conditioning, event 4 with Interaction, and event 5 with Elaboration. Here *conditioning* refers to the structural and human influences and expectations that impact an agent (such as a horizontal leader) in the execution of his or her task. The execution of this task is denoted as *interaction* of the agent with the conditioning influences. Finally, *elaboration* refers to changes resulting from the interaction, which are typically expressed as either a need for change or a reinforcement of the existing conditions that marked the beginning of the current cycle. The consequence of the elaboration constitutes the conditions for the next round of the cycle (i.e. when the next horizontal leader is identified and empowered). Figure 1 shows the relationship between the morphogenetic cycle (Archer 2000, 2004) and the events in the theory framework for this study (Müller, Sankaran et al 2017). The present paper addresses the second event in this framework (identification), which corresponds to the conditioning event in the morphogenetic cycle. In this section, we have outlined the gap in the literature in terms of theory about the identification of potential horizontal leaders in projects, and then contextualized the study as being part of the theory framework of a larger research program on balanced leadership.

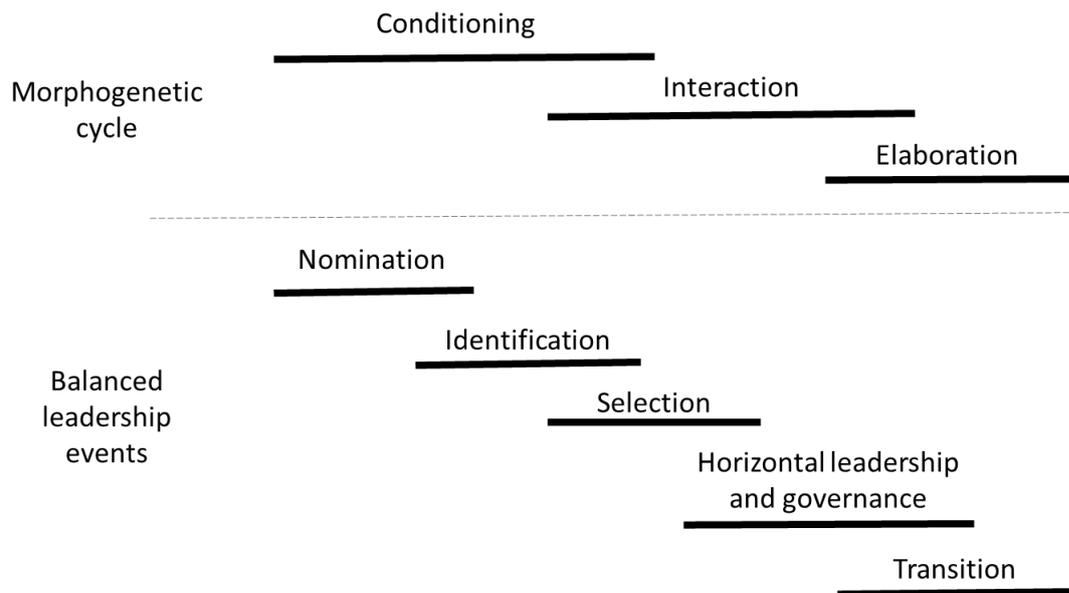


Figure 1: The relationship of the morphogenetic cycle with the events in the study’s theoretical framework (after Müller, Sankaran, et al., 2017)

## Methodology

In following the research design process from Saunders, Lewis and Thornhill (2007), we started with the determination of the ontological stance for the study. Critical Realism was chosen for several reasons, including the fact that the underlying theory and the theory framework are also developed from his perspective, the congruency with the researchers own ontology, and Critical Realism’s particular good fit for case study research, as shown by, for example, by Easton (2010) and Vincent and Wapshott (2014). In Critical realism, the researchers agree on the existence of a particular experienced phenomenon (such as balanced leadership) and then seek to explain this phenomenon, well knowing that there are several possible explanations of the same experience/phenomenon. For that Critical Realism distinguishes between three ontological domains: i) *the empirical*, which constitutes the experiences of humans, ii) *the actual*, which constitutes of the experiences and their underlying events that allow them to happen, and iii) *the real*, which includes the experience and events, plus the underlying mechanisms that are based on generalizable laws, often expressed in existing theory (Bhaskar,

2016). In our case study research, we conducted interviews to identify people's experiences and related situations, and then used empirical data, existing theory, and the researchers' own experiences for an abductive interpretation of the data. Doing this we followed suggestions by Alvesson and Sköldbberg (2009) in general, and Vincent and Wapshot (2014), and Smith and Elger (2014) in particular for Critical Realism studies.

