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## Considering strengths use in organizations as a multilevel construct

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## 1. Introduction

Given the increasing diversity of the workforce (Lawler, 2011) and the growing number of workers that suffer from work-related stress (Kirsten, 2010), organizations and HRM professionals need to develop new strategies to optimally apply the strengths of a diverse workforce and to ensure the well-being of their employees. Individual strengths can be defined as the characteristics that allow a person to perform well or at their personal best (Wood, Linley, Maltby, Kashdan, & Hurling, 2011). Based on positive psychology theories, previous studies have indicated that strengths use is associated with higher levels of work engagement, well-being and personal growth (Botha & Mostert, 2014; Forest et al., 2012; Harzer & Ruch, 2012; Harzer & Ruch, 2013; van Woerkom & Meyers, 2019), and with higher levels of job performance (Dubreuil, Forest, & Courcy, 2014; Stander, Mostert, & De Beer, 2014; van Woerkom et al., 2016). Moreover, research has provided evidence for a negative relationship between strengths use and company-registered sickness absenteeism (van Woerkom, Bakker, & Nishii, 2016). So far, the focus of theories and research on positive psychological capacities in general and strengths use in particular has largely been on the individual level. However, in many organizations, teams or groups –instead of individuals– are responsible for key performance outcomes (Wilson, Goodman, & Cronin, 2007). This means that few people exercise their strengths in isolation, and it suggests that the team context has an important influence on whether individuals' strengths will be noticed and appreciated by others and, ultimately, whether these strengths will be used (Biswas-Diener, Kashdan, & Minhas, 2011; Quinlan, Swain, & Vella-Brodrick, 2011).

In this theoretical paper, we propose that in order to gain a better understanding of strengths use in organizations, we need to start investigating how teams make use of the strengths of their individual members by incorporating the social embeddedness that both enables and constrains the use of individual strengths. Drawing on Transactive Memory System (TMS) theory (Lewis, 2003; Wegner, 1987), we propose that collective strengths use may improve team performance through (a) the collective awareness of the variety of individual strengths that are represented in the team (strengths awareness), (b) reliance on and trust in those strengths in the execution of tasks (credibility), and (c) the coordination of tasks and the allocation of team roles based on these strengths (coordination). Furthermore, we draw on literature on emergence (Kozlowski, Chao, Grand, Braun, & Kuljanin, 2013; Kozlowski & Klein, 2000) to reason that collective strengths use is rooted in individual-level strengths use, and manifests as a team-level construct spurred by dynamic interaction processes between team members. We introduce strengths diversity and strengths-based climate as context factors that moderate the emergence of collective strengths use at the team level. Finally, we theorize on the mechanisms through which collective strengths use may lead to its proposed outcomes. A visual representation of the proposed model is given in Fig. 1. For reasons of simplicity we choose not to develop hypotheses regarding all possible relationships in this model, but to focus only on the relationships that we see as most central to this paper.

We contribute to HRM theories by bringing in the positive psychology focus on positive human functioning and flourishing on multiple levels. In the HRM field, the implicit assumption is often that the greatest performance improvements can be achieved by managing dysfunctions in the workplace and fixing employee weaknesses (Luthans, 2002; van Woerkom & Meyers, 2015). Positive psychology challenges this assumption by arguing that people can only display excellent performance when they are in a position to

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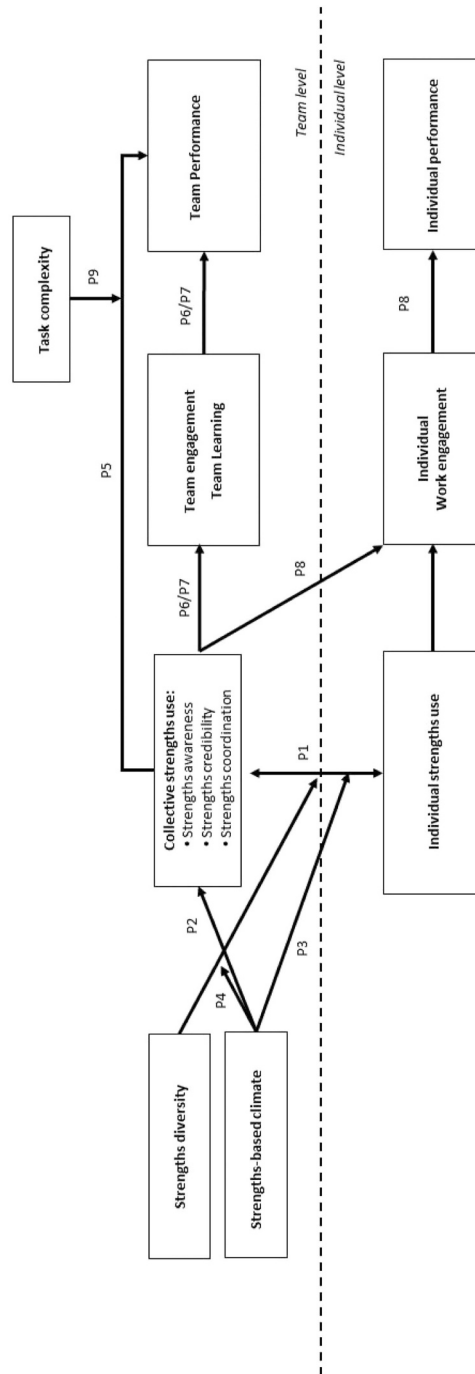


Fig. 1. Antecedents and outcomes of collective strengths use.

leverage their strengths (Buckingham & Clifton, 2001). Moreover, in trying to understand workers from a positive psychological perspective, it becomes pertinent to consider individuals' experiences within the proximal contexts that teams provide (West, Patera, & Carsten, 2009). However, the potential of positive characteristics such as individual strengths in a team context have yet to be examined. Because strengths use is associated with feelings of authenticity, vigor, and excitement (Peterson & Seligman, 2004), it includes a motivational component that may also manifest itself at the team level (e.g., by bringing about team engagement).

## 2. Strengths and individual strengths use in organizations

Positive psychology refers to the “*science of positive subjective experience, positive individual traits, and positive institutions*” (Seligman & Csikszentmihalyi, 2000, p. 5). To study positive individual traits, Peterson and Seligman (2004) developed a classification of 24 character strengths, which are trait-like features of a person that are valued in their own right (e.g., creativity, humor, self-regulation). In this conceptualization, individuals do not necessarily need to score high on all of these character strengths, and they may even have a deficit in some of them. In general, adults will possess between three and seven ‘signature strengths’, referring to personality traits that a person “owns, celebrates and frequently exercises” (Peterson & Seligman, 2004, p. 18). The authors hypothesized that the use of signature strengths in particular would lead to beneficial outcomes. This notion of signature strengths is in line with later conceptualizations of individual strengths that refer more generally to “characteristics that allow a person to perform well or at their personal best” (Wood et al., 2011, p. 16).

