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Heedful proactivity: How individual tactical considerations contribute to pre-screening of innovative ideas in the hierarchy

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Purposefully fostering creativity and innovation through stimulating proactivity requires grappling with an apparent trade-off. On the one hand, organization members need some autonomy to initiate change. On the other hand, managers might want to steer initiatives and retain control over outcomes. The current paper advances recent work on how proactivity is enacted as a compromise between autonomy and control by studying the process through which bottom-up ideas are shared in highly hierarchical organizations. Based on an abductive analysis of data from informants in 42 organizations, we develop the concept of pre-screening, which denotes collective action patterns geared towards qualifying individuals' innovative ideas before they are made subject to formal decision making. We explain how proactive individuals' tactical considerations—informed by their holistic prospective thinking, risk hedging, temporal splitting, and a both/and approach to proactivity and hierarchy—influence the actions through which ideas are shared and who are approached first (e.g., supervisors vs. peers). We also exemplify how action patterns accomplishing idea sharing and pre-screening are entangled with more mundane workplace routines. Overall, the paper sheds new light on ideas' journeys in the context of hierarchy and opens up multiple avenues for future research.

KEYWORDS
employee-driven innovation, hierarchy, idea screening, idea sharing, proactivity

1 | INTRODUCTION

Firms aiming to prosper and grow through creativity and innovation are frequently alerted to the importance of stimulating proactivity, a work behaviour focused on self-starting activities such as voicing ideas for new products or services and championing improvements to current ways of working (Bindl & Parker, 2010; Morrison & Phelps, 1999; Neessen et al., 2019; Parker & Collins, 2010; Scott & Bruce, 1994; Van Dyne & LePine, 1998). Not only can proactivity increase variety or novelty from the start of the innovation process, but opportunities to have one's own ideas realized are increasingly desired and expected by new members of the work force (Donald, 2023). More concretely, stimulating proactivity among lower level managers and employees can benefit firms in at least three ways. First, it may increase innovation effectiveness by alerting higher level managers and executives to problems and solutions that might otherwise have gone unnoticed (Anderson et al., 2014; Engen & Magnusson, 2018; Felin, 2016; Nonaka, 1991; Oldham, 2003). Second, it can benefit innovation efficiency through exploiting underutilized competences of frontline workers and others employed outside of R&D (Høyrup, 2012; Kesting & Ulhøi, 2010). Third, it can decrease turnover and boost overall productivity by heightening employees' engagement and perceived work meaningfulness (Bindl & Parker, 2010; Fay et al., 2023; Foss & Hallberg, 2016; Kim et al., 2010).

Most research on proactive work behaviours emphasizes the notion that, although collaboration can make good suggestions great (Beretta & Søndergaard, 2021; Ulrich et al., 2015), individual employees' initial and persistent efforts to share and champion ideas is fundamental for innovation success (Mumford, 2000; Paulus et al., 2012; van Essen et al., 2022). Ensuring that employees make proactive efforts, however, requires grappling with an apparent trade-off (Elert & Stenkula, 2022). On the one hand, willingness to participate in creativity and innovation has standardly been linked to granting individuals high autonomy and limiting top-down control (Amabile et al., 1996; De Spiegelaere et al., 2016; Parker et al., 1997). Especially regarding jobs not formally involving research and development, it is assumed that a flat organizational governance structure with high individual freedom lowers the threshold for speaking up and reduces the path from idea to action (Fuller et al., 2010; Gao & Jiang, 2019; Morrison, 2014). On the other hand, upholding formalization and control can help ensure that bottom-up initiatives remain productive, as management can more easily prevent organization members from dedicating time to harmful ideas that may undermine both organizational and societal goals (Elert & Stenkula, 2022; Fuchs et al., 2019).

Literature on creativity and innovation management has shown that firms take various steps to balance autonomy and control when seeking to promote proactivity. For example, company-wide idea contests and web-enabled ideation systems grant people from all functions and levels freedom to make creative suggestions (e.g., Beretta, 2019; Beretta & Søndergaard, 2021; Vuculescu et al., 2021). At the same time, such solutions allow managers to define in advance which problems will be addressed and to determine the format and criteria relevant for idea sharing and assessment. Similarly, in corporate service development processes, employees from multiple departments may be invited to participate in the ideation stage (e.g., Kahn et al., 2013) while R&D experts facilitate the brainstorming and decide on ideas' further conceptualization and realization (Sukhov et al., 2021). Regrettably, attempts to streamline proactivity in such ways often fall short of expectations (Beretta et al., 2023). For instance, firms underperform in idea screening and selection by failing to realize ahead-of-the-market suggestions (Birkinshaw et al., 2011; Kahn et al., 2013; Tidd & Bessant, 2020). A persistent challenge is the lack of out-of-the-box and truly groundbreaking suggestions, as these appear associated with less formalized and unsolicited creative behaviour (Björk et al., 2010).

Recently, a new perspective has arisen on how innovation can be fuelled from below despite conditions of high formalization and top-down control. Rather than adhering to rules or programs governing idea sharing, organization members may partake in less formal "proactivity routines," which denote socially constructed and accepted processes through which changes can be initiated (Vough et al., 2017). Notably, individuals might selectively determine which norms to follow—such as approaching their next-in-line versus utilizing their roles in management-funded projects—depending on the nature of their ideas (Renkema et al., 2022). One big caveat, however, concerns the lack of validation of proactivity routines beyond studies of single organizations (Renkema et al., 2022; Vough et al., 2017). Individuals' tactical considerations relevant for picking one way of sharing over another, moreover, are insufficiently described. Additionally, as managers remain dominant in governing also the less formalized sharing routes described by extant literature, the question of how proactivity routines might help individuals realize path-breaking ideas requires further attention as well (Renkema et al., 2022). To begin addressing these knowledge gaps, it seems required to map how individuals from a larger selection of organizations navigate proactive idea sharing while paying special attention to the tactical considerations affecting sharing patterns in contexts with high formalization and top-down control. Doing so could, in turn, provide new insights into proactive organization members' prospects of getting their innovative ideas across in such settings.

In the present paper, we study organization members' tactical considerations relevant for sharing innovative ideas proactively in the context of hierarchy, the latter understood as a governance form characterized by high power distance, specialization, and formalization as well as explicit patterns of authority with top-heavy knowledge concentration (Adler, 2001; Colombelli et al., 2019). Our methodological approach, involving a combination of drawing and writing tasks inspired from cognitive mapping (Laukkanen, 2012; Laukkanen & Eriksson, 2013), enables us to distil core beliefs about the conditions for proactivity as well as associated idea sharing tactics in the aforementioned settings. Concretely, we collected data from informants employed in relatively junior positions in 42 hierarchical organizations located in the Beijing area in China. Informants represented medium to large-sized enterprises specialized in internet technology, pharmaceuticals, marketing, finance, banking, logistics, insurance, automobile, airline, petroleum, chem-tech, manufacturing, and real estate. Our analysis of the 121 resulting cognitive maps was geared towards uncovering surprises and contrasting information in light of gaps identified in existing literature (Timmermans & Tavory, 2022).

The main outcome of our analysis is an empirically rooted account focused on a process we label *pre-screening*: collective action patterns that serve to qualify individuals' innovative ideas before they are made subject to formal decision making. Building on insights from innovation management concerning idea screening as informal and processual (Ulrich et al., 2015) and the notions that routines are shaped by situational circumstances (D'Adderio, 2008; Dittrich & Seidl, 2018; Howard-Grenville, 2005) and can be interdependent (Kremser et al., 2019), we expose variation in how individuals initiate pre-screening (e.g., by approaching superiors vs. trusted peers at carefully chosen times and places) and link such variation to differing tactical considerations and prioritizations (e.g., avoiding that the idea gets stolen, preventing backlash, and identifying potential weaknesses of the idea). We identify a general tendency to engage in *risk hedging*, a behaviour informed by *holistic prospective thinking* whereby potential reactions to ideas are anticipated before anyone get to hear about them. Notably, by *temporally splitting* the envisioned actions necessary for idea realization across specific people and places, proactive individuals can exercise autonomy while also allowing others to influence and exercise control over the content and outcomes of proactivity.

Overall, our informants revealed a *both/and* rather than an either/or perspective on proactivity and hierarchy where the presence of the latter would not necessarily hinder the former.

These insights contribute to literature on bottom-up creativity and innovation by illuminating the ideas' journeys in the context of hierarchy. First, we validate the notion of proactivity routines (Vough et al., 2017) while adding specification regarding the entanglement of such routines with other routines at work. Second, nuancing the intuition that different ideas are shared via different paths (Renkema et al., 2022), we unpack how individuals' differing tactical considerations and risk hedging impacts routinized proactive behaviour and its outcomes. Third, we extend prior work on informal idea screening as collective sensemaking (Ulrich et al., 2015) by specifying how single proactive organization members can tactically initiate and shape this process. Overall, our work illuminates ways in which lower level organization members can champion and refine their innovative ideas while shielding them from getting screened out prematurely. We propose in our discussion that, compared to using official suggestion schemes, this kind of heedful and covert proactive behaviour may increase the perceived fit of ideas eventually reaching higher level decision makers and potentially boost the survival rate of ideas initially breaking with managerial expectations. Several avenues for future research are outlined.

2 | THEORETICAL BACKGROUND

In this paper, we build new theory by means of abduction, which allows for grounding new concepts in empirical data while also using existing literature to generate plausible explanations for surprises offered by those data (Timmermans & Tavory, 2022; see also Section 3). To set the stage for our theory building, we introduce the key literatures we draw on and define key constructs relevant for the article's contributions.

2.1 | Proactivity in hierarchical organizations

Proactive organizational behaviour refers to the activity of taking charge to initiate changes in the work place, for instance by voicing ideas for new products or services and championing improvements to current ways of working (Bindl & Parker, 2010; Morrison & Phelps, 1999; Neessen et al., 2019; Parker & Collins, 2010; Scott & Bruce, 1994; Van Dyne & LePine, 1998). As indicated by work taking stock of the different facets of proactive behaviour (Parker & Collins, 2010), we assume proactive organizational behaviour to be distinct from, but interrelated with, other ways of taking initiative such as selling issues to managers (Ashford et al., 1998) and seeking feedback from superiors about one's performance (Ashford & Black, 1996; De Stobbeleir et al., 2011). Proactive organizational behaviour has mainly been investigated as an individual construct, with some exceptions (see Segarra-Ciprés et al., 2019; Twemlow et al., 2022). The notion of proactivity routines, however, directs attention to proactivity as a stagewise process involving multiple individuals (Vough et al., 2017). Especially in organizations where individuals cannot implement their own suggestions directly, others can promote but also hinder realization of initiatives (De Stobbeleir et al., 2020). Some organizations use carefully designed platforms and systems to streamline individual proactivity (Beretta, 2019; Beretta et al., 2023; Vuculescu et al., 2021). In this way, individuals are encouraged to suggest solutions while management decides on which problems to target and how to evaluate them. Peers can play an important role as well by giving feedback on and promoting proposals submitted by others (Beretta & Søndergaard, 2021).