A multiple case design was chosen as research strategy in order to identify this relatively new phenomenon in its real life context. Replication logic in the sense of Yin (2009) was used to identify patterns. The sampling was done in China, to avoid effects through cultural differences, but aimed for maximum variation in the given culture, in order to understand the breadth of the phenomenon over several industries. Maximum variation sampling was used because it "documents diverse variations and identifies important common patterns" (Miles & Huberman, 1994, p.28) in the ways horizontal leaders are identified. Hence, cases qualified for sampling through their variety in size, industry and geographical scope of operations. This allowed to identify the most substantial (i.e. industry and size independent) patterns in identification approaches. For that, we conducted 27 interviews in five case studies, and a further five interviews in other companies to validate and deepen the understanding of the findings, covering a wide range of project scale, team members' age span, and working experience. The Appendix shows demographics of the cases. Of the 32 interviews 20 were with project managers and 12 with team members. Interviewees were chosen on the basis of best informant, thus all has tenure between 1 and 3 years in their particular role. All organizations are projectified in the sense of Midler (1995) by being project-based and having a culture of "thinking in projects". Industries covered include large scale engineering and construction, pharmaceutical development and production, business services outsourcing, and architecture consulting. Results validation was done in organizations in sectors like petroleum engineering, marine engineering, construction, and nuclear power.

Interviews were based on informed consent and lasted between 30 and 90 minutes. Three blocks of questions were asked: a) general information about the interviewee and his or her role and tenure, b) examples for real cases of balanced leadership and their detailed explanation, and c) the possible enablers for balanced leadership. All interviews were based on a case-study protocol (in the sense of Yin, 2009), which was developed at the beginning of the study and included information about the research questions, sampling, interviewee roles, the interview questions, and templates for invitation letters for the organizations and interviewees. The interview questions and the protocol were piloted in fifteen interviews with no subsequent changes to the interview questions.

Interviews were conducted by teams of two or more researchers, where one took notes and the other led the discussion. All interviews were recorded and subsequently transcribed for better reference during the analysis. Follow-up interviews were done in cases where more depth could be expected from further interviews and for clarification and validation of results.

Analysis was done using Miles, Huberman and Saldana's (2014) process of initial coding, followed by a second-cycle coding for pattern identification. Thus, we followed the popular iterative cycle of data collection, data display, data reduction and conclusion finding. This was carried out by starting with within-case analysis of each case, in order to capture all expressions of the phenomenon. This was then expanded to cross-case analysis to validate the findings from before and derive at patterns that show the general characteristics of the phenomenon.

Following Miles, Huberman and Saldana (2014), the first order constructs were inductively developed by selecting, simplifying and abstracting them from the interview data (i.e. data reduction) and subsequently listing them in tables (data display). Here the interviewees' data were interpreted in light of the research question to identify the variety of identification approaches. Subsequent constant comparison of the identified approaches was used to identify reoccurring patterns, which led to the first order constructs, such as project scale, culture and

policies and role vacancy as context patterns. The subsequent categorization was informed by Realist Social Theory, which, for example, led to categorization into structure and agency by distinguishing between human and non-human factors.

Validity and reliability were ensured following Yin's (2009) suggestions. This included the use of multiple sources of evidence, key informants, and validation interviews for construct validity, pattern matching during data analysis for internal validity, replication logic in a multiple case design for external validity, as well as the use of a case study protocol for ensuring reliability of the interview data.

Theory building followed Fisher and Aguinis' (2017, p4) approach for Theory Elaboration, where

*Theory elaboration is the process of conceptualizing and executing empirical research using preexisting conceptual ideas or a preliminary model as a basis for developing new theoretical insights by contrasting, specifying, or structuring theoretical constructs and relations to account for and explain empirical observations.*

Fisher and Aguinis' (2017) criteria for using this approach were met by a) the existence of some level of theory (as outlined in the literature review above), b) the explanation provided by the existing theory being ambiguous or inadequate, and c) the potential to collect data to integrate with existing theory to develop, enhance, or extend existing theory.