In line with this notion of strengths, we argue that individual strengths are personality traits that are manifested in episodes of personal excellence, rather than in episodes of comparative excellence, where differences between persons are at play (Roberts, Dutton, Spreitzer, Heaphy, & Quinn, 2005). This means that strengths can be seen as those (trait-level) personality characteristics that, when activated (state-level), are associated with the optimal functioning of a particular person. For example, when Sarah has creativity as a trait, and performs at her personal best when this trait is activated, this means she has a strength in creativity. Whether others are less or even more creative than Sarah is irrelevant. By using and being recognized for strengths, people develop their best-self concept, which refers to their cognitive representation of the qualities and characteristics they display when at their best (Roberts et al., 2005).

Scholars agree that strengths refer to at least partly to genetic aspects that ‘naturally’ make people good at certain types of tasks (Steger, Hicks, Kashdan, Krueger, & Bouchard Jr, 2007). If individual strengths are recognized by oneself and by others, they can be cultivated through practice and through developing related knowledge and skills, so that they can eventually be productively applied. Recent studies have indicated that it is the use of individual strengths, regardless of what these strengths are, that leads to valuable individual-level outcomes. Previous studies have found associations between strengths use and outcomes such as increased work engagement and well-being (Harzer & Ruch, 2013; Keenan & Mostert, 2013), reduced stress and greater self-esteem (Wood et al., 2011), higher self-rated performance (van Woerkom & Meyers, 2015; van Woerkom, Oerlemans, & Bakker, 2015) and supervisor-rated performance (Harzer & Ruch, 2014), and lower levels of sickness absenteeism (van Woerkom, Bakker, & Nishii, 2016).

Strengths use is likely to lead to higher levels of performance because it brings about work engagement, which has been defined as “a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption” (Schaufeli, Salanova, González-Romá, & Bakker, 2002, p. 74). Strengths use allows a person to perform at his or her personal best (Wood et al., 2011) and instills feelings of authenticity and energy (Linley & Harrington, 2006). Thereby, strengths use leads employees to put more effort and energy into their work (vigor), take pride and find inspiration in the work activities they pursue (dedication), and immerse themselves fully in their tasks (absorption) (Schaufeli et al., 2002). Several studies have provided evidence for a positive relation between strengths use and work engagement (Botha & Mostert, 2014; Harzer & Ruch, 2013, 2014; Stander et al., 2014; van Woerkom, Oerlemans, & Bakker, 2016).

The relationship between work engagement and performance can be explained by the ‘happy-productive worker thesis’ and the broaden-and-build theory of positive emotions (Fredrickson, 1998, 2001). According to the former, workers who experience positive states perform better than their less happy colleagues (Cropanzano & Wright, 2001) because they set higher goals, invest more effort in these goals and are better at mobilizing social resources that may help them achieve these goals. Moreover, the broaden-and-build theory (Fredrickson, 1998, 2001) proposes that positive states promote approaching and exploring behaviors, potentially motivating employees to engage in innovative work behaviors or in extra-role behaviors such as helping colleagues. A meta-analysis has corroborated the positive relationship between work engagement and respectively task- and contextual performance (Christian, Garza, & Slaughter, 2011).

## 3. Applying individual strengths in a team context: towards collective strengths use

Just because the relation between strengths use and optimal functioning holds at the individual level, does not necessarily mean that it holds at the team level too (Klein & Kozlowski, 2000). Working in a team implies that various individuals share common goals, exhibit task interdependencies, and interact socially (Kozlowski & Bell, 2013), which makes an understanding of the effects of individual strengths use in a team context increasingly complex. An individual team member who uses her strengths in a way that is optimal for her own needs, for instance, may harm rather than benefit team performance because her actions may leave some team tasks neglected, overstaffed, or passed on to other team members who do not have a strength in this area. We can compare this situation to a jazz ensemble in which all musicians are highly skilled and sound fantastic as individuals. When playing together, however, they may sound awful when all individuals decide to play to their own strengths. For this reason, simply aggregating individual-level strengths use to the unit level is inadequate if we want to understand collective strengths use.

Instead, we draw on literature on emergence to argue that individual level strengths use triggers dynamic and complex interaction processes between team members, which, over time, will lead to a manifestation of collective strengths use at the team level (Kozlowski et al., 2013). The underlying assumption is that all team members possess specific strengths that can potentially be applied in the pursuit of collective goals. However, we argue that not those strengths in themselves, but rather the use of these strengths may be seen as a collective property to the extent that there is a collective awareness of the variety of individual strengths that are represented in the team (strengths awareness), reliance on and trust in those strengths in the execution of tasks (credibility), and coordination of tasks and the allocation of team roles based on these strengths (coordination).

Key to collective strengths use is that both the individual and the team need to benefit from it. This means that teams need to become aware and develop trust in the strengths of team members that are applicable in the context of the team. When collective strengths use is high, this does not necessarily imply that all strengths of all team members will be noticed or deemed relevant in the context of the team. However, it does imply that an effort is made to identify individual strengths of team members that are relevant for central team tasks or processes, that team members have trust in those strengths, and that team tasks are distributed in line with the strengths of the team members.

If both the individual and the team benefit, team members can still be at their best because they get the opportunity to apply at least some of their strengths, even though not all of their strengths may find an application within the team. In line with this reasoning, prior research has indicated that individuals do not need to use all of their strengths at any time to be at their best (Harzer & Ruch, 2012). In cases where individual strengths profiles are totally incompatible with the team task, this would indicate a bad fit, and would prevent employees from being at their best. In these extreme cases, it may be a better option to look into opportunities to move into positions/teams where a better fit between individual strengths and team tasks can be achieved.

We have based the elements of collective strengths use (i.e. awareness, credibility and coordination) on prior work on Transactive Memory Systems (TMS), referring to the knowledge possessed by members of a group combined with a shared awareness of who knows what within the group (Lewis, 2003). This work has highlighted that the three features specialization, credibility, and coordination are required for teams to make optimal use of their combined knowledge (Lewis, 2003). Specialization refers to the differentiated structure of members' knowledge and to the awareness that team members have about who possesses what specialized knowledge. Credibility refers to the trust that team members have in the reliability of that knowledge, whereas coordination helps them organize the differentiated knowledge effectively when accomplishing team tasks.