In the empirical part of this paper, we zoom in on the specific proactive behaviour of sharing one's own innovative ideas at work (Oldham, 2003). We do this in recognition of the fact that the act of idea sharing may in itself bring value to a given organization and its members (Felin, 2016; Kim et al., 2010). Idea sharing, in essence, is a critical bridge between the relatively more researched activities of idea generation (Amabile et al., 1996) and the further development, selection, and realization of innovative ideas (Anderson et al., 2014; Axtell et al., 2000; Oldham, 2003). Stimulating idea sharing can bring new perspectives into the innovation process (Anderson et al., 2014; Nonaka, 1991; Oldham, 2003), reduce biases among executives (Felin, 2016), and ensure exploitation of the under-utilized competences of lower level managers and employees (Høyrup, 2012; Kesting & Ulhøi, 2010). Furthermore, such proactive work behaviour can increase employee engagement (Foss & Hallberg, 2016; Kim et al., 2010) and thus contribute to a lower turnover and higher productivity (Bindl & Parker, 2010).

Idea sharing and other forms of proactivity have traditionally been associated with ensuring an open, trusting work climate where individuals feel empowered to speak up and to freely contribute (Amabile et al., 1996; De Spiegelaere et al., 2016; Orth & Volmer, 2017; Parker et al., 1997). Hierarchical governance and its associated structural arrangements have therefore been treated as something organizations should trade off in favour of bottom-up creativity and innovation (Ahmed, 1998; Alencar & Bruno-Faria, 1997; Martins & Terblanche, 2003). The associated evidence base, however, is fairly limited. Some studies warn that a steep structure leaves individuals without the necessary motivation and flexibility to generate and share their ideas (Kastelle, 2013; Steiber & Alänge, 2013). Others note that, when employees have low autonomy, only the least innovative suggestions (i.e., those already corresponding to managers' mindsets and expectations) will be rewarded (Bindl, 2019; Campbell, 2000). Such arguments do chime with the observation that formalized suggestion schemes often fail to deliver on their promises (Beretta, 2019; Beretta et al., 2023). Rather than trying to streamline innovation by means of such systems, some have therefore suggested that organizations should be completely flattened to eliminate restraining feedback in a "hierarchy of no" (Owens, 2011) and to enable individuals to implement their own ideas directly (Hamel, 2011).

Other research suggests that firms will benefit from retaining key elements of hierarchy while pursuing bottom-up creativity and innovation. For instance, control mechanisms have been found to positively affect the relation between group proactivity and product innovation (Segarra-Ciprés et al., 2019). And although hierarchy might suboptimize idea generation, it could foster efficient selection of

bottom-up ideas that do emerge (Keum & See, 2017). However, outright positive interactions between highly centralized decision making and opportunity formation has also been noted (Barney et al., 2018), and increasing control has been found to positively influence individual exploration as well as exploitation in a workshop setting where autonomy was already low (Bidmon & Boe-Lillegraven, 2019). In fact, nonautonomous individuals appear to generate ideas rated as radically creative as long as extrinsic rewards are high (Gilson et al., 2012). Similarly, lacking power appears to motivate individuals to come up with ideas if they can use those ideas to gain influence (Sligte et al., 2011). Notably, however, these studies did not explicitly investigate individual proactivity in the context of hierarchy and did not focus on idea sharing. Thus, while they help to nuance simplistic ideas about individual proactive behaviour, they have less to say about bottom-up idea's journeys within hierarchies.

2.2 | Proactivity as routines

Rather than looking at formalized systems and standard operating procedures, processes of idea sharing in hierarchical organizations might be derived from studying informal norms as well as the work behaviour informed by and informing such norms. Prominently, Vough et al. (2017) collected data about employee initiatives in a highly formalized call centre in the UK and found that "even in low-autonomy environments, such as call centers, individuals may engage in proactive work behaviors, provided there is a clear routine that supports such behaviors" (p. 1193). Routines are in this context understood to be "repetitive, recognizable patterns of interdependent actions, carried out by multiple actors" (Feldman & Pentland, 2003, p. 95). As noted by Sonenshein (2016), who studied creativity in a retail setting, agents carrying out routines make individual choices (e.g., share ideas in certain ways) that can result in innovative outcomes as well as maintain consistency across time and space (e.g., regarding the steps through which ideas are shared). In this way, routines are sources of both stability and change in organizations (Feldman & Pentland, 2003).

Drawing on the idea of routines' ostensive and performative aspects (see Feldman, 2000; Feldman & Pentland, 2003), Vough et al. (2017) described proactivity routines as consisting of two aspects as well: norms regulating which proactivity-related actions are appropriate (ostensive), and specific actions taken by employees at specific moments to share and champion suggestions for change (performative). In terms of the action patterns making up the routine they observed, the authors took note of a stepwise process where individuals first consulted with managers, then gathered evidence with the help of team members, and lastly escalated to managers with authority to implement the suggested changes. Later on, they followed up with managers and asked what came out of their initiatives, which led some to feel validated and others discouraged from further proactive behaviour (Vough et al., 2017).

Adding to this emergent view of proactivity as patterns of interdependent actions, a study of a highly formalized laboratory in the Netherlands returned evidence of "routes" through which employees could contribute to innovation (Renkema et al., 2022). Similar to what Vough et al. (2017) observed, one route involved employees adhering to the hierarchical order by first approaching their closest manager with their innovative ideas. This route, the researchers noted, appeared complimentary to the more formalized option of sharing ideas through an online suggestion system where all inputs were assessed by a responsible department manager. Another alternative route, moreover, was offered via management-funded projects. Such projects stimulated employee participation in organizational development by explicitly tasking workers to think creatively about current processes and solutions (Renkema et al., 2022, p. 3544). Although proactivity routines might ensure that individual proactive behaviour finds an outlet in the hierarchy, prior work observed persistent tensions between bottom-up ideation and top-down control. Despite some norms and systems being supportive of proactivity, higher ups in the hierarchy discouraged such behaviour by screening out or failing to appropriately deal with ideas (Renkema et al., 2022, p. 3545; Vough et al., 2017, p. 1205). Taking this into account, it is notable that informants of the prior studies alluded to non-managers, predominantly peers, as important for generating evidence relevant for convincing higher ups (Vough et al., 2017) and for discussing or testing ideas within teams (Renkema et al., 2022). Such observations substantiate the need to further scrutinize how proactive individuals might selectively approach different actors in order to overcome constraints to getting their innovative ideas across.

2.3 | Individuals' tactical considerations concerning proactivity

Although the conceptualization of idea sharing as a norm guided process is promising for understanding how proactivity can unfold in environments traditionally considered to hamper such behaviour, proactivity routines have not yet been validated beyond studies of single organizations (Renkema et al., 2022; Vough et al., 2017). Thus, the extent to which specific idea sharing patterns are recognizable across a larger collection of firms remains to be empirically addressed. Furthermore, individuals' tactical considerations relevant for picking one way of sharing over another are not well understood. Renkema et al. (2022) linked various sharing routes to different ideas and inferred that supervisors were more often approached when an idea required changes to the key ways of working (e.g., new ways of conducting analysis or setting up new work stations). Fixes to more general and minor errors in how things were organized, by contrast, were more often associated with using formalized suggestion systems governed by department heads. However, the authors also noted overlap between the routes, suggesting that other tactical considerations could also have been at play.

The quest to generate new insights about individual idea sharing tactics might benefit from reconsidering the tendency in prior work to conceptualize idea sharing as a bottom-up process and idea evaluation and approval as top-down decision making. While such a separation is in line with a stage or phase based model of creativity and innovation

(see, e.g., Anderson et al., 2014; Perry-Smith & Mannucci, 2017), it is somewhat at odds with other work theorizing these actions as more intertwined. Ulrich et al. (2015), for instance, studied how individuals drew on other actors' interpretations as they introduced novel technology based ideas. The result of this kind of sensemaking was, according to the authors, a gradual and collectively accomplished screening process which not only informed decisions about adoption or rejection but also shaped the content of the ideas (Ulrich et al., 2015). This chimes with routine dynamics scholars' emphasis that actions within a routine as well as between different routines are interdependent (Kremser et al., 2019). In other words, a given idea sharing routine might not necessarily be separated in time and place from actions accomplishing idea screening and evaluation. Furthermore, routines research has shown that situational circumstances pertaining to specific places, priorities, and artefacts (D'Adderio, 2008, 2011; Dittrich & Seidl, 2018; Howard-Grenville, 2005) can influence how a given routine is performed and what it accomplishes. Following this, individual tactical considerations concerning the early steps of proactivity (e.g., who to approach, which artefacts to use, and picking a time and place) could potentially shape the screening and eventual acceptance of the idea but also the nature of the idea itself. How actors, artefacts, and specific situational circumstances interact in the context of proactivity routines, however, remains to be elaborated. Empirical work as well as additional theorizing is needed to better explain how and why individuals share their ideas following certain routes in hierarchical work environments.

3 | METHOD

To learn more about the process of proactive idea sharing in the context of hierarchy, we carried out an abductive study (Timmermans & Tavory, 2022) inspired by cognitive mapping techniques (e.g., Axelrod, 1976; Bougon et al., 1977; Swan, 1995) using interpretive coding (Gioia et al., 2013).[1] Cognitive mapping has a long tradition in management and organization research (see Kaplan, 2011) and allows for efficiently accessing convictions and causal beliefs via written and visual communication. The technique is associated with high versatility as well as rigor (Laukkanen & Eriksson, 2013) and allows for adjusting the questions to specific research purposes. As we were interested in the conditions for proactivity across multiple business settings, we relied on accessing the beliefs of key informants from different organizations. The underlying assumption was that these informants, alike others in their organization faced with comparable tasks and problems, had internalized key features and mechanisms of their respective domains and could therefore reveal something general about their contexts (Laukkanen & Eriksson, 2013). Individuals act based on their interpretations and beliefs about the organizational context and not necessarily the context as observed by researchers (Amabile et al., 1996; Markóczy, 1997; Shah & Corley, 2006). Core beliefs about the organizational context and conditions for proactivity are therefore relevant input for theorizing how proactivity will be enacted given those beliefs.