Fisher and Aguinis (2017) claim that theory elaboration consists of seven different and independent approaches to build new theory by extending existing theory. We used two of them:

- *Construct Specification* – “a theory elaboration approach in which a theoretical construct is specified or refined to more accurately reflect the realities and insights that

emerge empirically” (p.9). This was applied to specify new constructs for identification context and criteria.

- *Structuring*, which examines the sequence of effects, often by organizing “data using existing theoretical constructs to gain new theoretical insights” (p.12). This approach was used to identify the project managers and team members’ actions and their sequence relations in the process of identifying horizontal leaders.

Hence, theory building followed an abductive approach that integrated the deductive insights from existing concepts, theories and validation interviews with the inductive insights from the data collected in the case-study interviews.

### Data analysis and results

Analysis of the interview data revealed the particularities of the enabling context for horizontal leadership, the criteria used by project managers to identify potential horizontal leaders, and the processes that both project manager and team members follow to interact during identification.

Results are shown in Figure 2, with the patterns found in the data being shown as 1<sup>st</sup> order constructs, which were then grouped into 2<sup>nd</sup> order constructs for model building.

<b>Context</b>	2 <sup>nd</sup> order	<b>Structure</b>		<b>Agency</b>	
	1 <sup>st</sup> order	Project scale, culture & policies, role vacancy		Project manager’s style and role understanding in leading human resources	
<b>Criteria</b>	2 <sup>nd</sup> order	<b>Professionalism</b>		<b>Personality</b>	
	1 <sup>st</sup> order	Professional skills	Emotional and social skills	<b>Attitude</b>	
		Teamwork skills	Leadership traits	Intention to be promoted	
		Experience	Person-situation fit	Job attitude	
<b>Process</b>	Level	<b>Project manager</b>		<b>Team member</b>	
	Steps	Preliminary evaluation		Preliminary evaluation	
		Development		Competition	
		Assessment		Development	
				Guidance and encouragement	

Figure 2: Context, criteria and processes for identification of horizontal leaders

### *The enabling context for horizontal leadership*

Two main concepts were found to be critical for enabling the identification of horizontal leaders, namely structure and agency.

Structure refers hereby to the three first order patterns of project scale, policies & culture, and role vacancy. Project scale refers to the size and complexity of the project. The larger the project manager's workload, due to project size and complexity, the higher the chances of team members for delegation of some of this work. As the project manager in case 1 stated: *Large and parallel projects provide them [team members] the opportunity of multi-tasking and greater authority. Managing two large projects at the same time is quite challenging. Thus, they become sort of a sub-project manager.*

Culture and policies represent in this context the organization's value system and the regulations for employee development respectively. Cultures and policies that foster employee development are supportive for horizontal leadership. Project managers in organizations with clear rules and regulations on how to develop their people, and a related supportive culture, are more likely to identify and later employ horizontal leaders from the team. The project manager in a petroleum engineering and construction company summarized it as: *We have a system called mentoring. Each mentor will get a bonus of 200 yuan per month. Each year we will select two excellent mentors and grant them rewards. We encourage the mentor to guide his apprentice in this way.* However, even in cases with no such rules or regulations, the interviewees could still tell the 'subtle rules' or norms indicating a supportive or non-supportive culture for identifying horizontal leaders.

The third element of the structure construct is role vacancy, which refers to the availability of a role that may qualifies for horizontal leadership. The project manager in a marine engineering company said: *Because he [a team member] has left the project, we need a person to take over.*

*Usually, our project could not employ too many people from outside. Therefore, due to some other reasons, we decided to find someone in our team to fill this position.* In the absence of role-redundancy in projects, filling a particular role may become supportive of being identified as a horizontal leader.

Agency is the second main concept that defines the enabling context. It denotes the vertical leader's action as an agent for the execution of the project, thus refers to the project manager's style and role understanding in leading human resources. Project managers who are encouraging and approachable appear to be more supportive of horizontal leadership. The project manager of the petroleum engineering and construction company gave the example of managers who promoted their team members, but also a case where the manager *doesn't care too much about the development of team members. He won't criticize you or praise you in front of the senior manager. He never promotes anyone.* This turns the understanding of the leadership role by the project manager into a key variable for an enabling context. This leadership resembles the *laissez-faire* style, a hands-off style, where leaders hardly take on responsibility, avoid feedback, and "make little efforts to help followers satisfy their needs" (Northouse, 2007, p186).