Even though collective strengths use has a structure similar to that of TMS, there are crucial differences between the individual-level resources that are central in both concepts (knowledge/ expertise versus strengths) that have implications for each of the features of collective strengths use (strengths awareness, credibility, and coordination). First, whereas team members can localize knowledge by comparing the expertise of each team member to that of the others (O'Leary-Kelly, 1998), strengths can only be localized by examining within-person fluctuations in optimal functioning (Roberts et al., 2005). Second, team members can develop calculus-based trust in another person's knowledge based on credible information regarding the competence of another in the form of externally recognized certificates or diplomas (Rousseau, Sitkin, Burt, & Camerer, 1998). This is not the case for strengths. Trust in a particular strength is purely based on repeated interactions between individuals over time (relational trust; Rousseau et al., 1998), through which the involved parties obtain direct personal experience and information, and this trust is most likely to develop when team members see the benefits of this strength for the team as a whole. Third, whereas knowledge and expertise usually refer to task-relevant attributes, the task-relevance of strengths may be less obvious. Although these strengths may, in some cases, be related to the team task, they may also be associated with the social processes or team roles that are needed to get the job done (e.g., humor, persistence, creativity). Below, we discuss each of the features of collective strengths use.

### 3.1. Strengths awareness

Strengths awareness refers to the shared knowledge that team members have about who possesses which strengths. Group members usually determine the relative expertise of other group members through social comparison processes (O'Leary-Kelly, 1998) that allow them to develop perceptions of the performance level rankings within the group. However, because individual strengths refer to characteristics that become manifest in episodes of personal rather than comparative excellence, the process of discerning which of an individual's strengths is best in the immediate team context is quite different, as is illustrated in Fig. 2. For example, a worker may conclude that her colleague Roxanne (worker b in the figure) has a strength in perseverance because Roxanne is the most perseverant person in her team. However, individual strengths can only be identified by analyzing the situations in which people are at their personal best. Even though Roxanne is the most perseverant person in the team, perseverance may not be one of her strengths because it does not allow her to function at her personal best (Wood et al., 2011, p. 16). A within-person level of analysis of optimal performance may lead to the conclusion that Roxanne has a strength in critical thinking because Roxanne is thriving every time she can play the role of devil's advocate in discussions about proposed policies (task C in the figure).

Several instruments that are based on strengths classifications, are available for identifying individual strengths, for example, the VIA-IS assessment that measures 24 character strengths (Peterson & Seligman, 2004) or the Strengths Finder 2 (Rath, 2007). Alternatively, open-ended approaches are available, such as the feedforward interview (Bouskila-Yam & Kluger, 2011) or the reflected best-self exercise (Roberts et al., 2005). All these instruments and approaches are based on within-person levels of analysis, identifying personality traits that are manifested in episodes of personal excellence, rather than in episodes of comparative excellence, where differences between persons are at play (Roberts et al., 2005). The importance of strengths awareness is supported by studies that note that a group's ability to recognize the capabilities of its members is vital to the group's performance (Bottger & Yetton, 1988; Einhorn, Hogarth, & Klempner, 1977; Libby, Trotman, & Zimmer, 1987; Yetton & Bottger, 1982). However, proper strengths

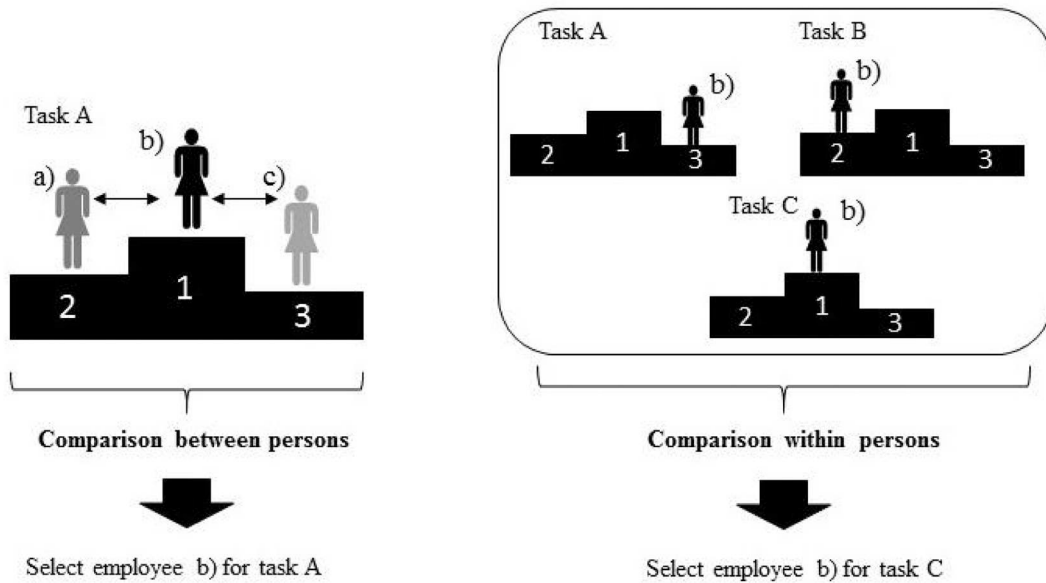


Fig. 2. Identifying group members' strengths at the between-persons level versus the within-person level.

recognition is not self-evident, as indicated by research that shows that dominance, assertiveness (Littlepage, Robison, & Reddington, 1997; Littlepage, Schmidt, Whisler, & Frost, 1995), a white skin color, or a male gender (Fiske, Cuddy, Glick, & Xu, 2002) are often mistaken for expertise. These types of biases are likely to also play a role in the recognition of strengths, particularly when these strengths do not match stereotypes – for example, recognizing bravery as a strength of a female team member (Eagly & Karau, 2002).

Team members can learn about the expertise of other team members by learning about their formal qualifications (e.g., their educational background and work experience) or by exchanging information with them. The process by which team members learn about the strengths of other team members is more complicated because there is no external validation of these strengths in the form of formal qualifications or work experience, and this process is therefore dependent on the strengths use of individual team members. The strengths of coworkers may go unnoticed when individuals working in team contexts forego their individual identities to take on the identity of the team (Smith & Berg, 1987; Terrion & Ashforth, 2002). Individual strengths may also be overlooked because some strengths (e.g., modesty, sense of humor) are primarily relevant for facilitating team processes (cf. contextual performance) and not for executing the core team tasks. Because organizational reward systems often focus on task rather than contextual performance (Bergeron, 2007), team members may be primed to only recognize strengths that directly contribute to core tasks. This may result in the team missing out on strengths that are key to the facilitation of essential team processes (e.g. a team member with a strength in optimism might motivate the team to persevere in times of adversity). Because the success of work units often depends on these types of facilitative processes (Grant & Patil, 2012; Li, Zhao, Walter, & Zhang, X.-A., & Yu, J., 2015), this would lead to suboptimal team performance.

Gaining awareness of other's strengths is dependent on their strengths use (or: strengths display), and one's own ability to spot strengths in others. This ability differs from person to person, is built gradually with age and experience, comes more naturally to people with certain personality types (e.g., people high in agreeableness and positive affectivity), and depends largely on one's general knowledge about strengths (Linley, 2010).