Our approach is novel in the context of proactivity research, where collecting data on past proactive episodes and behaviours is more common (e.g., Renkema et al., 2022). Proactivity can be difficult to identify and track without simultaneously influencing the process itself, and in-depth observational studies can compromise insights relevant across many organizations (Eisenhardt & Graebner, 2007). Inquiring about the past can also present challenges such as recall biases (Eisenhardt, 1989). In light of this, our study focused on the prospects for sharing innovative ideas and was cognizant of potential reservations among informants with respect to verbalizing sensitive information. We therefore opted for letting informants share their perspectives by writing and drawing, which we also deemed helpful for reducing validity threats from social desirability (see the next subheadline for details)

3.1 | Data, research setting, and informants

The data collection relevant for this study took place in two iterations: in the spring and fall of 2013. The analysis was conducted predominantly in 2014, 2017, 2020, 2022, and 2024. These multiple iterations had to do with the study's abductive nature (Timmermans & Tavory, 2022), and our repeated efforts to couple the insights from our initial coding with relevant literature. Our key informants were 42 individuals—a large number for this type of study (Laukkanen, 2012)—employed by 42 firms located in the Beijing area in China. We used informants from different companies to increase the possibility of arriving at general insights. The specific research setting, where high power distance and top-down control are the dominant norms for decision making (Farh et al., 2007; Hofstede et al., 1997; Meyer, 2017), meant that we expected to capture data from informants relatively more used to hierarchy as a governance form compared to informants of many prior proactivity studies. We validated this initial sampling assumption with insights provided by each informant.[2]

We saw it as ideal if the informants had basic knowledge about management and organizational behaviour, while not being trained in creativity and innovation specifically. We reasoned that this would provide them with a perspective and vocabulary to produce more detailed answers than individuals without such basic knowledge. At the same time, it would ensure that their perspectives were reflective of organization members that were not expected to generate and share innovative ideas as part of their normal work tasks, the latter in line with the view of proactivity as a kind of extra-role behaviour. To satisfy these criteria, we recruited informants via two part-time MBA classes at a top league university. The data were collected from a class taught by one of the authors as well as a class taught by another lecturer. A research assistant and another author with no ties to the university administered the data collection. The informants represented medium to large-sized enterprises operating in the industries of internet technology, pharmaceuticals, marketing, finance, banking, logistics, insurance, automobile, airline, petroleum, chem-tech, manufacturing, and real estate. They were working in relatively junior positions with some lower to middle managerial experience (e.g., team leader).

In light of our research focus, which required inquiring about potentially sensitive information and organizational dynamics not generally known to outsiders, we thought carefully about which information to ask for and how to ask for it. For instance, we feared that having our informants go "on record" for a one-on-one interview could evoke stress and self-censorship. To overcome this, we restricted questions that could lead to worries about identifying specific organizations and used tools from cognitive mapping to allow informants to share their thoughts in a relatively indirect manner. Inspired by several previous studies (see Laukkanen, 2012; Laukkanen & Eriksson, 2013), we created a mix of a drawing (task 1) and two writing (task 2 and 3) to keep informants cognitively alert. Their written answers to the tasks served as raw data.

For task 1, we asked informants to draw a simple "causal map" to illustrate the outcomes associated with sharing innovative ideas in their workplace. In light of the established effect of outcome expectations on employee innovation (see Baer, 2012), we did this to indirectly learn about their organizational context and understand their basis for deciding to engage in proactivity or not. We used the term "innovative ideas" to probe for relatively developed ideas with a clear outcome in mind rather than more vague suggestions or concerns. For task 2, we asked informants to write down at least three examples of how they would, as an employee in their organization, go about sharing their innovative idea. We did this to learn whether and how they would adjust their proactive behaviour to their organizational context. Third, we asked informants to write how they would, assuming they would get the required managerial authority, seek to increase idea sharing in their organization. We did this to further understand how informants perceived the current organizational set-up and climate for proactivity, and to infer whether they saw the current set-up as a proactivity barrier. To ensure that the drawing task would work satisfactorily, it was piloted in an international MBA class (including Chinese participants) at Scandinavian university. We slightly adjusted the instructions after the pilot to increase clarity.

3.2 | Analysis

Figure 1 provides a visual illustration of our analytical process, including our consideration of additional literature and updating of the research focus along the way. Our informants returned, across the two rounds of data collection, input for in total 121[3] cognitive maps (representations of linked concepts) constructed based on their answers. While task 1 already returned causal links drawn by the informants, we identified causal links from task 2 and task 3 by treating the perceived antecedents of idea sharing and informants' envisioned idea sharing behaviours as causes of idea sharing. Our interpretation of the maps started by identifying concepts from the raw data pertaining to each informant and proceeded through deriving more general themes. We used the software application CMAP3

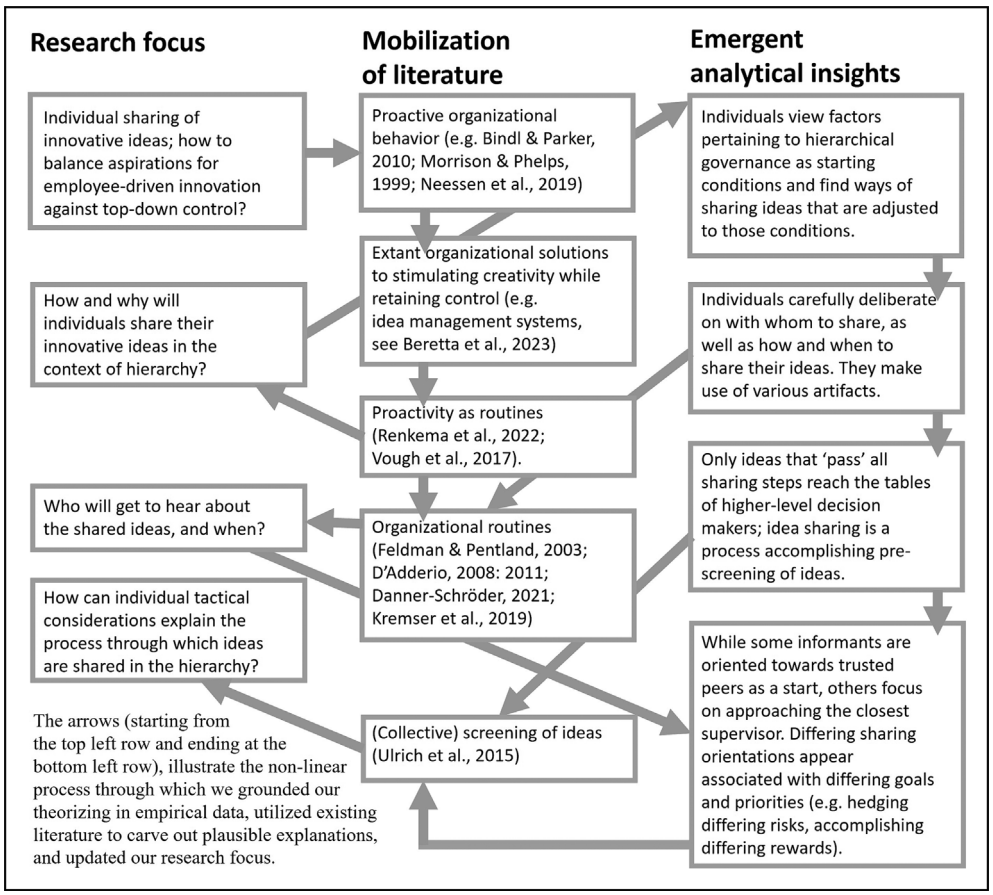

FIGURE 1 Analytical process.

(Laukkanen, 2012) and the visual illustration software CmapTools to aid our interpretation, as this enabled us to generate domain-specific maps[4] to holistically depict informants' beliefs as well as zoom in on and compare the cognitive maps of individual informants (see Figure A1 in Appendix A for examples of visualizations). We revisited all the original statements of a given informant after identifying overlaps with the statements of others. This helped us to flesh out common patterns, understand the distinguishing features of those patterns, and identify counterfactual "outlier patterns" that deviated from the dominant majority. We merged and revised the wording of some initial codes and aggregated them to four second-order themes (see Figure 2, for transparency we report also the first-order themes).

Concretely, we identified four distinct ways in which informants envisioned idea sharing, whereof the majority indicated what we denoted as "temporal splitting": enacting proactivity as multiple interdependent and yet temporally separated actions. We noted that key distinguishing features of the different ways of sharing pertained to who received the ideas and at which point in time, and specific adjustments that we understood as "risk hedging." Our cross-informant comparison helped to see these patterns in connection with beliefs about the consequences of engaging in idea sharing and beliefs about how sharing could be increased. We noted a "holistic prospective thinking," which extended beyond immediate and individual-level effects of sharing. Furthermore, informants appeared guided by a "both/and approach," suggesting that they viewed hierarchical governance aspects as a starting point for stimulating proactivity and generally did not construe such aspects as a definite barrier. To explain these patterns, we consulted literature on organizational routines (Feldman & Pentland, 2003) and more recent literature on proactivity routines (Renkema et al., 2022; Vough et al., 2017). Proceeding from this, we focused on the elements creating recognizable patterns but also variation in our data: specific interpersonal interactions (Danner-Schröder, 2021), mobilization of various artefacts at specific times and places (D'Adderio, 2008, 2011; Feldman & Pentland, 2003), and routine interdependence (Kremser et al., 2019). To help build a more solid ground for our contribution, we connected with relevant work on stimulating bottom-up innovation while retaining top-down control. To distinguish our theorizing from, but also to connect it with, work conceptualizing idea screening as informal collective sensemaking (Ulrich et al., 2015), we named our focal mechanism "pre-screening"[5] and articulated how individuals' tactical considerations and resulting sharing behaviour contributed to such early-stage, covert kind of idea assessment and validation.

4 | FINDINGS: HEEDFUL PROACTIVITY AS A PROCESS OF PRE-SCREENING

To explain how individuals' tactical considerations impact proactivity in our study context, we focus on pre-screening, which we define as a step-by-step process through which organization members' ideas are prequalified before they are made subject to more open and formal consideration. In line with theory on organizational routines (Feldman & Pentland, 2003), we understand pre-screening as a collective action pattern involving multiple actors. While all actors do not necessarily have insight into the entire pre-screening process, they partake in it by sharing ideas or by becoming acquainted with and responding to a given idea at different times and places. Proactive individuals are the ones to initiate pre-screening by carving out time to work on their innovative ideas; this can be done by directly approaching others to discuss them or by conducting research and analysis in isolation to verify an idea's potential. Notably, pre-screening involves considerable secrecy and is partly weaved into performances of other routines such as regular meeting cycles or lunching with superiors or peers. Thus, the pattern of pre-screening is not easily recognizable for those who observe from a distance what actors do. Yet, we contend that most organizational actors will contribute to upholding the specific action patterns that define pre-screening because they are upholding specific rules, procedures, and power dynamics that make it more costly to share ideas more openly.

Somewhat in contrast to the notion of a proactivity routine as a socially constructed and accepted process through which individuals can initiate changes (Vough et al., 2017), our research findings indicate that pre-screening is accomplished in part by avoiding certain expectations. Some actors, such as a direct supervisor or an influential team member, may expect to be the first to know about an individual's given idea but might also disapprove of it once it becomes known to them. Proactive employees can anticipate such negative reactions by engaging in holistic prospective thinking, where they deliberate on how their idea will affect colleagues, team members, and supervisors. They can then hedge risks of backfiring effects by sharing ideas gradually and often covertly over time. For instance, a norm of exposing a given initiative to one's supervisor might be temporarily ignored or—if an idea is deemed not feasible after verifying it with others—never acted upon (see Figure 3 and elaboration under the next headlines). As we return to in our discussion, this way of enacting proactivity makes only a subset of initiatives subject to formal consideration by higher ups. Relatedly, it highlights the importance of individuals' tactical skills for getting their ideas across and implemented in the context of high hierarchy. We further consider individuals' tactical considerations below, as we introduce the four analytical themes informing our conceptualization of pre-screening. Figure 2 provides an overview of all the analytical codes and themes resulting from our analysis.