The concepts of structure and agency, together with their underlying first order constructs fit very well with the underlying Realist Social Theory. This is further elaborated in the Discussion section.

#### *The criteria for identifying horizontal leaders*

Three categories of criteria emerged from the analysis. These are professionalism, personality, and attitude.

Professionalism refers to the candidates' professional skills, teamwork skills, and age. Here higher professional and teamwork skills are almost universally described as leading to higher

chances for being identified as potential horizontal leader. Minimum thresholds of professional skills must be met in order to develop trust in the capabilities of a candidate. In most cases, project managers distinguish candidates' professionalism based on their past performance. Once trust has been created, the ability to apply the expertise within the project team is a critical factor. The role of age was described in an unexpected way. While higher age would be associated with more experience and therefore better occupational skills, some of the project managers prefer younger over older team members as horizontal leader. This stems from a perceived rivalry that an older horizontal leader may become a project manager him/herself. The project manager of the engineering construction company summarized it as: *I never choose a person who is about the same age as me, because he or she also wants to become a project manager, and will not follow me next time. I generally choose a person who is more than 10 years younger than me.* This unexpected perception may be traced back to the particularities of the Chinese culture and its emphasis on avoiding face-loss and forming differentiated relationship with potential candidates, which would occur if the horizontal leader aspires to take over as project manager. This is further elaborated in the discussion section.

Personality, the second set of criteria consists of emotional and social skills, as well as leadership traits and the person-situation fit. Emotional skills refer to the capabilities of a team member to recognize the own emotions correctly and then manage the own behavior accordingly, whereas the social skills refer to the reading of others' emotions and interact positively and work effectively with others in order to form desirable relationships with them (as described by Goleman et al. (2002)). High scores in both skills were frequently named as criteria for identification. This includes communication skills, as a construction project manager said: *EI [emotional intelligence] should be very high. Strong communication skills and knowing how to communicate effectively.* This is verified by most project managers, some

of them put EI as the top priority, and some assert that EI is far more important than IQ when they identify potential horizontal leaders.

Leadership traits, the personal characteristics that reflect a potential to being a future horizontal leader, are further criteria for identification. In the context of the interviews it referred to candidates' identity construction and positioning relative to other candidates for horizontal leadership. The better the perceived fit between a situational need and the leadership traits of the candidate, the higher the likelihood for identification. A project manager from case 5 summarized it as: *Dare to think. Dare to do. Leaders should be able to establish their prestige.* This includes the candidate's showing of his or her willingness to lead to the project manager.

Person-situation fit is a criteria emerging from the particularities of matching personal characteristics with the requirements of a leadership situation. Better perceived fit increases the chances of being identified. A project manager in case 1 remembered: *I assign different tasks to different team members according to their personality traits. In a large project, I once selected two deputy managers, [AAA] and [BBB]. [AAA] is older and has many years of working experience. He has built a good relationship with departments such as the quality inspection station. So he is assigned to handle tasks related to the quality inspection station and others in a project. [BBB] is younger and very ambitious. His communication skills are better; he is good at communication with owners outside working time. He is responsible for communicating with the owners. This distribution is based on the personality characteristics of each person. Therefore, the project manager should evaluate people correctly and put the right people in the right position.*

Attitudes form the third set of criteria – attitudes - include the candidates' intention to be promoted and their attitude to work. The former refers to a person's willingness and clear interest for being promoted. The latter refers to a serious attitude to work. Both were frequently mentioned criteria during identification of candidates. As a project manager from the harbor

engineering company reflected: *Team members' willingness is very important. Don't force a person to the position he doesn't want to go. In the end, he will be very tired, and you [project manager] are not satisfied.* This implies that the project manager must somehow read the mind of the candidates. In the theory framework of this study, Müller, Sankaran, et al (2017), use the allegory of a generative dance to describe this process. This is further elaborated in the next section.

### *The processes for identification*

From the interviews, it can be concluded that two separate processes take place during identification. One is on the side of the project manager and the other on the side of the team members. The ultimate aim of both is to converge, provided the identification criteria are fulfilled and the context is supportive.