Learning about the strengths of coworkers is feasible by enhancing team members' general awareness and vocabulary of strengths, making them better capable of strengths spotting, referring to the intentional observation of strengths within the stories, interactions, and behaviors of others (Niemic, 2014). This can be accomplished by using the instruments and approaches as described above (e.g. VIA-IS, feedforward interview, reflected best-self), but also by paying attention to the physical, facial and voice cues that are associated with strengths deployment, such as better posture, more fluid and dramatic hand gestures, eyes widening, increased smiling, and a higher pitched voice (Linley, 2008; Biswas-Diener, Kashdan, & Lyubchik, 2017). At the moment team members observe a strength in coworkers, they can seek a conversation with the person that they observed, offering insights or asking questions about the potential strength at hand, to find out the extent to which the observed person, him- or herself, identifies with a particular strength (Biswas-Diener et al., 2017).

### 3.2. Strengths credibility

Strengths credibility reflects the extent to which team members are confident in relying on the strengths of other team members. Whereas the credibility of the knowledge of individual team members will be partly based on formal qualifications such as diplomas, certificates and licenses, this is not the case when it comes to the credibility of their strengths. Strengths credibility is based on processes of encoding strengths of team members, storing knowledge about this, and retrieving this knowledge to identify a team

member with a specific strength and turning to this person when needed. If a specific strength of a team member has been applied to the benefit of the team, mutual domain-specific trust (Mayer, 1995) will develop and team members will start to rely on this strength in their task execution. The higher the level of trust in the strengths of co-workers, the higher the risk workers will be prepared to take in depending on these strengths.

The credibility of specific strengths is likely to be strongly dependent on the specific tasks, goals, or functions of the group (Cottrell, Neuberg, & Li, 2007). This implies that team members will only value strengths of team members when these are deemed relevant for the completion of a particular task or for engagement in a particular social interaction. For instance, a person with a strength in creativity might be appreciated in a team that has to come up with an innovative product, whereas a person with a strength in humility might be less valued.

The importance of strengths credibility in teams is supported by research showing that appreciation of others' strengths facilitates effective team functioning (Owens, Johnson, & Mitchell, 2013) because it allows workers to go beyond their inclination to compare themselves or compete with others when interacting, and it prevents them from feeling threatened by them. Another study shows that the mutual recognition by team members that they respect, value, and affirm the strengths, talents and skills of their co-workers, enhances the effective functioning of work teams because it makes it easier to agree about who will do which tasks and with whom to coordinate actions (Grutterink, Van der Vegt, Molleman, & Jehn, 2013). Because strengths help people define who they are and are a central and positive aspect of their work identity (Roberts et al., 2005) and because people strive to maintain a positive identity (Dutton, Roberts, & Bednar, 2010), mutual recognition of strengths is a strong motivational force in work teams (Grutterink et al., 2013).

The emergence of affective trust in teams, which is strongly related to team performance, is driven by extra role behaviors, whereas the emergence of cognitive trust is driven by in-role behaviors (Webber, 2008). By integrating strengths-spotting exercises in team building activities, team members might become more aware of the extra-role and in-role behaviors of their coworkers, thereby enhancing the team trust.

### 3.3. Strengths coordination

Individual team members may use their strengths in a way that is optimal for their own needs but suboptimal for serving the team's needs, just as employees may craft their job in ways that benefit or hurt the organization (Wrzesniewski & Dutton, 2001). For instance, when a software engineer decides to craft her job in line with her strengths by focusing on her analytical tasks, this might come at the cost of her communication with clients. The strengths use of some group members may also limit the strengths use of other team members. This could happen, for instance, when in a team of secretaries, two persons have a strength for leadership but only one seizes the opportunity to lead a project team that tests a new electronic scheduling system.

Strengths coordination refers to an effective, orchestrated use of the strengths of individual team members to complete the group task (Lewis, 2003), thereby ensuring a match between the strengths use of individuals in the team and the team task. In a team with a high level of collective strengths use, team members work together in a well-coordinated fashion and have few misunderstandings about the different roles of individuals within the team. By retrieval processes, group members may use the developed team knowledge to find a team member who has a strength that matches the task, allowing them to specialize in their areas of greatest ability while being able to draw upon the strengths of other team members.

Strengths coordination may occur by collectively crafting the jobs of team members in line with the strengths of the members and with the shared objectives of the group (Kooij, van Woerkom, Wilkenloh, Dorenbosch, & Denissen, 2017; Leana, Appelbaum, & Shevchuk, 2009; Tims, Bakker, Derks, & van Rhenen, 2013). This implies that team members will jointly determine how to distribute and alter job tasks and team roles in line with team members' strengths to achieve a shared goal. Strengths coordination may also involve explicit agreements regarding who will complete particular aspects of a task (Leana et al., 2009). These agreements are meant to give individuals task-related roles that not only fit their unique strengths (e.g., a person with a high level of zest may be asked to chair team meetings) but also serve a relevant function for the group (Hornsey & Jetten, 2004). Although strengths coordination may be more difficult in larger monodisciplinary groups, there is often sufficient scope to ascribe informal roles based on strengths (e.g., the 'funny one' or the 'prudent one') that serve the group as a whole (Hornsey & Jetten, 2004).

Strengths coordination may present a dilemma for teams when task-related strengths of team members are associated with their personal excellence but not with their comparative excellence. This implies that although an individual team member has a strength that matches a specific team task, other team members are more proficient in this task. On the one hand, it is advantageous to match particular aspects of the team task to the strengths of team members because doing so has important motivational benefits. On the other hand, it is advantageous to match tasks based on the abilities of team members. This dilemma may be solved by mentoring or by assigning tasks to paired employees, with one employee having a strength that matches the task and one employee having an ability (but not necessarily a strength) that matches the task. Given that learning curves tend to be steep when people get the chance to further their strengths (Peterson & Seligman, 2004), it can be expected that eventually the particular strength will be associated not just with personal excellence but also with comparative excellence.