4.1 | Holistic prospective thinking as a basis for proactivity

Already early in our analysis we noted that, on the question of what were the likely outcomes of sharing their innovative ideas, our informants took a holistic approach. Concretely, rather than limiting their answers to specific personal rewards (e.g., a promotion, bonus, or increased credibility and respect) or potential negative consequences (e.g., being envied or laughed at), they considered closely who in the organization would benefit from their idea. Furthermore, the idea's general impact on how work was currently carried out was given

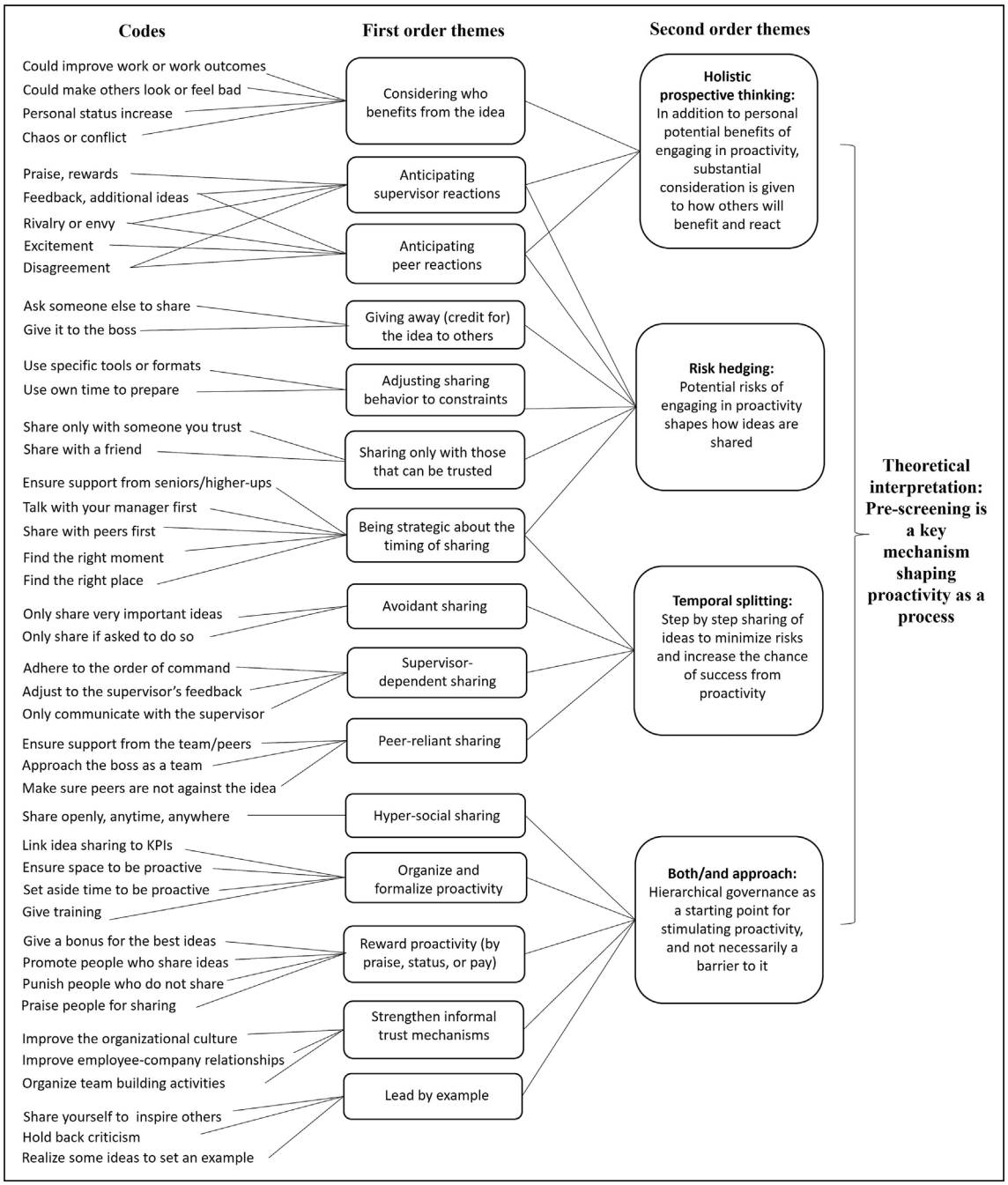

FIGURE 2 Overview of codes and themes.

weight (i.e., an idea could improve, but also distract from, current ways of working). Reactions from team members and other co-workers, as well as reactions from managers, were anticipated.

Concretely, according to our informants, a manager might sometimes fear that sharers wanted to "challenge their position" and therefore be prone to turn down certain ideas. Informants were also concerned about causing disagreements with envious peers (e.g., "If your boss likes you and you behave very innovatively, you might be envied by your work mates"). Such backfiring effects could also materialize if the idea involved activities "disturbing their customs" or would "make others look bad." Other risks involved the idea being deemed "too risky," "too immature," or simply "not good enough," and that the sharer would be ridiculed as a consequence. At the same time, sharers acknowledged the possibility that others could help in improving the idea once they got to hear about it, as sharing could lead to "feedback" and "more ideas." As expressed most clearly by one informant, however: "If your idea is really good and innovative, others may steal [it] and pretend that it belongs to him/her." Another informant worried that "[Idea sharing] can bring conflict among employees, since everyone would like their [own] ideas to be considered." The challenge, thus, was to find a way of sharing that minimized such risks.

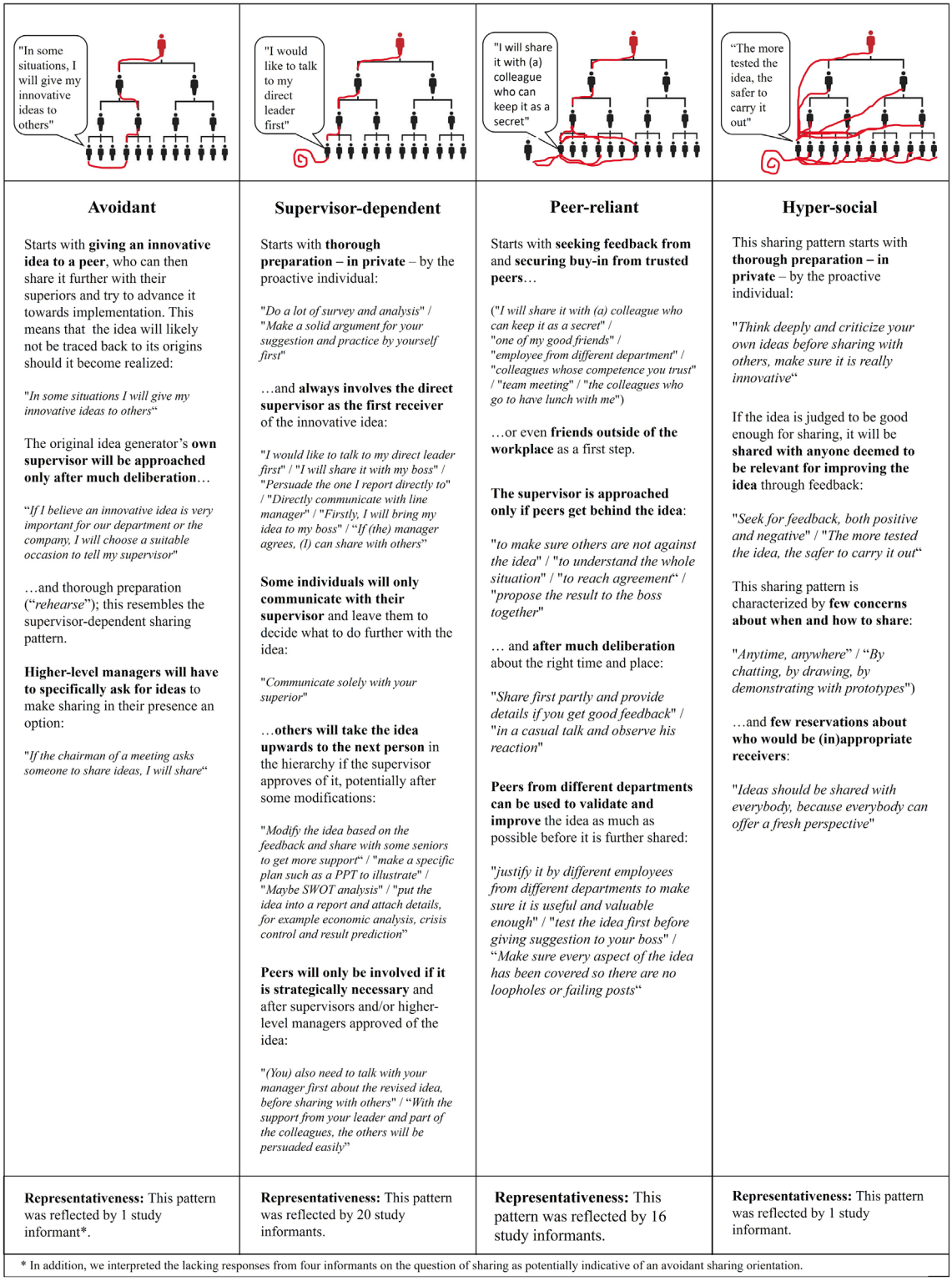

FIGURE 3 Examples idea sharing patterns. [Colour figure can be viewed at wileyonlinelibrary.com]

4.2 | Risk hedging as a key concern shaping how proactivity is enacted

Informants converged around specific efforts that could reduce anticipated risks of enacting proactivity. One informant stood out by explaining that they would not share any of their ideas unless they felt sure it was "really important for the organization." Even then, the informant held a preference for giving away the idea for others to share with managers, rather than approaching anyone themselves. Another informant stood out by explaining they would share their

ideas "any time, anywhere," albeit after some initial preparation on their own. The overwhelming majority of informants, however, congregated around a focus on sharing ideas in a manner that helped reducing risks associated with open sharing. For example, they deliberated on which tools (e.g., SWOT analysis, results predictions, crisis control analysis) and formats (e.g., PowerPoint presentation) to use. Some envisioned a thoroughly developed presentation, delivered in a formal meeting with managers, supported by a careful and persuasive market analysis they would conduct on their own. As one informant put it, it was important to "Make a solid argument for your presentation and practice by yourself first." Others envisioned an informal personal encounter where they would take advantage of an already scheduled meeting or lunch routine to casually mention their idea and observe the reaction of their supervisor or team members.

Trust was mentioned as an important factor for deciding who got to hear about an idea first, especially if team members or other colleagues would get approached before managers (e.g., "I will share it with (a) colleague who can keep it as a secret"). Furthermore, all informants except for one appeared to tactically think about the timing of sharing, including with whom to share first (e.g., "Share with colleagues first, to make sure others are not against it" and "Always check with the supervisor first"). Concretely, 20 of the 42 informants emphasized they would always approach their direct leader first, and 16 informants indicated they would initially share their idea with "colleagues whose competence you trust" and "who can keep it as a secret." A couple of informants even envisioned first sharing their idea outside of their organization (e.g., with "one of my good friends") or with an "employee from different department." As evident from our data structure (Figure 2), we interpreted this behaviour as risk hedging with its foundation in anticipations of supervisors' versus peers' reactions and with a basis in established repertoires of actions available for reducing negative sharing effects. In essence, informants reflected a careful consideration of the pros and cons associated with approaching people with different roles and functions, and they favoured paths that kept those risks in check.