Project managers describe three steps that are executed on their side:

1. *Preliminary evaluation*: here the project manager examines all or some pre-identified members of the team and excludes those who are deemed unqualified. The remaining pool provides a general view of possible horizontal leaders, their strengths and weaknesses. Then the project manager picks and chooses the potential candidates for the next step.
2. *Development*: at this step the project manager actively develops candidates in those areas deemed important for the horizontal leader role. This takes place through training or additional tasks that help the candidate to develop necessary skills or give them opportunities to show their skills.
3. *Assessment*: an examination and evaluation of the candidate by the project manager to judge on the candidate's qualification as a horizontal leader.

The project manager of the petroleum engineering and construction company expressed it like this: *I was sitting in the big office with everybody [...] I found a document control engineer called [...] who is keen to learn. One day I talked with her, and said that I think it may be a waste of her graduate degree to do the work of a document controller. I asked her about her interest in developing into a planning engineer. She felt happy and said she already had this idea in her mind.* Then he describes a series of development tasks, including co-working with planners, software training, and practicing opportunities, before he concludes: *Now I think she has done well, but there is still a certain skill gap. I am going to continue to send her out to study and acquire some certificates. Next year, she will begin to undertake the project independently.* Moreover, most of the project managers apply an attitude of “giving more work” as their primary approach to develop candidates.

Project team members describe a four step process:

1. *Preliminary evaluation*: similar to the project manager’s evaluation, do team members evaluate the project manager and anticipate the collaboration in terms of possible situations and opportunities for horizontal leadership. This influences their attitudes and motivation towards identification as a potential horizontal leader.
2. *Competition*: develops between those team members who are motivated and willing to take on horizontal leadership roles. Goal is to outperform others in order to win the visibility and trust of the project manager for the next steps.
3. *Development*: this is the stage of personal development, done in interaction with the project manager, as described above
4. *Guidance and encouragement*: the project manager is looked at by the team members in their first pilot tasks in horizontal leadership for guidance and encouragement. This strongly influences their motivation to develop and continue in a horizontal leadership role.

As a team member in the same petroleum engineering and construction company described it: *At first, he regards me as a reliable person [...] When I encounter some difficulties, I will always ask the project leader for instructions. I can say that our leader is very nice and patient. He constantly guides me, encourages me and seldom criticizes me. He never misses any improvement that I make, and praises me a lot. Therefore, I am encouraged to achieve more. [...] Usually, the project leader will not assign you an important task first, but will let you do some basic work instead. Depending on your meeting his expectations or not, he will evaluate your performance and then decide to give you additional tasks or not. Many of the tasks he assigns to you are for testing your ability. My leader is known for his fairness. He will offer you opportunities and evaluate your performance regarding your workload and overall performance. You can tell the result based on his attitude towards you.*

## **Discussion**

The study revealed the context, criteria, and processes for identification of possible horizontal leaders. Empirical evidence for a supportive context was hereby organized in structure and agency, which is supported by a large body of literature in organization theory and philosophy, as well as through the underlying theoretical lens. Structure and agency are generally seen as the two elements that constitute social behavior of humans and are irreducible to each other, thus, shall not be investigated in isolation (Archer, 2004). In the present study, structure refers to the contextual influences on project managers' identification of candidates for horizontal leadership, which is supported through project size and complexity, through supportive cultures and general availability of a related role. Agency refers to the action of the project manager as vertical leader during the identification of possible candidates. Here project managers with less task-oriented leadership styles and more supportive attitudes towards developing candidates foster a context that is more supportive for enabling horizontal leadership. Both structural as well as agency findings are supported by Seers, Keller and

Wilkerson (2003), and their framework of facilitators for shared leadership. Particular for the Chinese culture is that the context for identifying horizontal leadership is rather implicit and ambiguous. The supportive culture or supportive attitudes of the project managers are not formalized into rules or regulations, but are sensible by those involved.

Criteria for the identification of candidates fall in the categories of professionalism, personality, and attitude. The former refers to occupational, as well as to teamwork skills, which relates to the world of projects through their heavy reliance on accomplishments through teams. This is supported by Konstantinou (2015) who outlines the changes of the project management profession over the recent decades and the associated changing requirements for project managers, with an increasing emphasis on team and social capabilities, paired with a steady requirement for technical skills. The unexpected finding of a preference for an age-gap between vertical and horizontal leaders revealed the influences of national culture dimensions, such as avoidance of face-loss, power distance, and uncertainty avoidance. This can be expected to be of a lesser concern in Western cultures (House et al., 2004).