## 4. The relationship between individual and collective strengths use

Collective strengths use is an emergent phenomenon because it originates in the strengths use of individual team members, is amplified by their interactions associated with identifying, relying on, and coordinating strengths in the team in relation to situational demands, and is manifested as a higher-level collective phenomenon (cf. Kozlowski & Klein, 2000). This implies that the

strengths use of individual team members triggers dynamic interaction processes that, in the long run, lead to the establishment of collective strengths use at the team level. It also implies that collective strengths use is to some part dependent on individual strengths use. Individual strengths that are not used or are even suppressed are unlikely to be recognized and known by others. When individuals do not use their strengths in the team because they deem it inappropriate in light of the organizational culture, the social norms of the team, or the task demands, they may prioritize fitting in at the expense of their authenticity (Lee, Gino, Cable, & Staats, 2016), thereby making their strengths unavailable as resources to the team. If individual team members use their strengths, however, other team members may observe them do so, which can set in motion a range of processes that contribute to building collective strengths use. Imagine, for instance, that Anna uses her strengths of structuring and analyzing to prepare a presentation for a client. Her colleague Henry notices that Anna is at her absolute best during this presentation. Henry's observation can subsequently open up a conversation about Anna's strengths. Henry may feel inclined to compliment Anna on her successful presentation, and may ask further questions about what made her excel. This directly increases Henry's awareness of Anna's strengths. Indirectly, it may contribute to the awareness of other team members too if they overhear this conversation, or if Henry happens to tell them about it afterwards. Hearing Henry talk about Anna's strengths may also increase the credibility of Anna's strengths in the team, because Henry is a source of external validation. If, in the future, Henry has to present information in a structured manner, he may seek to collaborate with Anna to draw on these unique strengths. A successful collaboration would then further validate Anna's strengths in the eyes of Henry (and others). Over time, if such processes of observation, communication, and collaboration unfold between the different (sets of) members of Henry's and Anna's team, collective strengths use (mutual strengths awareness, credibility, and coordination) can eventually manifest at the team level. We see collective strengths use as a gradual scale instead of a dichotomy, meaning that there is not a hard cut-off point for when the strengths use in the team is collective. We base this approach on prior work on transactive memory systems (e.g., Lewis, 2003). In line with this work, we would argue that the higher the team aggregate of strengths awareness, credibility, and coordination the more functional/effective collective strengths use would be. Once manifested, collective strengths use will likely also facilitate individual strengths use, which means that we reason that individual and collective strengths use are reciprocally related. In particular, team-level strengths coordination can be a strong predictor of individual strengths use because it entrusts individuals with tasks that fit their strengths. Furthermore, when developing team knowledge about who possesses which strengths (strengths awareness), team members may help each other develop strengths awareness, thereby increasing the possibilities for making better use of their individual strengths. Recognizing and affirming an individual team member for making a distinct contribution (strengths credibility) may stimulate this individual to draw from strengths that she may not have seen as core to her self-concept or that she might not have applied frequently to the team context (Lee et al., 2016). Although self-reflection on times when one is at one's best enhances strengths awareness, research has indicated that best-self activations are more effective when they contain information received from others (Cable, Lee, Gino, & Staats, 2015). This may be partly so because best-self activations produce strong positive emotions, thereby inducing changes in self-knowledge (McAdams, 1988; Poole, Gioia, & Gray, 1989).

**Proposition 1.** Individual and collective strengths use are reciprocally related.

## 5. Context factors that contribute to the emergence of collective strengths use

Several team and task characteristics may be relevant for the emergence of collective strengths use. For instance, just as task interdependence was found to be a critical prerequisite to the development of TMS (Zhang, Hempel, Han, & Tjosvold, 2007), it may also increase the need to learn about and trust the strengths of other team members. The reason for this is that in interdependent teams, individual team members cannot complete the team task by employing only their own strengths. Furthermore, in line with research suggesting that groups are better at recognizing expertise when they have been together longer (Hollenbeck et al., 1995; Littlepage et al., 1997), team longevity or tenure may increase the chances that team members get to know the strengths of the other persons in their team. However, our aim is not to provide a comprehensive account of all possible constraints of the emergence of collective strengths use but rather to focus on the concrete role that organizations may play in stimulating the emergence of collective strengths use. To this end, we focus on a strengths-based climate and strengths diversity as relevant constraining factors that may influence the emergence of collective strengths use.

### 5.1. Strengths-based climate

An important factor that influences the emergence of collective strengths use is a strengths-based team climate (cf. van Woerkom & Meyers, 2015), which refers to team members' shared perceptions of strengths-based human resource philosophies (Arthur & Boyles, 2007) in terms of appreciation for their strengths and opportunities to identify, develop, and use their strengths. A strengths-based climate can be seen as a more specific form of an inclusive climate. Whereas an inclusive climate is characterized by the shared belief that people's diverse demographic backgrounds are valuable resources that should be used to achieve the organization's strategic goals (Nishii, 2013), a strengths-based-climate focuses on the value of strengths diversity as a source of learning and competitive advantage.

Several human resource practices may bring about a strengths-based climate. For example, recruitment and selection practices that are informed by knowledge about the strengths of applicants and knowledge about the strengths that are lacking in the team will enhance the opportunities for strengths use. Socialization practices that recognize and highlight newcomers' strengths at the very beginning of the employment relationship (Cable, Gino, & Staats, 2013) will contribute to strengths appreciation. Bottom-up

processes of job (re)design such as job crafting (Wrzesniewski & Dutton, 2001) and idiosyncratic (i-deals) that individuals negotiate with their team leader and coworkers (Lai, Rousseau, & Chang, 2009; Rousseau, 2005) will allow for more opportunities to customize job content to individual strengths. Additionally, strengths-based performance appraisals (Bouskila-Yam & Kluger, 2011) aimed at discovering unique task-relevant qualities of team members can maximize the opportunity for workers to create a job role in which they can use their strengths to contribute to the team task.

To get team members to reflect on each other's strengths, and thereby create a strengths-based climate, several practices can be used. For instance, team members can conduct feedforward interviews with each other (Bouskila-Yam & Kluger, 2011), in which the interviewee is encouraged to describe an experience at work during which they felt energized and identify the individual strengths that were responsible for this experience. Alternatively, team members can do reflected best-self exercises (Roberts et al., 2005) in which they ask coworkers in their team for feedback on when they saw them at their best and what is was that they saw them doing. Another option is that team members first identify their own strengths by filling in a questionnaire that is based on a strengths classification (e.g. the VIA-IS assessment, (Peterson & Seligman, 2004) or the Strengths Finder 2 (Rath, 2007) and then share the results with their colleagues in the team.

It is likely that a strengths-based climate will facilitate the emergence of collective strengths use (see Fig. 1). In a strengths-based climate, individuals are not expected to conform to the dominant norms of the culture in order to be treated as an insider. Therefore, a strengths-based climate may increase the ability of the team to recognize and appreciate particular strengths of team members that may seem unusual in light of the dominant team culture or that would be seen as irrelevant to the task without such a climate. Following social identity theory (Tajfel & Turner, 1986), when workers feel that they are an accepted member of the group, they will attribute positive characteristics to other members of the in-group, thereby facilitating the recognition of strengths (strengths awareness). The feeling of belongingness also brings about trustworthiness among group members (Brewer, 2007), thereby enhancing reliance on strengths (credibility) and task allocation in line with individual strengths (coordination). Additionally, applying performance appraisals or socialization practices where workers are stimulated to reflect on their own strengths makes it more likely that they will develop a greater sensitivity for the strengths of others in their team as well, thereby facilitating collective awareness of the strengths of team members (strengths awareness) and trust in those strengths (credibility). Finally, stimulating workers to create a job role in which they can use their strengths to contribute to the team task makes the matching of team members to tasks more effective (coordination).