Notably, to ensure the best conditions for discussing their ideas and avoid negative reactions due to circumstances not related to the idea as such, informants emphasized picking the right moment and place for sharing. Picking the right moment involved attending to the supervisor's mood ("when the boss feels happy") and considering which other changes were occupying managers. Picking the right place involved deciding between locations associated with work (e.g., supervisor's office, meeting room) versus locations that provided opportunities to detach from ongoing work (e.g., a nearby coffee place, a restaurant, or the canteen).

4.3 | Temporal splitting as an approach to engaging in proactivity while hedging risks

Considering our informants' responses as a whole, a double bind appeared to apply: Sharing ideas first to peers could help gather support for a given idea and help to improve it. However, some peers could potentially try to sabotage an idea (as it could disturb their current ways or working or lead to more work) or even steal it. Sharing to supervisors could help overcome the latter risk by keeping peers out of the know until the idea had been approved by top management, but could backfire due to envy from peers who would have preferred to have their say first or to share the credit. However, if the idea would receive less praise than first anticipated, looking bad in front of peers might be preferred over losing face in front of the relatively more powerful supervisor. In any case, higher level managers would have to get involved to actually implement the idea. To get the attention of those higher ups, the supervisor was an important intermediate. Peers could potentially also be useful as support.

To tackle this complicated landscape of risks, our informants reflected a general pattern of seeking to temporally split idea sharing into distinct and possibly interlinked activities. When the proactivity process started with sharing ideas with peers (i.e., to "make sure others are not against the idea," "to reach agreement," or "make sure it is useful or valuable enough"), it typically continued by approaching supervisors—either alone or together with the team—before the idea would potentially be floated to higher level management. For instance, one informant outlined an elaborate strategy of first approaching their team members with their idea, then integrating their suggestions, and later repackaging it to the supervisor "as a team idea." When the supervisor would be approached first, by contrast, peers could be informed later on—albeit only if the idea was deemed suitable for implementation after higher ups had their say as well. The "outlier-informants" temporally split actions as well, either into individual preparation followed by open sharing or by handing over the idea to others who would then take it upwards in the hierarchy. On average, the informants implied that innovative ideas would have to pass through 2,5 hierarchical levels, or sharing steps, before being made subject to a formal implementation decision. The envisioned sharing steps involved differing constellations of people, places, and artefacts, and the later steps would only be enacted if the first steps yielded favourable responses. Figure 3 provides a stylized overview of four patterns resulting from temporal splitting of idea sharing, including exemplary data snippets pertaining to those patterns.

A few additional distinguishing factors, which we identified by comparing the different sharing-orientations of our informants with the different sharing-related consequences they imagined, are worth mentioning. First, the number of peer-reliant sharers that mentioned organizational conflict (40%) and peer rivalry (38%) as possible outcomes of idea sharing was almost twice as large as among the supervisor-dependent sharers (20%). Furthermore, six out of the seven informants whose answers mentioned risks of being fired or punished by managers envisioned to always first approach their closest supervisor. Informants that suggested peer-reliant sharing, therefore, may have been relatively more focused on maintaining consensus and avoiding social punishment as a consequence of sharing, while those suggesting supervisor-dependent sharing may have been more worried about formal financial punishment including termination of their current contracts.

Second, informants in the supervisor-dependent group more frequently highlighted the risks of being overlooked or ridiculed by peers

when sharing ideas (40% and 30% compared to 25% and 6%), which could have further demotivated them from choosing peer-reliant sharing. Similarly, potential extrinsic rewards, such as increased credibility, promotion, and bonuses, were more frequently mentioned by informants who preferred a supervisor-dependent sharing behaviour (30% compared to 19%). Peer-reliant informants were more concerned with intrinsic and collective positive outcomes such as an improved work culture (30% compared to 5%). Thus, the specific path through which an idea will become shared and—in consequence—pre-screened in the hierarchy could depend on differing relationships of sharers with co-workers versus supervisors. While higher level managers will standardly need to get involved in order for ideas to get formal approval, the action patterns through which an idea will reach the tables of these decision makers (if at all) will depend on how sharers balance harmony with co-workers versus advancing their own careers with help from the supervisor.

4.4 | Both/and perspective on proactivity and hierarchy

Our analysis uncovered structural factors that, from the informants' perspective, could contribute to proactivity in their organizations. Interestingly, none suggested to outright flatten the hierarchy to promote idea sharing. Instead, the informants appeared to take hierarchical governance as a starting point for stimulating more proactivity and did not necessarily see it as a barrier. In fact, informants envisioned to further formalize proactivity by making it part of KPIs, by allocating more time to it (e.g., the 20% rule known from Google) and by dedicating more space for it (e.g., facilitating meetings explicitly dedicated to idea sharing, setting up suggestion boxes, and putting in place systems that would make it easier to submit as well as track and evaluate ideas). In addition, they envisioned introducing stronger formal controls in the form of extrinsic rewards (bonuses and promotion) and increasing informal control by means of leadership and praise. They also emphasized strengthening informal trust mechanisms through organizing team-building activities and improving employee relations. Lastly, their answers reflected the view that managers should lead by example through sharing their own ideas, by realizing some employee-driven initiatives to inspire others, and by refraining from criticizing ideas from subordinates—at least in public. As one informant put it: "If you want to criticize, do it in private."

We noted that statements emphasizing the importance of keeping an open door for increasing idea sharing, and statements about increasing trust-building between supervisors and subordinates, came from informants who envisioned sharing their ideas first with peers. Informants from this group also highlighted a need to acknowledge ideas regardless of quality and to welcome employees to "interrupt at any time." By contrast, suggestions to increase extrinsic rewards, bonuses, and key performance indicators were given almost three times more frequently by informants who emphasized approaching their supervisors first. Altogether, nevertheless, a both/and rather than either/or way of thinking about hierarchy and proactivity (i.e., the presence of one does not rule out the other) appeared to dominate. Several informants also emphasized the importance of some degree of top-down control over which ideas would gain approval ("If the sharing process is flawed, bad ideas might get carried out and jeopardize the future of the organization"). Yet, in line with the other key findings, tactically motivated workarounds (i.e., the covert sharing accomplishing pre-screening) appeared to be preferred over more overt and spontaneous forms of idea sharing. As one informant put it, referring to the step-by-step sharing approach they had just outlined: "In this way, you will never lose face!"

5 | DISCUSSION AND IMPLICATIONS

This paper built on data from 42 informants in hierarchical organizations to explore how individuals navigate idea sharing in such contexts, and paid special attention to the impact of individuals' tactical considerations on proactivity as a process. Prior literature indicated that formalized idea management systems may function as compromises between granting people creative autonomy and exercising control, but the effectiveness of such schemes is debated (Beretta et al., 2023; Vuculescu et al., 2021). Interestingly, some case studies pointed to an alternative path for bottom-up innovation in formalized work settings: proactivity routines through which organization members can share their ideas (Renkema et al., 2022; Vough et al., 2017). Our work added to this body of knowledge by theorizing pre-screening, which we denoted as a norm-guided process resulting from individuals' covert idea sharing. Such sharing, involving several steps and actions that are entangled with more widely recognizable workplace routines, serves to pre-qualify suggestions before they are made subject to formal consideration.

More concretely, our fleshing out of pre-screening illuminated individuals' tactical considerations relevant for ideas' journey in the context of hierarchy. In addition to inclinations to hedge risks associated with more open forms of idea sharing, pre-screening appears to result from individuals' temporal splitting of actions pertaining to idea sharing as well as their holistic prospective thinking about who will benefit from a given idea and how they might react to it. Importantly, differing relationships with, and concerns pertaining to, supervisors versus peers can make proactive individuals anticipate differing reactions and make differing tactical choices pertaining to ideas sharing. In this way, despite having low autonomy and being subject to considerable top-down control, they can orchestrate when and how others get to hear about their suggestions and—potentially—shield ideas from getting screened out prematurely.

5.1 | Contributions to extant literature

Overall, our research findings and associated theorizing contributes to literature on the process and management of proactivity by illuminating ideas' journeys in the context of hierarchy. First, we validate the notion of proactivity as routines (Vough et al., 2017) by showing

the dominance of step-by-step and norm-guided idea sharing in a sample of informants stretching beyond single organizations ($N = 42$). Relatedly, we establish that a given idea sharing routine can be entangled with other routines in the workplace, such as those pertaining to conducting the lunch break or team meetings. Routine interdependence is well-known among scholars interested in routine dynamics (Feldman et al., 2021; Kremser et al., 2019) but the notion that action patterns accomplishing proactivity might become intertwined—and purposefully so—with more mundane workplace practices has been missing from the literature on proactivity. This insight is important as it hints that proactivity as routinized behaviour might not always need to be socially accepted as such (Vough et al., 2017). Instead, idea sharers can strategically piggy-back on the lunch routine or utilize regular meetings not commonly associated with proactivity to make their ideas known. Rather than having its foundation in specialized artefacts (e.g., issue boards or idea management systems; see Renkema et al., 2022 and Vough et al., 2017), routinized proactive behaviour can thus be based on creative borrowing of artfacts and procedures associated with other routines.

Second, we go beyond the suggestion in current literature that different ideas are shared via different paths (Renkema et al., 2022) by fleshing out how individuals' tactical considerations and risk hedging impact to whom an idea is introduced as well as the settings and artefacts mobilized in this introduction. Specifically, prior work on proactivity routes linked sharing behaviour involving supervisors to ideas that required changes to the key ways of working. Idea sharing via suggestion systems, by contrast, was seen as suitable for proposing more general and minor organizational improvements (Renkema et al., 2022). We nuance this work by highlighting individual idea sharers' risk anticipations and temporal cognitions as key determinants of how and with whom ideas are shared. Furthermore, we underscore that sharers might tactically involve peers or other trusted nonmanagers to verify the quality of their ideas but also to provide support needed before approaching superiors. Thus, an idea shared with a peer at one time and place might be changed or reframed before the boss gets to hear about in another setting. While some sharing routes might be more suited for certain types of ideas (Renkema et al., 2022), our research findings suggest that a carefully orchestrated sharing path might change the content of ideas. In essence, pre-screening could help disseminate but also to mould bottom-up initiatives before they reach the higher layers of hierarchical organizations—thus possibly increasing ideas' potential for getting approved and implemented.