Personality of candidates is mainly evaluated along the lines of the need for a fit between their emotional and social intelligence and leadership traits with the situation at hand, which are recognized as the primary criteria for horizontal leadership in the Chinese context. These findings are supported by the studies that show the importance of emotional intelligence for good project results (Clarke, 2010a; Turner & Müller, 2006). Both professionalism and personality criteria are also found by Pinto, Patanakul and Pinto (2017) in their study on criteria for hiring project managers. Interestingly, their study showed that among five main criteria, technical competence only ranks fourth, after trust, administrative competence, likeability, and before low self-interest of the candidate. Even though the study analyses hiring decisions for vertical managers, it is indicative of the growing need for soft competences for horizontal leaders as well.

Attitude, in form of intention to be promoted and job attitude, denotes the third category of identification criteria. While not directly suitable to comparison with the large body of literature on team members and managers' attitudes, due to balanced leadership context and project settings, it is indicated as being supported by some studies in the realm of project management. This includes Turner & Müller's (2006) profiling of project managers, which showed that successful project managers score very high on conscientiousness, which resembles the seriousness in job attitude, as well as Müller and Turner (2010), who showed that attitudes of project managers are a stronger predictor of project success than their emotional intelligence.

Two processes were identified that allow for interaction between project manager and team members during identification. Project managers start by screening candidates they deem sufficiently qualified for horizontal leadership, and then start developing them along the lines of the needs in horizontal leadership. This development often takes place in form of assigning candidates additional tasks, and then assess their performance. This informs their decision on potential selection of a candidate.

Team members go through a four-step process, which also starts with a preliminary evaluation of their interest in becoming a horizontal leader, when positive, they get into a competition with other team members to identify their best suitable role and indicate their willingness to the project manager. Once agreed with the project manager they go through development for their particular role and look for encouragement and guidance when they do their first pilot task as horizontal leader.

The above phenomena of two parallel processes is described in the literature from several perspectives. Management literature describes it as a Generative Dance (Cook & Brown, 1999), which allows for the synchronization of the different epistemologies of actors. They describe how the choreographer works with a dance group through teaching and demonstration, and

how their minds, skills, and competences flow together into what is doable during the dance, hence a generative dance. In a similar way, the vertical and horizontal leaders synchronize in projects, using the above process to arrive at a stage of shared understanding and interpretation, hence a synchronization of their epistemologies.

The leadership literature explains parts of the findings through the leader-member exchange theory (LMX), which describes the leader – follower relationship as a series of dyadic relationship and a process of interactions. In these relationships team members are either categorized by the leader as either *in-group*, that is, those members expanding and negotiating their role responsibilities; or as *out-group*, that is, those team members working strongly within the limits of their employment contracts or defined roles (Northouse, 2007). Membership in one or the other group is based on the subordinate's personality and their involvement in expanding their role responsibilities with the leader. This perception has implications for the relationship, because leaders apply a *Supervision* style to out-group members in terms of fulfilling their formal contract or role obligations. In contrast in-group members receive *Leadership*, in form of an interpersonal exchange relationship which provides for wider scope than formal roles and contracts and offers the team member “*job latitude, influence in decision making, open and honest communication, support of member's actions, and confidence in and consideration for the member, among others*” (Dansereau, Graen & Haga, 1975, p50). Later LMX became central to the relationship-based domain of leadership theories, parallel to the leader-based, and follower-based domains, and the focus of LMX shifted toward the ways leaders work with followers, and the performance increase of followers when they accepted leaders' invitation to develop high-quality LMX relationships (Graen & Uhl-Bien, 1995). Recent meta-analyses underpinned the importance of LMX as a theory, such as Martin et al's (2016) study, which confirmed a moderate to strong impact of LMX on various indices of performance, together with a moderate positive effect size. Or the meta-analysis by Gottfredson

and Aguinis (2016) who used 35 meta-analyses involving 3327 primary-level studies and 930349 observations, and identified LMX as the superior theory to explain the linkage between leaders' behavior and their followers' performance. In the present study, LMX explains the process of identification as one of an invitation by the vertical leader to build high quality LMX relationships. This invitation is based on the behavior and visibility of candidates for horizontal leadership, who show their interest to engage over and above the formal role they are assigned to.