**Proposition 2.** A strengths-based climate is positively related to collective strengths use.

It is likely that a strengths-based climate will not only be directly related to collective strengths use, but will also facilitate the process by which the strengths use of individual team members will eventually lead to collective strengths use. When individual team members display their strengths in the context of the team, a strengths-based climate will help the other team members to recognize and appreciate these strengths, and to find an application for these strengths that may benefit the team as a whole.

**Proposition 3.** A strengths-based climate will strengthen the positive relationship between individual and collective strengths use.

## 5.2. Strengths diversity

Generally speaking, two types of diversity in teams have been studied. Surface level diversity refers to demographic differences among team members that are highly visible and can therefore be easily observed. Especially demographic characteristics are thought to reflect underlying differences, and can therefore evoke individual prejudices, biases, or stereotypes (Fiske & Neuberg, 1990), leading to stereotyping and equity issues. Deep-level diversity, by contrast, refers to less readily apparent diversity based on psychological features of work team members (Harrison, Price, Gavin, & Florey, 2002). It is likely that deep-level diversity is less problematic regarding stereotyping and equity issues. Various psychological features are so unique for an individual that they do not provide a basis for subgroup formation, and categorization, given that “everybody is different” (Van der Vegt & Bunderson, 2005).

Because strengths refer to personality traits that are manifested in episodes of personal excellence, strengths diversity can be seen as a form of deep-level diversity and refers to differences in the individual strengths that team members possess. Similar to the idea that teams can have a more or less differentiated structure of knowledge or expertise (Hollenbeck et al., 1995; Lewis, 2003), we assume that the available strengths in a team can vary from homogenous to heterogeneous. This assumption is in line with strengths theories proposing that people will vary from one another in the features of their personality that are associated with their optimal functioning (Biswas-Diener et al., 2017). We expect to find a higher strengths diversity or heterogeneity in multidisciplinary than in monodisciplinary teams, because research on the personality-vocational interest relationship suggests that people with similar strengths are attracted to similar work disciplines (Costa, McCrae, & Holland, 1984).

The relationship between individual strengths use and collective strengths use may be moderated by strengths diversity, in such a way that a higher level of strengths diversity is more beneficial for the emergence of collective strengths use. The combination of different individual strengths means that each member adds unique attributes that are necessary for the team to be successful (Muchinsky & Monahan, 1987). If team members recognize this, they may be more eager to engage in strengths coordination to make optimal use of the unique attributes. In addition, they may also be more willing to rely on other team members for certain aspects of the team's tasks. By contrast, if team members possess very similar strengths, relying on other team members and coordinating tasks according to strengths may be considered unnecessary. If team members opt to complete tasks themselves rather than to rely on others, mutual strengths credibility is unlikely to develop. Moreover, strengths coordination may be avoided altogether because it can represent a source of conflict if certain tasks are highly coveted, but barely available.



However, high strengths diversity may not always influence the emergence of collective strengths use positively because high degrees of diversity can give rise to conflicts and communication problems, as proposed by the social categorization perspective on team diversity (Williams & O'Reilly, 1998). In line with research findings that suggest that belief in the value of diversity is a crucial moderator of the relationship between team diversity and team performance (van Knippenberg, Haslam, & Platow, 2007) we propose that strengths diversity will only have a positive effect on the emergence of collective strengths use, if the perceived human resource philosophies in the organization value strengths diversity as a source of learning. For this reason we propose that the effect of strengths diversity on the emergence of collective strengths use is moderated by a strengths-based climate.

**Proposition 4.** A strengths-based climate will strengthen the positive effect of strengths diversity on the positive relationship between individual and collective strengths.

## 6. Team-level outcomes of collective strengths use

Collective strengths use contributes directly to improved team performance by ensuring better use of the available strengths in the team and by allowing group members to specialize in their areas of greatest ability while being able to draw upon the strengths of other team members. In addition to this direct effect are two other mechanisms by which collective strengths use contributes to better team performance, namely, enhancing team work engagement and fostering team learning.

Collective strengths use may affect team performance by serving as a team-based resource that brings about team work engagement. Team work engagement refers to a shared work-related psychological state that is positive and fulfilling, that is characterized by team vigor, dedication, and absorption and that emerges from the interaction and shared experiences of the team members (Torrente, Salanova, Llorens, & Schaufeli, 2012). In contrast to individual work engagement, which is dependent on the availability of job resources such as feedback and autonomy, team work engagement is dependent on the complex interactions between team members that are directed at motivating others and managing both affect and conflict (Costa, Passos, & Bakker, 2014). Collective strengths use plays a role in two of these interaction processes: motivational processes and affect-management processes. First, collective strengths use fosters a sense of collective efficacy through interaction processes that emphasize and validate the strengths of different team members (Costa et al., 2014). Collective efficacy, or the shared belief that a team can successfully master its tasks, motivates team members to pursue tasks with effort and persistence (Bandura, 1997). Second, collective strengths use may help team members to regulate each other's feelings in a positive way (cf. literature on controlled interpersonal affect regulation; Niven, Totterdell, & Holman, 2009). In particular, Niven et al. (2009) introduce two affect-improving interpersonal regulation strategies that can be linked to collective strengths use: the *positive engagement strategy* and the *acceptance strategy*. The former strategy implies that team members try to elicit positive changes in the way other team members perceive (difficult) situations or negative affective states. Collective strengths use may help to do that, for instance, when the team faces a setback. Team members can then use their knowledge of each other's strengths to highlight the team's qualities, thereby reestablishing the belief that the team can succeed in the task at hand (Costa et al., 2014). The latter strategy implies that team members communicate validation to one another. Talking about each other's strengths is a highly feasible way to make other team members special and appreciated. This reaffirms the positive relationships among team members and thereby improves affective responses (Niven et al., 2009).

In turn, it has been shown that team work engagement is associated with enhanced team performance (Salanova, Llorens, Cifre, Martínez, & Schaufeli, 2003; Tims et al., 2013; Torrente et al., 2012) in the same way as individual work engagement is related to individual job performance. Costa et al. (2014) propose that team work engagement is particularly relevant in so-called action phases (cf. Marks, Mathieu, & Zaccaro, 2001), where teams directly work towards accomplishing a goal (e.g., finalizing year-end accounts, performing open-heart surgery). In these phases, team vigor helps teams maintain a high level of energy and sustained effort. In transition phases, during which teams evaluate their past performance and plan for future team activities (cf. Marks et al., 2001), team dedication helps teams draw more profound conclusions and develop better, more carefully elaborated plans for improvements (Costa et al., 2014).

**Proposition 5.** Collective strengths use is positively related to team performance.

**Proposition 6.** Team work engagement partially mediates the positive relationship between collective strengths use and team performance.