As our third key contribution, we also nuance and extend work on idea screening. Following the dominant literature, screening of ideas is typically handled by appointed experts or higher level managers and tends to be conceptually separated in time and place from idea generation and sharing (Anderson et al., 2014; Perry-Smith & Mannucci, 2017). However, some prior work theorized idea screening as a process of informal sensemaking (Ulrich et al., 2015) carried out by many different organizational actors whose work might not formally involve decision-making about ideas. We help integrate this view into the proactivity literature by showing how processes of idea sharing and idea screening can be intertwined. At the same time, we extend the prior work by substantiating how single organization members can covertly initiate and considerably shape informal screening by orchestrating when and how others get to make sense of their suggestions. Thus, while idea screening can be seen as collective sensemaking resulting from people's need to reduce equivocality caused by clashes between current and novel products and practices (Ulrich et al., 2015), we contend that the sensemaking process might be deliberately utilized by proactive individuals who seek to validate and potentially refine innovative ideas before making them subject to more formal and risky assessment.

5.2 | Managerial implications

The findings and theorizing introduced in this paper provides managers with a new perspective on ideas' journeys in the context of hierarchy and can inform interventions to stimulate proactivity within the constraints of hierarchical governance. Concretely, the notion of pre-screening suggests that proactivity might not necessarily diminish when managers prefer to retain strict reporting lines and exercise considerable control over how work is carried out. A fair share of proactive organizational behaviour in such contexts, however, might take place in a covert manner and thus "go under the radar" of higher level managers.

An optimistic perspective would be that pre-screening helps to resolve tensions between autonomy and control pertaining to bottom-up innovation, as it upholds an efficient sorting mechanism that spares top management from dealing with ideas that are misaligned with the organization's core competencies and priorities (Elert & Stenkula, 2022). Critically, proactive individuals' risk hedging tendencies can motivate them to seek feedback and validation at lower hierarchical levels and—as part of this process—refine the content and framing of their ideas to make them more relevant and convincing. Compared to idea sharing using more formalized systems where individuals give up more control over their ideas from the outset, pre-filtering might therefore reduce the risk that biased top managers shut down good and potentially path breaking ideas too early in their development (Owens, 2011).

A more pessimistic perspective, however, would stress that pre-screening is difficult to observe and therefore difficult to manage. As evident from the fact that some study informants highlighted being ridiculed as a likely consequence of idea sharing, building competences for appropriately receiving ideas appears critical. Extending the notion that peers and managers are important for shaping proactivity (De Stobbeleir et al., 2020), our research findings invite executive consideration of whether—and why—organization members with innovative ideas will avoid or rather approach peers versus supervisors. To increase early-stage idea sharing, managers can then stimulate peer-to-peer or supervisor-subordinate relations. Furthermore, managers can strengthen norms governing idea receiving and train organization members to respond appropriately. The latter interventions will not necessarily reduce pre-screening as such but can improve its quality

as a sorting mechanism. Ideally, executives will also reflect on how their own standards and convictions contribute to shaping ideas' journeys in their organization and—as suggested by our study informants—stimulate positive change by revising their own behaviour.

5.3 | Limitations

This study relied on abductive theory building, which involved producing a plausible and consistent explanation for the patterns uncovered through our analysis of empirical data. It is, however, important to not confuse this effort with traditional theory testing. We leave if for future research to further explore and refine the dynamics we propose by means of different research designs. Additionally, although our Chinese study context is highly relevant considering the focus on hierarchical governance, we encourage future research to extend and more firmly establish the boundary conditions of our theorizing by exploring idea sharing and pre-screening in different research contexts—including but not limited to flatter organizations in other parts of the world. Furthermore, we purposefully utilized organization members who were also MBA students. This ensured a basic level of understanding concerning management and organizational behaviour and likely produced more detailed cognitive maps pertaining to this domain of expertise. Future work should consider to involve informants also with other education levels in order to better represent their cognitions relevant for idea sharing.

While ensuring that study informants feel safe to share their views remains important, another task left for future work is to more systematically capture information about organizations' turnover, revenues, number of employees, and human resource practices alongside information allowing inferences about idea sharing behaviour. Doing so might allow for better comparisons across organizations and help uncover additional predictors of various idea sharing patterns. Relatedly, our study left it up to informants to imagine specific innovative ideas as a basis for their answers, and this prevented us from directly checking for correlations between certain types of ideas and certain ways of sharing. Future research could employ different research designs to uncover such correlations. Paying attention to how ideas might change as they come into contact with different idea receivers seems promising in this regard.

5.4 | Future outlook

One particularly interesting avenue for future research concerns further exploration of what types of ideas are more likely to make it through the pre-screening process in the context of hierarchy. For example, our work allows for the speculation that radically new ideas might get quickly filtered out unless they have been pre-validated via peers. The assumed timeline of implementation might matter as well; peers might generally be more supportive than supervisors of path breaking ideas if those ideas can only be realized in the longer run—or if those ideas have the potential to disturb the current power balance in their favour (Sligte et al., 2011). Supervisors, on the other hand, may prefer ideas for incremental improvements that lead to short-term efficiency gains without invoking unfavourable shifts in the current power balance. If the latter kind of ideas are first taken to peers, by contrast, the proactive employee might risk retaliation if the colleagues foresee potential short-term negative impacts on their own work and job security.

We also encourage research that further explains variation in how ideas come to be shared in the context of hierarchy. Our analysis already uncovered that informants who envisioned sharing first with peers appeared to be relatively less oriented towards extrinsic rewards and formal punishment than those focused on first aligning with supervisors. Future studies could utilize experimental research designs such as vignette studies (e.g., Zhang et al., 2021) to tap further into potential interaction effects between factors pertaining to the work environment, individual motivational dispositions, and the tendency to pre-screen ideas starting with supervisors versus peers. Overall, we echo calls for more research that goes beyond studying only observable proactive behaviours and considers proactivity as a goal directed and dynamic process (Vough et al., 2017; Wu & Parker, 2011).

Future work should continue to employ alternative theoretical lenses and explore new methodologies; this could not only produce new insights and better explanations but also nuance common underlying assumptions about proactive organizational behaviour. For example, our study's findings are in line with the fundamental view that individual self-determination is a basic motivational driver for proactivity (Strauss & Parker, 2014) and that people will consider both positive and negative consequences of certain actions and seek to minimize risks when possible (see Cropanzano et al., 2017). Yet, our work invites a slight reconceptualization of how expectations predict proactive organizational behaviour, in that individuals may change their action repertoires relevant for idea sharing after forming initial expectations of risks and rewards. Thus, an individual's negative "starting expectancy" pertaining to idea sharing might not at all block them from sharing their ideas as such, but rather inform further tactical considerations that make visible alternative and less risky sharing paths. We encourage future work to further unpack the process through which individuals form and update their expectations relevant for proactively sharing their ideas—in hierarchical as well as in flatter organizational contexts.

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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ENDNOTES

[1] Our coding approach is similar to the one attributed to Dennis A. Gioia in the following respects: (1) We started with informant-centric terms, (2) we organized those terms into higher-order and more theory-oriented themes, (3) we used a "data structure" (see Figure 1) to depict and help make sense of our findings, (4) we sought to understand dynamic relations between the higher-order concepts, and (5) we went back to the literature to refine the articulation of the emergent concepts and insights. We did not develop a dynamic grounded theory model (see Gioia et al., 2013) but engaged in verbal theorizing of the key dynamics at play (but see illustration in Figure 3).

[2] For example, all informants implied that formal approval was required to realize their idea. On average, informants revealed through their answers that their innovative ideas would have to pass through 2,5 hierarchical levels, or sharing steps, before being made subject to a formal implementation decision.

[3] One informant did not answer task 1, whereas four informants did not produce answers for task 2.

[4] The domains reflected the three different tasks given to informants.

[5] We are thankful to a reviewer for suggesting this label and pointing us to the notion of informal screening.

REFERENCES

Adler, P. S. (2001). Market, hierarchy, and trust: The knowledge economy and the future of capitalism. *Organization Science*, *12*(2), 215–234. https://doi.org/10.1287/orsc.12.2.215.10117

Ahmed, P. K. (1998). Culture and climate for innovation. *European Journal of Innovation Management*, *1*, 30–43. https://doi.org/10.1108/14601069810199131

Alencar, E. M. S., & Bruno-Faria, M. F. (1997). Characteristics of on organizational environment which stimulate and inhibit creativity. *The Journal of Creative Behavior*, *31*, 271–281. https://doi.org/10.1002/j.2162-6057.1997.tb00799.x

Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of Management Journal*, *39*(5), 1154–1184. https://doi.org/10.2307/256995

Anderson, N., Potočnik, K., & Zhou, J. (2014). Innovation and creativity in organizations a state-of-the-science review, prospective commentary, and guiding framework. *Journal of Management*, *40*, 1297–1333. https://doi.org/10.1177/0149206314527128

Ashford, S. J., & Black, J. S. (1996). Proactivity during organizational entry: The role of desire for control. *Journal of Applied Psychology*, *81*(2), 199–214. https://doi.org/10.1037/0021-9010.81.2.199

Ashford, S. J., Rothbard, N. P., Piderit, S. K., & Dutton, J. E. (1998). Out on a limb: The role of context and impression management in selling gender-equity issues. *Administrative Science Quarterly*, *43*, 23–57. https://doi.org/10.2307/2393590

Axelrod, R. (1976). The cognitive mapping approach to decision making. *Structure of Decision*, *1*, 221–250.

Axtell, C. M., Holman, D. J., Unsworth, K. L., Wall, T. D., Waterson, P. E., & Harrington, E. (2000). Shopfloor innovation: Facilitating the suggestion and implementation of ideas. *Journal of Occupational and Organizational Psychology*, *73*, 265–285. https://doi.org/10.1348/096317900167029

Baer, M. (2012). Putting creativity to work: The implementation of creative ideas in organizations. *Academy of Management Journal*, *55*(5), 1102–1119. https://doi.org/10.5465/amj.2009.0470

Barney, J. B., Foss, N. J., & Lyngsie, J. (2018). The role of senior management in opportunity formation: Direct involvement or reactive selection? *Strategic Management Journal*, *39*, 1325–1349. https://doi.org/10.1002/smj.2768

Beretta, M. (2019). Idea selection in web-enabled ideation systems. *Journal of Product Innovation Management*, *36*(1), 5–23. https://doi.org/10.1111/jpim.12439

Beretta, M., Frederiksen, L., Wallin, M., & Kulikovskaja, V. (2023). Why and how firms implement internal crowdsourcing platforms. *IEEE Transactions on Engineering Management*, *70*(9), 3036–3049.

Beretta, M., & Søndergaard, H. A. (2021). Employee behaviours beyond innovators in internal crowdsourcing: What do employees do in internal crowdsourcing, if not innovating, and why? *Creativity and Innovation Management*, *30*(3), 542–562. https://doi.org/10.1111/caim.12449

Bidmon, C. M., & Boe-Lillegraven, S. (2019). Now, switch! Individuals' responses to imposed switches between exploration and exploitation. *Long Range Planning*, *53*, 101928.

Bindl, U. K. (2019). Work-related proactivity through the lens of narrative: Investigating emotional journeys in the process of making things happen. *Human Relations*, *72*(4), 615–645. https://doi.org/10.1177/0018726718778086

Bindl, U. K., & Parker, S. K. (2010). Feeling good and performing well? Psychological engagement and positive behaviors at work. In *Handbook of employee engagement: Perspectives, issues, research and practice* (pp. 385–398). Edward Elgar Publishing. https://doi.org/10.4337/9781849806374.00043

Birkinshaw, J., Bouquet, C., & Barsoux, J. L. (2011). The 5 myths of innovation. *MIT Sloan Management Review*, *52*(2), 43–50.

