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A microfoundational perspective of organizational ambidexterity: Critical review and research directions

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Introduction

Scholars have emphasized an organization's ability to simultaneously pursue exploratory and exploitative activities - referred to as organizational ambidexterity - as critical to ensuring a sustainable competitive advantage (He and Wong, 2004; O'Reilly and Tushman, 2008; Raisch and Birkinshaw, 2008). Accumulated empirical evidence largely confirms that organizational ambidexterity may not only lead to improved short-term performance but also heighten long-term survival rates in dynamically-competitive environments (Junni et al., 2013). This is because ambidextrous firms are better than others at responding to disruptive new business models and emerging technologies (Birkinshaw et al., 2016; Hill and Birkinshaw, 2014).

Yet the coexistence of fundamentally different organizational competences, architectures, and processes also creates paradoxical challenges (Jansen et al., 2006; Smith, 2014; Smith and Tushman, 2005). Although some firms, such as Alibaba, Amazon, and Lego, have achieved major performance improvements when refining their core businesses while capturing new growth opportunities, others, such as General Electric, Kodak, and Nokia, have experienced difficulties in realizing sustained value through hosting contradictory businesses. For instance, while IBM

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succeeded in transitioning from hardware to software, and subsequently from software to services (Tushman et al., 2010), Xerox lacked such a dynamic capability to better sense disruptive threats, seize new opportunities, and reconfigure its operations (Heracleous et al., 2017).

Given these observed differences, much of the extant organizational ambidexterity literature has focused on advancing our understanding about *how* organizations balance seemingly contradictory demands (Nosella et al., 2012). First, scholars have explicated different drivers or antecedents of organizational ambidexterity (Raisch and Birkinshaw, 2008) by indicating how senior leadership team attributes (Garcia-Granero et al., 2018; Jansen et al., 2008), organizational structures (Jansen et al., 2009; O'Reilly and Tushman, 2004), contextual elements (Gibson and Birkinshaw, 2004, Zimmermann et al. 2018), and human resource systems (Patel et al., 2013, Prieto and Santana, 2012) support the simultaneous pursuit of exploration and exploitation.

Second, research has prescribed spatial, temporal, and contextual approaches for resolving tensions between exploration and exploitation at different levels of analysis (Lavie et al., 2010; Raisch et al., 2009). Organizations resolve tensions by structurally separating exploration from exploitation across different units (Aoki and Wilhelm, 2017; Jansen et al., 2009) or by engaging in (usually exploratory) joint ventures, alliances, and acquisitions to complement the (typically exploitative) internal activities (Lavie and Rosenkopf, 2006; Wassmer et al., 2017). Alternatively, organizations may oscillate between organizational solutions that promote exploration or exploitation respectively (Boumgarden et al., 2012), or apply contextual approaches and support their employees to deal with the exploration-exploitation paradox at the individual level (Gibson and Birkinshaw, 2004). More recently, scholars have also shown how organizations combine these solutions simultaneously or sequentially (Luger et al., 2018; Ossenbrink et al., 2019).

Third, scholars have criticized ambidexterity research's rather static nature while demonstrating the value of a process perspective of ambidexterity (Raisch and Zimmermann, 2017, Zimmermann et al., 2018), focusing on exploration and exploitation's mutually reinforcing nature over time (Andriopoulos and Lewis, 2009), outlining the multilevel process through which organizations adopt an ambidextrous orientation (Zimmermann et al., 2015), showing that organizations need to adapt their exploration-exploitation balance to changing environmental conditions to sustain their performance (Luger et al., 2018), and describing the triggers, conditions, and interaction patterns that allow exploratory units to scale alongside exploitative operations in ambidextrous firms (Raisch and Tushman, 2016).

Taken collectively, decades of research have shown that organizational ambidexterity is both feasible and beneficial for organizations, yet the accumulated literature still tells us relatively little about how organizational ambidexterity may emerge and evolve when organizational members, individually and collectively, enact paradoxical demands by reducing inertial tensions and taking advantage of pursuing exploration and exploitation in their daily business activities (Mom et al., 2019; Raisch et al., 2009). While scholars have conceptualized organizational ambidexterity as a multilevel phenomenon (Jansen et al., 2009; O'Reilly and Tushman, 2013; Simsek, 2009), a significant gap remains regarding our understanding about the *microfoundations of organizational ambidexterity*, or the underlying individual and collective actions that are required for balancing exploration and exploitation activities and aligning them with changing internal and external conditions (Birkinshaw and Gupta, 2013; Nosella et al., 2012).

This special issue of *Long Range Planning* was devised specifically to explore the origins of ambidexterity at the micro level from different theoretical and practical perspectives, to re-examine its complexity, and to apply methodologies suited to analyzing this phenomenon in domestic and

international settings. In this introductory editorial, we offer a critical review of the ambidexterity literature's microfoundations and advance future research directions. We also explain how the papers selected for this special issue contribute to the further advancement of the field.