The effect of collective strengths use on team performance is also cognitive, because it contributes to team learning. Within teams, workers can learn not just from their own experiences but also from those of other team members (Ickes & Gonzalez, 1994). Because team members can interact with one another, knowledge and skills gathered by one team member can be transmitted to coworkers by giving feedback, explanations, or advice (Ellis et al., 2003). Furthermore, information exchange between team members brings sources of knowledge together and transfers that knowledge into new knowledge structures or routines (Clark, Amundsen, & Cardy, 2002).

When people feel that their colleagues recognize, value, and affirm their unique, positive characteristics, they become less reluctant to ask for advice, express disagreement, or offer support to coworkers (Grutterink et al., 2013), thus leading to increased team learning (Ely & Thomas, 2001). This dynamic is confirmed by Lee et al. (2016), who find that affirming team members' best selves before collaborating (i.e., by soliciting and receiving narratives that highlight one's positive impact on close others) makes them more likely to exchange information with one another, leading to increased team performance.

**Proposition 7.** Team learning partially mediates the positive relationship between collective strengths use and team performance.

## 7. Individual-level outcomes of the transactive strengths system

In teams with high levels of collective strengths use, individuals take on group roles that tap into their strengths and serve the group's interest, which may fulfill both the need to belong and the need to be unique (Hornsey & Jetten, 2004). This, in turn, will lead to feelings of well-being at the individual level. Role differentiation not only provides reinforcing relations with others, but it also offers distinctive roles for individuals to play. When a social role is consistent with a person's strengths, the enactment of this role will elicit a sense of authentic self-expression and a sense of connectedness to the group (Bettencourt & Sheldon, 2001). In a similar vein, Sheldon, Ryan, Rawsthorne, and Ilardi (1997) find that a high consistency of trait expression across roles is a predictor of psychological and physical well-being, indicating that there are functional costs to assuming varied identities.

Well-being at work can be conceptualized in a variety of ways, with job satisfaction (Spector, 1997) and work engagement (Christian et al., 2011) as two of the most commonly studied variables. Both variables reflect pleasurable states, but only work engagement is characterized by high levels of energy and activation (Bakker & Oerlemans, 2011). Therefore, work engagement is also seen as an essential predictor of individual work performance. Employees who are engaged can perform better because engagement releases powerful, positive emotions such as joy that prompt employees to take on and perform tasks in a goal-directed, energetic way (Bakker, Schaufeli, Leiter, & Taris, 2008). Similarly, work engagement is seen as a motivational construct that inspires employees to devote sustained effort to completing their tasks (Christian et al., 2011). Moreover, engaged employees are able to accumulate and build personal as well as job resources through, for instance, approaching colleagues to ask for feedback or advice (Bakker et al., 2008). These resources, in turn, help them to better address the job demands they are facing (van Woerkom, Bakker, & Nishii, 2016) and to keep up good performance even in the face of adversity.

**Proposition 8.** Individual work engagement mediates the positive relationship between collective strengths use and individual performance.

## 8. Boundary conditions

Teams that perform complex tasks that are ever-changing and that require a nearly perpetual updating of knowledge benefit more from informal structures that allow them to put the diverse strengths of team-members to optimal use. Highly routine or simple tasks often do not require inputs from diverse people and are consequently accomplished more quickly if performed by one person (van Knippenberg, de Dreu, & Homan, 2004). This is in line with research by Akgun, Byrne, Keskin, and Lynn (2006), who find that the impact of TMS on product outcomes is stronger when the task is more complex. This reasoning is in line with literature on the relationship between TMS and performance (Ren & Argote, 2011; Ren, Carley, & Argote, 2006) and with Deming (2017), who argues that especially for team tasks that require high levels of human interaction and adaptation to changing circumstances in the workplace, team workers need to play off of each other's strengths.

**Proposition 9.** Task complexity strengthens the positive relationship between collective strengths use and team performance.

## 9. Discussion

So far, research on strengths use in organizations has focused exclusively on the individual level, thereby neglecting that the team context has an important influence on whether individuals' strengths will be noticed and appreciated by others and, ultimately, whether they will be used (Biswas-Diener et al., 2011; Quinlan et al., 2011). In many organizations, workers perform a variety of tasks, but they clearly perform better at some tasks than others. Arguably, organizations can capitalize on these performance differences through team processes that allow employees to specialize in the tasks they perform best (e.g., by means of trading tasks). Deming (2017) even goes so far as to propose that interaction processes that allow workers to benefit from each other's strengths are "at the heart of the human advantage over machines" (p. 1634). Because these team processes draw on the individual strengths of team members, they would fall under the broader research area of positive psychology (Seligman & Csikszentmihalyi, 2000). Surprisingly, relatively little work in this rapidly expanding research area has focused on positive psychology phenomena at the team level so far (Gable & Haidt, 2005; Hart & Sasso, 2011; West et al., 2009). We reason that work on such team phenomena is needed to establish positive institutions and positive HRM practices that promote optimal human development and functioning (Seligman & Csikszentmihalyi, 2000).

The concept of collective strengths use will contribute to the development of positive institutions via its effects on more-proximal team-level outcomes. While extant team research has mainly focused on cognitive processes that foster team effectiveness (cf. literature on TMS; Wegner, 1987; and the Information/Decision-Making perspective; Williams & O'Reilly, 1998), we propose that collective strengths use will stimulate both a cognitive and an energetic/motivational process that enhances team performance. Quinn, Spreitzer, and Lam (2012) make a strong case for the relevance of energy at work by noting the close connection between the energy that is radiated by people and their success. The authors furthermore argue that energy is a critical organizational resource that can help employees address increasingly high work demands and that counteracts work-related health complaints such as burnout (Quinn et al., 2012). The relevance of energetic processes at the team level has been highlighted by research on team work engagement (e.g., Costa et al., 2014; Torrente et al., 2012), showing that this team construct is positively related to team performance. Moreover, Owens, Baker, Sumpter, and Cameron (2016) have recently introduced the concept of relational energy, which they characterize as the "heightened level of psychological resourcefulness generated from interpersonal interactions that enhances

one's capacity to do work" (p. 37). The authors deliver evidence that individuals who report deriving positive energy from their interactions with colleagues are also more likely to be highly engaged and highly performing. Therefore, although energetic/motivational processes have received little attention in team research to date, they seem to represent a potentially important determinant of group performance (van Knippenberg et al., 2004). The team level construct of collective strengths use adds to the literature on team effectiveness by highlighting motivational effects on team performance.