Björk, J., Boccardelli, P., & Magnusson, M. (2010). Ideation capabilities for continuous innovation. *Creativity and Innovation Management*, *19*(4), 385–396. https://doi.org/10.1111/j.1467-8691.2010.00581.x

Bougon, M., Weick, K., & Binkhorst, D. (1977). Cognition in organizations: An analysis of the Utrecht Jazz Orchestra. *Administrative Science Quarterly*, *22*, 606–639. https://doi.org/10.2307/2392403

Campbell, D. J. (2000). The proactive employee: Managing workplace initiative. *Academy of Management Executive*, *14*, 52–66.

Colombelli, A., Paolucci, E., & Ughetto, E. (2019). Hierarchical and relational governance and the life cycle of entrepreneurial ecosystems. *Small Business Economics*, *52*(2), 505–521. https://doi.org/10.1007/s11187-017-9957-4

Cropanzano, R., Anthony, E. L., Daniels, S. R., & Hall, A. V. (2017). Social exchange theory: A critical review with theoretical remedies. *Academy of Management Annals*, *11*(1), 479–516. https://doi.org/10.5465/annals.2015.0099

D'adderio, L. (2008). The performativity of routines: Theorising the influence of artefacts and distributed agencies on routines dynamics.

Research Policy, *37*(5), 769–789. https://doi.org/10.1016/j.respol.2007.12.012

D'Adderio, L. (2011). Artifacts at the centre of routines: Performing the material turn in routines theory. *Journal of Institutional Economics*, *7*(2), 197–230. https://doi.org/10.1017/S174413741000024X

Danner-Schröder, A. (2021). Without actors, there is no action: How interpersonal interactions help to explain routine dynamics. *Review of Managerial Science*, *15*(7), 1913–1936. https://doi.org/10.1007/s11846-020-00408-x

De Spiegelaere, S., Van Gyes, G., & Van Hootegem, G. (2016). Not all autonomy is the same. Different dimensions of job autonomy and their relation to work engagement & innovative work behavior. *Human Factors and Ergonomics in Manufacturing & Service Industries*, *26*(4), 515–527. https://doi.org/10.1002/hfm.20666

De Stobbeleir, K., Ashford, S., & Zhang, C. (2020). Shifting focus: Antecedents and outcomes of proactive feedback seeking from peers. *Human Relations*, *73*(3), 303–325. https://doi.org/10.1177/0018726719828448

De Stobbeleir, K. E., Ashford, S. J., & Buyens, D. (2011). Self-regulation of creativity at work: The role of feedback-seeking behavior in creative performance. *Academy of Management Journal*, *54*(4), 811–831. https://doi.org/10.5465/amj.2011.64870144

Dittrich, K., & Seidl, D. (2018). Emerging intentionality in routine dynamics: A pragmatist view. *Academy of Management Journal*, *61*(1), 111–138. https://doi.org/10.5465/amj.2015.0010

Donald, W. E. (Ed.). (2023). *Handbook of research on sustainable career ecosystems for university students and graduates*. IGI Global. https://doi.org/10.4018/978-1-6684-7442-6

Eisenhardt, K. M. (1989). Making fast strategic decisions in high-velocity environments. *Academy of Management Journal*, *32*(3), 543–576. https://doi.org/10.2307/256434

Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, *50*(1), 25–32. https://doi.org/10.5465/amj.2007.24160888

Elert, N., & Stenkula, M. (2022). Intrapreneurship: Productive and non-productive. *Entrepreneurship Theory and Practice*, *46*(5), 1423–1439. https://doi.org/10.1177/1042258720964181

Engen, M., & Magnusson, P. (2018). Casting for service innovation: The roles of frontline employees. *Creativity and Innovation Management*, *27*(3), 255–269. https://doi.org/10.1111/caim.12263

Farh, J. L., Hackett, R. D., & Liang, J. (2007). Individual-level cultural values as moderators of perceived organizational support–employee outcome relationships in China: Comparing the effects of power distance and traditionality. *Academy of Management Journal*, *50*(3), 715–729. https://doi.org/10.5465/amj.2007.25530866

Fay, D., Strauss, K., Schwake, C., & Urbach, T. (2023). Creating meaning by taking initiative: Proactive work behavior fosters work meaningfulness. *Applied Psychology*, *72*(2), 506–534. https://doi.org/10.1111/apps.12385

Feldman, M. S. (2000). Organizational routines as a source of continuous change. *Organization Science*, *11*(6), 611–629. https://doi.org/10.1287/orsc.11.6.611.12529

Feldman, M. S., D'Adderio, L., Pentland, B. T., Dittrich, K., Rerup, C., & Seidl, D. (Eds.). (2021). *Cambridge handbook of routine dynamics*. Cambridge University Press. https://doi.org/10.1017/9781108993340

Feldman, M. S., & Pentland, B. T. (2003). Reconceptualizing organizational routines as a source of flexibility and change. *Administrative Science Quarterly*, *48*(1), 94–118. https://doi.org/10.2307/3556620

Felin, T. (2016). When strategy walks out the door. *MIT Sloan Management Review*, *58*(1), 95.

Foss, N. J., & Hallberg, N. L. (2016). Changing assumptions and progressive change in theories of strategic organization. *Strategic Organization*, *15*, 410–422.

Fuchs, C., Sting, F. J., Schlickel, M., & Alexy, O. (2019). The ideator's bias: How identity-induced self-efficacy drives overestimation in employee-driven process innovation. *Academy of Management Journal*, *62*(5), 1498–1522. https://doi.org/10.5465/amj.2017.0438

Fuller, J. B. Jr., Hester, K., & Cox, S. S. (2010). Proactive personality and job performance: Exploring job autonomy as a moderator. *Journal of Managerial Issues*, *22*, 35–51.

Gao, A., & Jiang, J. (2019). Perceived empowering leadership, harmonious passion, and employee voice: The moderating role of job autonomy. *Frontiers in Psychology*, *10*, 1484. https://doi.org/10.3389/fpsyg.2019.01484

Gilson, L. L., Lim, H. S., D'innocenzo, L., & Moye, N. (2012). One size does not fit all: Managing radical and incremental creativity. *The Journal of Creative Behavior*, *46*, 168–191. https://doi.org/10.1002/jocb.12

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational Research Methods*, *16*(1), 15–31. https://doi.org/10.1177/1094428112452151

Hamel, G. (2011). First, let's fire all the managers. *Harvard Business Review*, *89*, 48–60.

Hofstede, G., Hofstede, G. J., & Minkov, M. (1997). *Cultures and organizations*. Mcgraw Hill.

Howard-Grenville, J. A. (2005). The persistence of flexible organizational routines: The role of agency and organizational context. *Organization Science*, *16*(6), 618–636. https://doi.org/10.1287/orsc.1050.0150

Høyrup, S. (2012). Employee-driven innovation: a new phenomenon, concept and mode of innovation. In *Employee-driven innovation* (pp. 3–33). Palgrave Macmillan UK. https://doi.org/10.1057/9781137014764_1

Kahn, K. B., Kay, S. E., Slotegraaf, R., & Uban, S. (2013). *The PDMA handbook of new product development*. Wiley Online Library.

Kaplan, S. (2011). Research in cognition and strategy: Reflections on two decades of progress and a look to the future. *Journal of Management Studies*, *48*, 665–695. https://doi.org/10.1111/j.1467-6486.2010.00983.x

Kastelle, T. (2013). Hierarchy is overrated. *Harvard Business Review*, *20*, 1–4.

Kesting, P., & Ulhøi, J. P. (2010). Employee-driven innovation: Extending the license to foster innovation. *Management Decision*, *48*, 65–84. https://doi.org/10.1108/00251741011014463

Keum, D. D., & See, K. E. (2017). The influence of hierarchy on idea generation and selection in the innovation process. *Organization Science*, *28*(4), 653–669. https://doi.org/10.1287/orsc.2017.1142

Kim, J., MacDuffie, J. P., & Pil, F. K. (2010). Employee voice and organizational performance: Team versus representative influence. *Human Relations*, *63*(3), 371–394. https://doi.org/10.1177/0018726709348936

Kremser, W., Pentland, B. T., & Brunswicker, S. (2019). Interdependence within and between routines: A performative perspective. In *Routine dynamics in action: Replication and transformation*. Emerald Publishing Limited. https://doi.org/10.1108/S0733-558X20190000061005

Laukkanen, M. (2012). Comparative causal mapping and CMAP3 software in qualitative studies. *Forum: Qualitative Social Research*, *13*(2), 1846.

Laukkanen, M., & Eriksson, P. (2013). New designs and software for cognitive causal mapping. *Qualitative Research in Organizations and Management: An International Journal*, *8*, 122–147. https://doi.org/10.1108/QROM-08-2011-1003

Markóczy, L. (1997). Measuring beliefs: Accept no substitutes. *Academy of Management Journal*, *40*, 1228–1242. https://doi.org/10.2307/256934

Martins, E., & Terblanche, F. (2003). Building organisational culture that stimulates creativity and innovation. *European Journal of Innovation Management*, *6*, 64–74. https://doi.org/10.1108/14601060310456337

Meyer, E. (2017). Being the boss in Brussels, Boston, and Beijing. *Harvard Business Review*, *95*(4), 70–77.

Morrison, E. W. (2014). Employee voice and silence. *The Annual Review of Organizational Psychology and Organizational Behavior*, *1*(1), 173–197. https://doi.org/10.1146/annurev-orgpsych-031413-091328

Morrison, E. W., & Phelps, C. C. (1999). Taking charge at work: Extrarole efforts to initiate workplace change. *Academy of Management Journal*, *42*(4), 403–419. https://doi.org/10.2307/257011

Mumford, D. (2000). Managing creative people strategies and tactics for innovation. *Human Resource Management Review*, *10*(3), 313–351. https://doi.org/10.1016/S1053-4822(99)00043-1

Neessen, P., Caniëls, M. C., Vos, B., & De Jong, J. P. (2019). The intrapreneurial employee: Toward an integrated model of intrapreneurship and research agenda. *International Entrepreneurship and Management Journal*, *15*(2), 545–571. https://doi.org/10.1007/s11365-018-0552-1

Nonaka, I. (1991). The knowledge-creating company. *Harvard Business Review*, *85*, 162.

Oldham, G. R. (2003). Stimulating and supporting creativity in organizations. In *Managing knowledge for sustained competitive advantage* (pp. 243–273). John Wiley & Sons.

Orth, M., & Volmer, J. (2017). Daily within-person effects of job autonomy and work engagement on innovative behaviour: The cross-level moderating role of creative self-efficacy. *European Journal of Work and Organizational Psychology*, *26*(4), 601–612. https://doi.org/10.1080/1359432X.2017.1332042

Owens, D. A. (2011). *Creative people must be stopped: 6 ways we kill innovation (without even trying)*. John Wiley & Sons.