### *Cultural specifics*

Among the studies that focus on national cultures and their specific expression in organizations is the work by Hofstede, Hofstede and Minkov (2010). They identify Chinese organizations as collectivistic, that is, people “*are integrated into strong, cohesive in-groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty* (p92). At the same time, corporate China shows high power distance, which indicates that unequal distribution of power is typically accepted in organizations (as well as in society). To that end, culture works as an enabler and supporter of the LMX related findings, such as categorization into in-groups and out-groups as given by the collectivistic attitude of the vertical leader, and the acceptance of it by team members due to high power distance. China's high score on the short term-orientation, measured as, *people's reciprocation of a) greetings, favors, and gifts, b) respect for tradition, c) protecting one's "face", and d) personal steadiness and stability* (p237) explains the cultural impact on the age-difference phenomena. The vertical leader avoids losing face by appointing someone of equal seniority who may challenges his or her way of managing the project. Age might be one of key criteria for vertical leaders to decide on candidates' belonging to the in or the out-group and younger candidates, who possibly develop into project managers' themselves, are more likely regarded as being in-group and important for future projects. This is partly explained through the concept of “*guanxi*”, the particular

handling of social networks in China, which describes the important role of personal relations, centered around the individual, who maintains strong ties with the closest network members and a decreasing strength with those further away from the center. This is also known as differential mode of association (Fei, Hamilton, & Wang, 1992). It explains the laissez-faire style of the vertical leader described above, because he or she has placed the candidate in the out-group and wants to avoid internal friction among employees. The face-loss and *guanxi*-driven culture resonates with emotions of caring and shame by Nie and Lämsä (2015). This drives project managers to promote team member as a way of investment, and looking forward to get payback from team members afterwards.

These behaviors resonate with the high-context language used in China, where communication is not as explicit as in Western cultures. Individuals know each other for longer periods and therefore share a common cognitive context, which substitutes the need for explicit and coded information (Hall, 1976). This turns leadership into a more implicit task, governed by shared understandings and subtle moves in behavior and relationships.

## **Conclusion**

This is the first paper to investigate the identification of temporary horizontal leaders in the context of balanced leadership in projects. It builds on the theory framework for balanced leadership by Müller et al (2017) and focuses on the second event of their five event cycle of nomination, identification, selection, horizontal leadership & governance, and transition.

The present investigation uses five case studies in China with 32 interviews to answer the question how horizontal leaders are identified in projects. The results are summarized in Figure 2 and show the need of an enabling context with structures and agency being conducive to the notion of balanced leadership. Here the former refers to project scales, organizational cultures, policies and job vacancies that support the need to appoint horizontal leaders. The latter refers

to project manager’s attitude toward leading human resources being in support of delegating leadership to team members when the need arises.

Within this context two parallel processes unfold, which are linked by the criteria for identifying horizontal leaders. The processes on the side of both vertical and possible horizontal leaders both start with a preliminary evaluation of the situation and its attractiveness for horizontal leadership. A positive outcome of the evaluation on the side of the team members leads to competition for a possible future horizontal leader role. While this competition prevails, the vertical leader keeps on evaluating possible candidates. Those candidates that are potentially identified are then developed, which is done jointly by both roles in order to ensure the correct development and the development needs. When the development comes to an end the vertical leader assesses the candidate and his or her development towards the criteria and development goals in order to come to a decision on the identification of a possible candidate. Developed candidates look for guidance and encouragement from the vertical leader in order to take on their role when needed (Figure 3).