A microfoundational perspective of organizational ambidexterity

Organizational ambidexterity does not merely emerge from the concurrent pursuit of exploratory and exploitative activities but rather from the ways in which such activities or behaviors are effectively mobilized and integrated to generate new combinations within organizations (Jansen et al., 2009; O'Reilly and Tushman, 2008). Scholars have argued that the emergence of organizational ambidexterity therefore requires collective patterns of interaction that generate and connect previously unconnected ideas and knowledge in new ways (O'Reilly and Tushman, 2013). Ambidexterity is therefore assumed to be enacted across multiple organizational levels (Kassotaki et al., 2019), which motivated scholars to highlight the need for multi-level analyses (Jansen et al., 2012; Raisch et al., 2009). These analyses could provide rich insight into how senior leadership designs organizational contexts, structural solutions, planning and reward systems, and decision-making processes, which in turn affect individual behavioral patterns, values, and identities within ambidextrous organizations (Birkinshaw and Gupta, 2013; Gupta et al., 2006). By disaggregating the processes, practices, and routines that create the capacity to orchestrate and combine exploration and exploitation from the organizational to the individual level, a multilevel framework could offer unique insights about how ambidexity as an organizational-level dynamic capability can be systematically built.

Microfoundational thinking is drawing significant and increasing scholarly attention in the strategy realm (Felin et al., 2012, 2015; Foss and Pederson, 2014) and has usually included

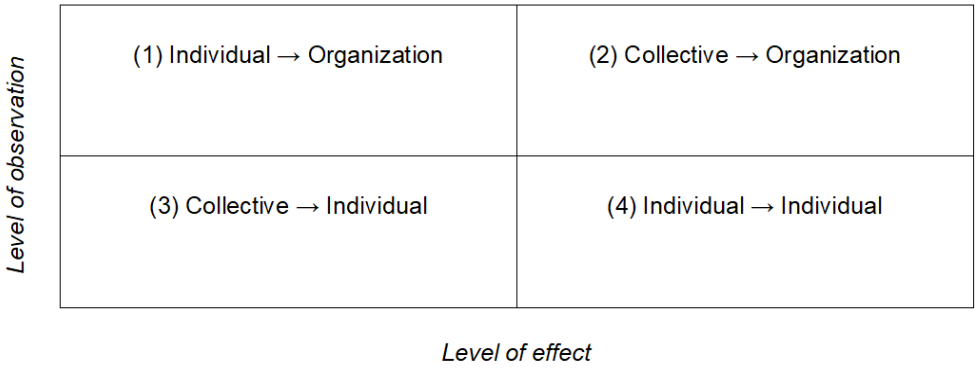
individual-level actors, their capabilities and behaviors, and their emergent collective interactions to explain higher-level concepts (Felin and Foss, 2005). Scholars have applied a microfoundational perspective to a wide variety of organizational phenomena, such as routines (Winter, 2013) and dynamic capabilities (Salvato and Vassolo, 2017), as well as more recently to organizational ambidexterity (Martin et al., 2019).

A microfoundational perspective of organizational ambidexterity suggests that the individual ability to deal with paradoxical demands is the building block for its emergence (Raisch et al., 2009). Organizational ambidexterity is created by bringing together different but complementary ways and approaches through which operational managers embed their exploratory and exploitative behaviors in organization-wide innovation streams and decision-making processes (Zimmermann et al., 2018). Moreover, research has shown that senior executives' normative influence and interactions between hierarchical levels jointly form organizational members' perceptions and behaviors, which also implies that these actors become more homogeneous in how they combine exploration and exploitation (Fulmer and Ostroff, 2015). The emergence of ambidexterity is therefore shaped by the opportunities given to organizational members to interact with senior executives, incorporate their exploratory and exploitative behaviors into collective systems, and to integrate them across product and market areas within the organization (Kozlowski and Klein, 2000; Ployhart and Moliterno, 2011).

Classifying research on the microfoundations of ambidexterity

We advance a quadripartite approach to structuring and critically reviewing the existing microfoundations of ambidexterity literature (Figure 1).

Figure 1 Classifying the microfoundations of ambidexterity research



We use a 2x2 matrix with two dimensions: the level at which the phenomenon is observed (which can be either individual or collective); and the level at which the outcome or effects are experienced (which can be either the organization or the individual). That leads to four types of microfoundational research on ambidexterity, which we label: (1) micro-level drivers of organizational ambidexterity (individual → organization); (2) social interaction's role in the emergence of organizational ambidexterity (collective → organization); (3) the enabling role of organizational aspects for individual-level ambidexterity (collective → individual); and (4) micro-level drivers of individual-level ambidexterity (individual → individual). We acknowledge that (1) and (2) are the heartland of the broader microfoundations debate. However, we also argue that individual ambidexterity is required for organizational ambidexterity to emerge, and we must therefore extend the focus to individual and organizational drivers of individual ambidexterity in order to really understand organizational ambidexterity's microfoundations over time.