Parker, S. K., & Collins, C. G. (2010). Taking stock: Integrating and differentiating multiple proactive behaviors. *Journal of Management*, *36*(3), 633–662. https://doi.org/10.1177/0149206308321554

Parker, S. K., Wall, T. D., & Jackson, P. R. (1997). "That's not my job": Developing flexible employee work orientations. *Academy of Management Journal*, *40*(4), 899–929. https://doi.org/10.2307/256952

Paulus, P. B., Dzindolet, M., & Kohn, N. W. (2012). Collaborative creativity—Group creativity and team innovation. In *Handbook of organizational creativity* (pp. 327–357). Academic Press. https://doi.org/10.1016/B978-0-12-374714-3.00014-8

Perry-Smith, J. E., & Mannucci, P. V. (2017). From creativity to innovation: The social network drivers of the four phases of the idea journey. *Academy of Management Review*, *42*(1), 53–79. https://doi.org/10.5465/amr.2014.0462

Renkema, M., Meijerink, J., & Bondarouk, T. (2022). Routes for employee-driven innovation: How HRM supports the emergence of innovation in a formalized context. *The International Journal of Human Resource Management*, *33*, 1–35. https://doi.org/10.1080/09585192.2021.1913625

Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal*, *37*(3), 580–607. https://doi.org/10.2307/256701

Segarra-Ciprés, M., Escrig-Tena, A., & García-Juan, B. (2019). Employees' proactive behavior and innovation performance: Examining the moderating role of informal and formal controls. *European Journal of Innovation Management*, *22*, 866–888. https://doi.org/10.1108/EJIM-02-2019-0041

Shah, S. K., & Corley, K. G. (2006). Building better theory by bridging the quantitative-qualitative divide. *Journal of Management Studies*, *43*, 1821–1835. https://doi.org/10.1111/j.1467-6486.2006.00662.x

Sligte, D. J., De Dreu, C. K. W., & Nijstad, B. A. (2011). Power, stability of power, and creativity. *Journal of Experimental Social Psychology*, *47*, 891–897. https://doi.org/10.1016/j.jesp.2011.03.009

Sonenshein, S. (2016). Routines and creativity: From dualism to duality. *Organization Science*, *27*(3), 739–758. https://doi.org/10.1287/orsc.2016.1044

Steiber, A., & Alänge, S. (2013). A corporate system for continuous innovation: The case of Google Inc. *European Journal of Innovation Management*, *16*, 243–264. https://doi.org/10.1108/14601061311324566

Strauss, K., & Parker, S. K. (2014). Effective and sustained proactivity in the workplace: A self-determination theory perspective. In M. Gagné (Ed.), *Oxford library of psychology. The Oxford handbook of work engagement, motivation, and self-determination theory* (pp. 50–71). Oxford University Press.

Sukhov, A., Sihvonen, A., Netz, J., Magnusson, P., & Olsson, L. E. (2021). How experts screen ideas: The complex interplay of intuition, analysis and sensemaking. *Journal of Product Innovation Management*, *38*(2), 248–270. https://doi.org/10.1111/jpim.12559

Swan, J. A. (1995). Exploring knowledge and cognitions in decisions about technological innovation: Mapping managerial cognitions. *Human Relations*, *48*(11), 1241–1270. https://doi.org/10.1177/001872679504801101

Tidd, J., & Bessant, J. R. (2020). *Managing innovation: Integrating technological, market and organizational change*. John Wiley & Sons.

Timmermans, S., & Tavory, I. (2022). *Data analysis in qualitative research: Theorizing with abductive analysis*. University of Chicago Press. https://doi.org/10.7208/chicago/9780226817729.001.0001

Twemlow, M., Tims, M., & Khapova, S. N. (2022). A process model of peer reactions to team member proactivity. *Human Relations*, *76*, 1317–1351.

Ulrich, F., Mengiste, S. A., & Müller, S. D. (2015). Informal evaluation and institutionalization of neoteric technology ideas: The case of two Danish organizations. *Communications of the Association for Information Systems*, *37*(1), 47. https://doi.org/10.17705/1CAIS.03747

Van Dyne, L., & LePine, J. A. (1998). Helping and voice extra-role behaviors: Evidence of construct and predictive validity. *Academy of Management Journal*, *41*(1), 108–119. https://doi.org/10.2307/256902

van Essen, H. J., de Leede, J., & Bondarouk, T. (2022). Innovation energy: The stimulus converting employees' innovation properties into innovative work behaviour. *Creativity and Innovation Management*, *31*(2), 210–222. https://doi.org/10.1111/caim.12490

Vough, H. C., Bindl, U. K., & Parker, S. K. (2017). Proactivity routines: The role of social processes in how employees self-initiate change. *Human Relations*, *70*(10), 1191–1216. https://doi.org/10.1177/0018726716686819

Vuculescu, O., Beretta, M., & Bergenholtz, C. (2021). The IKEA effect in collective problem-solving: When individuals prioritize their own solutions. *Creativity and Innovation Management*, *30*(1), 116–128. https://doi.org/10.1111/caim.12416

Wu, C. H., & Parker, S. K. (2011). Proactivity in the work place: Looking back and looking forward. In *The Oxford handbook of positive organizational scholarship* (pp. 84–96). Oxford University Press.

Zhang, M. J., Law, K. S., & Wang, L. (2021). The risks and benefits of initiating change at work: Social consequences for proactive employees who take charge. *Personnel Psychology*, *74*(4), 721–750. https://doi.org/10.1111/peps.12423

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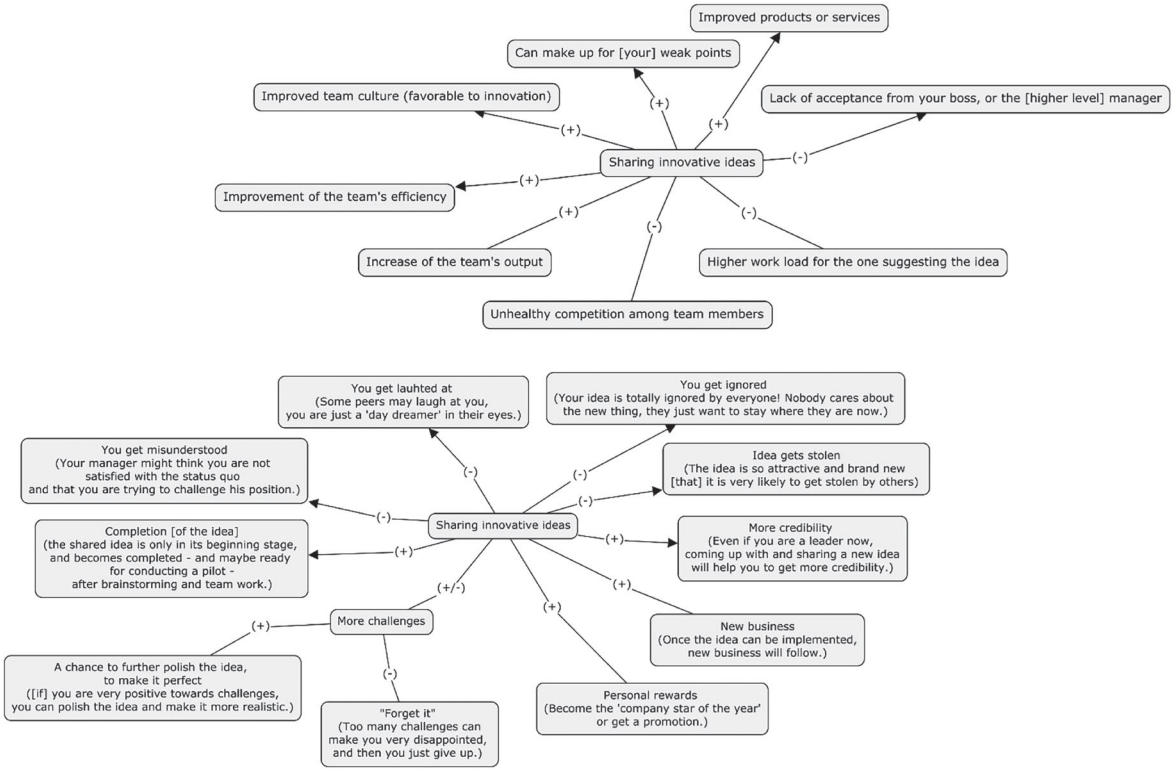
APPENDIX A

The above illustrations from the program Cmap Tools exemplify intermediate individual level cognitive maps constructed based on the raw data from task 1. As evident from these maps, informants had the freedom to elaborate on the causal links (see the parenthesis in the most left map) but were not required to do so. To aid further comparison of the maps and detect general patterns, we consolidated terms used by the informants into more general codes and themes (see Figure 2 included in the paper). In the program CMAP3, which is based on text-based entries, we combined the causal links identified from task 1 with causal relationships revealed by informants' answers to tasks 2 and 3. As illustrated by the below image reflecting insights from task 3, our analysis and late-stage identification of analytical themes also benefited from using Camp Tools to create visual representations of general domain maps.



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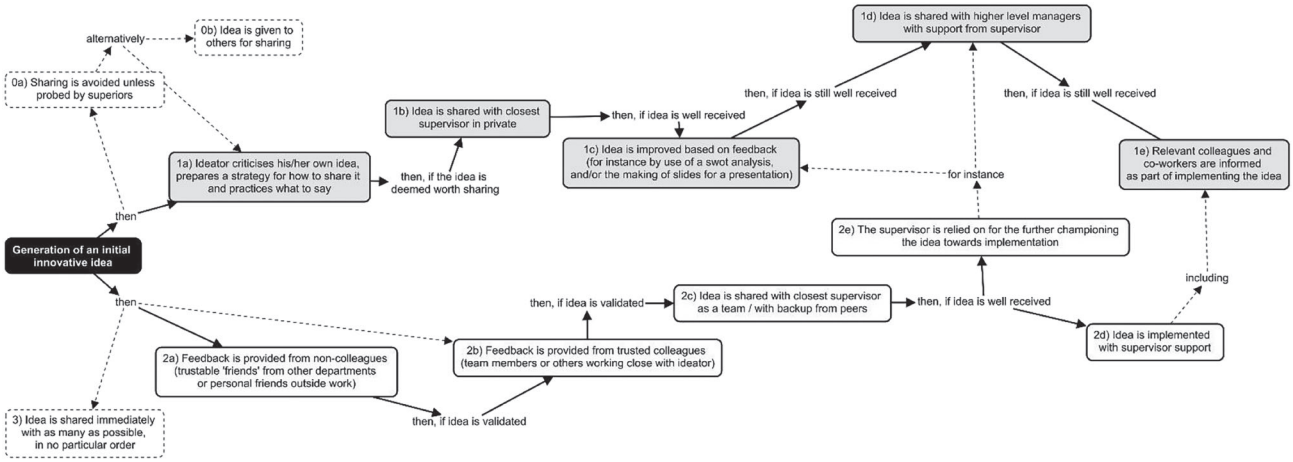

FIGURE A1 Examples of cognitive maps.