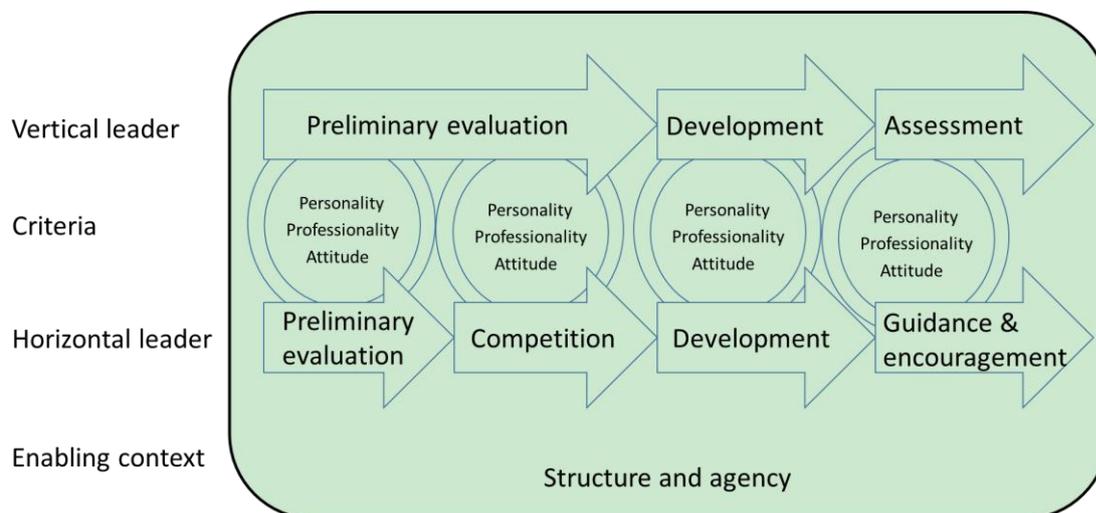


Figure 3: The processes and criteria for identification of horizontal leaders

Throughout the time of the process, the vertical leader assesses the candidates against the criteria of personality, professionalism and attitude, while the candidates express themselves in

regard of these criteria to enhance their chances for selection, or withdraw, in case they are no longer interested in becoming horizontal leaders.

The details of the context, processes and criteria are described in the analysis section.

Theoretical implications of the study include the contribution to the theory framework for balanced leadership, which is now enriched by a detailed understanding of the identification event. The results of the present study bridge from the nomination event to the selection event by outlining the process, criteria and contextual variables for identification, a precursor for empowerment of an identified horizontal leader. This marks a significant expansion of the framework. Moreover, the results contribute to the long standing need for more process theories that provide sequences of events to give enriched and more valid perspectives of reality (Langley, 1999). To that end, the study has developed a process theory that describes the interaction of vertical leaders with potential candidates for horizontal leadership. This is in support of Cook and Brown (1999) who described this form of epistemological synchronization as a Generative Dance, where leaders and performers interact in a process to develop a joint understanding of what is possible together, which may include interactions that lead to stepping onto each other's toes up until a decision can be made whether to continue or abandon the joint work. This is the essence of *identification* as described in this paper. Fisher and Aguinis (2017, p11) recommend theory elaboration as a "useful way to examine such interactions over time and their effects on key outcome variables". This approach was used in the present study and the results suggest appropriateness of this approach and its further use in related studies in the future.

Managerial implications include awareness building among practitioners on possible approaches to identify horizontal leaders. As such, the findings should be made part of training programs in project leadership and management to develop team members' capabilities of

making themselves visible to vertical leaders and by becoming horizontal leader, paving the way for a future career as project manager.

Future research should qualitatively investigate other nations, sectors, and project types to the next level of detail in the concepts identified herein, as well as the relationships between these concepts. This will allow for model building, with subsequent global, quantitative tests and validations.

The strength of the study is in the robustness of the underlying theoretical lens, which was strongly supported by the empirical findings. The focus on one country avoided spillover effects stemming from cultural differences, while it is at the same time one of the study's weaknesses, as it does not allow to generalize the findings beyond the context of China. More research is indicated to elaborate the fundamental cultural differences.

The study's contribution to knowledge lies in the deepening of the understanding how potential horizontal leaders are identified during balanced leadership in projects. Better understanding, more insights, and a future formalization of this event in balanced leadership can possibly contribute largely to better project results.

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### **Conflict of interest**

There is no potential conflict of interest with respect to the research, authorship, and/or publication of this article

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## Appendix:

	<i>Case 1</i>	<i>Case 2</i>	<i>Case 3</i>	<i>Case 4</i>	<i>Case 5</i>	Validation 1	Validation 2	Validation 3	Validation 4
Industry	Design and research for coking, refractory and municipal projects	Business process outsourcing provider for accounting and other processes	Large pharmaceutical manufacturer	Construction and urban design consulting	State-owned large construction and installation enterprise	Engineering and construction in the Oil & Gas industry	Harbor engineering	Nuclear power plant construction and operations	International economic and technical consulting group
Employees	4,000	1,350	30,000	400	6,000	383	11,903	1,600	2,000
Scope of operations	International	Global	Mainly national	National	National	International	National	National	Global
Number of interviews	8	5	7	4	4	2	1	1	1
Project managers	5	2	4	3	3	1	1	0	1
Team members	3	3	3	1	1	1	0	1	0