The benefit of collective strengths use is that team members will feel valued for their authentic self (i.e., who they really are). Being appreciated for and being able to express one's true self has positive effects on the individual's well-being (Cable et al., 2013; Cable, Lee, Gino, & Staats, 2015) that go beyond the effects of being appreciated for one's knowledge. Of course, it is desirable that team members share their diverse bases of knowledge at work. Appropriate elaboration of this knowledge (van Knippenberg et al., 2004) will contribute to the achievement of team goals. However, the process through which these team goals are reached has received less attention and may even involve conflict (van Knippenberg et al., 2004), which can result in lower individual well-being. By contrast, when focusing on the collective use of personality strengths, there is room to explicitly recognize and utilize strengths that positively contribute to the team process (e.g., humor, kindness, social intelligence). This means that collective strengths use builds on individual characteristics that are relevant for both the task and the social processes that lead to task accomplishment. This is in line with the literature on extra-role behavior and contextual performance, which acknowledges the importance of positive and discretionary behavior for performance even though these behaviors are not specified by role prescriptions or recognized by formal reward systems (Van Dyne & LePine, 1998).

Collective strengths use is based on intrapersonal excellence (i.e., one team member is at her personal best when she engages with a certain task) instead of comparative excellence (i.e., one team member has more knowledge about a certain task than another). Being comparatively better than others at a certain task does not necessarily mean that one likes the task or is motivated to carry it out. Rather, being at one's personal best when performing a task implies that one enjoys a task and is intrinsically motivated to perform the task (Peterson & Seligman, 2004; Roberts et al., 2005). Furthermore, working on strengths creates energy and psychological capital (Wood et al., 2011), which can serve as the driving force for intentional growth and development (Meyers, van Woerkom, de Reuver, Bakk, & Oberski, 2015). This makes collective strengths use a potentially powerful tool to enhance not only individual task performance but also the individual's well-being, motivation, and learning.

In a team context, the strengths use of one individual may come at the cost of the strengths use of another individual, or it may contribute only to the individual's own well-being, not to team performance. Collective strengths use emerges over time as a result of the strengths use of individual team members and interactions between team members related to identifying, relying on, and coordinating strengths in the team in relation to situational demands (cf. Kozlowski & Klein, 2000). Collective strengths use will thus require careful orchestrating to ensure that all team activities contribute to the attainment of team goals and that all team members get the chance to employ their strengths in the best possible way when executing team activities. This may take place by collectively crafting the jobs of team members in line with their strengths and with the shared objectives of the group. This type of job crafting implies that team members will jointly determine how to distribute and alter job tasks and team roles so that individuals receive task-related roles that not only fit their unique strengths, but also serve a relevant function for the group. Note that this process will lead to an optimal fit between strengths of team members and team tasks or roles at the team level, and not necessarily at the individual level. For example, this may mean that a specific team member, let us name him Robert, may not get to employ one of his strengths (e.g., curiosity) even though this strength is required to accomplish the team's tasks. If another team member, Linda, possesses this strength as well, the strengths coordination process may envisage Linda taking on the tasks that require curiosity. If strengths coordination is successful, however, Robert will be charged with team tasks that play to his other strengths, for instance, fairness and perspective.

### 9.1. Practical implications

HRM practitioners face a dual challenge due to changing workforce demographics. On the one hand, the aging working population and the scarcity of skilled laborers compels them to find new strategies to make the most out of the talents possessed by their current workforce. On the other hand, the increasingly diverse workforce calls for strategies to manage diversity in an effective and fair way (Nishii, 2013; van Knippenberg & Mell, 2016). Focusing on differences in individual strengths may be a new avenue towards leveraging the full potential of a diverse workforce. Individuals who feel appreciated for their personal strengths and who perceive the opportunity to apply their strengths at work will be happier and healthier and will perform better (Harzer & Ruch, 2013; Harzer & Ruch, 2014). However, collective approaches towards the use of strengths in teams are apparently even more beneficial than individual-level strengths approaches. This is because increasingly more organizations are composed of team-based sub-structures (De Dreu & Weingart, 2003), which require a careful coordination of individual inputs to the team processes. Collective strengths use represents a means towards coordinating team efforts in a way that both uses the available talent in the best possible way and is highly motivating.

The collective use of strengths at work is especially relevant in many customer-oriented occupations in which there is a growing demand for teams that can provide a creative, personal touch and customize production to the needs of clients (Deming, 2017). Moreover, teams that work in a knowledge-intensive setting characterized by a high task complexity and/or high task novelty will benefit from collective strengths use. As indicated by the OECD (2006), most private- and public-sector organizations make use of some form of (internally or externally sourced) knowledge-intensive activities such as research and development, business or technical consulting, and IT services.

To establish the emergence of collective strengths use in teams, organizations can work on creating a strengths-based climate (see

Fig. 1). Such a climate helps individuals see and value each other's unique qualities, even if these qualities are not directly tied to the team's core tasks. Moreover, leaders play a key role in fostering a strengths-based climate (Dwertmann & Boehm, 2016; van Woerkom & Meyers, 2015). On the one hand, organizations need senior managers who act as positive role models and fully embrace a strengths-based philosophy by communicating that their organization can only flourish when employees are able to play to their strengths. Their enacted values and behaviors are likely to trickle down to lower organizational ranks (Boehm, Dwertmann, Bruch, & Shamir, 2015). On the other hand, it can be expected that team leaders are crucial agents in the enactment of strengths-based HR practices, exerting a strong influence on how these practices are perceived by employees (Brewster, Gollan, & Wright, 2013; Purcell & Hutchinson, 2007). This implies that when key organizational decision makers adopt a strengths-based philosophy but are unable to convince line managers of the value of this new philosophy, an organization might not succeed in making the transition and might develop a managerial fad (Abrahamson, 1991) that is superficially embraced instead of consistently implemented within the whole organization. Even if strengths-based philosophies are clearly communicated to line managers, these managers may have difficulties implementing this philosophy because they experience a conflict between their role as manager and their role as strengths coach (Ellinger & Bostrom, 2002). Consequently, promoting collective strengths use would be a question not only about developing strengths-based HR philosophies and designing the right HR practices but also about training line managers to use strengths-based practices. Line managers could, for instance, learn to help employees discover their strengths through strengths spotting (Linley, 2010), apply a stronger focus on strengths in performance and development interviews (Bouskila-Yam & Kluger, 2011), or facilitate collective job crafting (Leana et al., 2009). By supporting broad applications of such strengths-based practices throughout the organization (van Woerkom & Meyers, 2015), organizations can facilitate the work engagement and performance of individuals and teams.

## 9.2. Conclusion

This paper has highlighted that strengths use in organizations needs to be studied as a multi-level phenomenon that emerges from the strengths use of individual team members, and their interactions associated with identifying, relying on, and coordinating strengths in the team in relation to situational demands. We argued that collective strengths use may improve team performance by enhancing team learning and team work engagement. By studying the impact of positive psychology principles in a team context and by positioning individual strengths as a new lens through which one can look at team diversity, this paper provides a valuable contribution to research on team performance. By deriving testable propositions about the antecedents and outcomes of collective strengths use and individual-level strengths use, we hope that this study may inspire future research on this topic.

## Declaration of Competing Interest

None.

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