(1) Micro-level drivers of organizational ambidexterity

The first research stream explores the roles of individual cognitions and behaviors as foundations for organizational ambidexterity. In its cognitive sub-stream, the initial debate emerged around leaders' paradoxical cognitive frames (Andriopoulos and Lewis, 2009; Raisch et al., 2009; Smith and Tushman, 2005). Building on paradox theory (Schad et al., 2016), this research argues that ambidexterity requires leaders with the ability to cognitively juxtapose contradictions in ways that allow them to embrace rather than deny or avoid these tensions. Lin and McDonough (2014) provide empirical evidence that Strategic Business Unit (SBU) managers' paradoxical cognitive frames foster organizational ambidexterity. Subsequent studies broadened the focus beyond cognition to also include motivational aspects. Kammerlander et al. (2015) show that CEO's regulatory focus, which refers to his or her deeply ingrained motivational goals, affects organizational ambidexterity. Mom et al. (2019) provide deeper insight on how operational managers' ability and motivation jointly influence ambidexterity. Moreover, researchers have extended the discussion of leaders' cognition to their information-processing. For example, Cao et al. (2010) find that a CEO's network extensiveness fosters organizational ambidexterity by facilitating the integration of complex information. Kiss et al. (2020) show that a CEO's cognitive flexibility is associated with higher levels of ambidexterity, since it allows for engaging in more effortful and persistent information search.

The behavioral sub-stream focuses on how leadership enables others to explore and exploit simultaneously. Initially, the discussion emerged around transformational leadership behaviors' (Bass and Avolio, 1994) role for organizational ambidexterity. Several studies provide empirical evidence that such behaviors promote ambidexterity (e.g., Jansen et al., 2008; Nemanich and Vera, 2009). Jansen et al. (2009) further show that both transformational and transactional leadership

behaviors enable ambidexterity in different environmental contexts. More recently, scholars have extended this discussion toward exploring leaders' day-to-day activities, which contributes to a more dynamic perspective of ambidexterity's individual-level foundations. Several studies show that leaders shift between complementary sets of leadership behaviors to enable exploration and exploitation activities over time (Havermans et al., 2015; Rosing et al., 2011; Turner et al., 2016). Zimmermann et al. (2018) find that frontline managers use configurational practices to constantly adapt and align organizational contexts, which allows their teams to cope with exploration-exploitation tensions in their daily business activities.

Collectively, this research provides rich insight into senior and frontline managers' cognitive and behavioral foundations for organizational ambidexterity. However, several important domains of inquiry require further research attention. First, prior studies have focused on leaders and their dual contributions through acting ambidextrously (Mom et al., 2019) and enabling others to do so (Nemanich and Vera, 2008). Much less is known about how organizational members who are not leaders deal with the ambidexterity challenge. Contextual ambidexterity (Gibson and Birkinshaw, 2004) relies on the assumption that *all* organizational members act ambidextrously. It would be important to learn more about their individual contributions. Second, prior studies have focused on either individuals' cognitive or behavioral drivers of ambidexterity. For example, Katou et al. (2020) find that leaders' social intelligence, which refers to their social awareness and relational abilities, fosters organizational ambidexterity. It is likely that this effect manifests itself through leadership behavior. We encourage future research linking microfoundations that are engrained in leaders and employees' personalities to their leadership and work behaviors. Finally, microfoundational research tends to be underdeveloped regarding the context in which individual behaviors take place (Felin et al., 2015). Prior research indicates that dependent on the type of

ambidexterity that organizations pursue, and the supporting architectures they create, different individual abilities and behaviors may be required (Birkinshaw et al., 2016; Kang and Snell, 2009). Future research should strive for individual-level studies of organizational ambidexterity's foundations that consider context more explicitly in their propositions.

(2) The role of social interaction in the emergence of organizational ambidexterity

The second stream of research explores the role of social interaction in the emergence of organizational ambidexterity. Scholars have underscored TMT behavioral integration's central role in successfully dealing with conflicting demands. Lubatkin et al. (2006) and Carmeli and Halevi (2009) proposed conceptual frameworks where TMT behavioral integration nurtures TMT behavioral complexity, which, in turn, enables organizational ambidexterity. In an empirical study, Halevi et al. (2015) show that TMT behavioral integration enables organizational ambidexterity and that it affects ambidexterity more strongly when the task environment is characterized by a high level of dynamism. Venugopal et al. (2020) found further evidence that TMT behavioral integration enhances organizational ambidexterity, which, in turn, also mediates the relationship between TMT behavioral integration and firm performance.

Extending research beyond TMT behavioral integration, Chen et al. (2019) explore TMT time horizon blending and propose that effective CEO temporal leadership will enhance the joint effects of TMT's time horizon composition and TMT diversity on organizational ambidexterity. This research has been followed by recent calls to better investigate ambidexterity's temporal dimension, for example, in the context of new ventures (Wang et al., 2019) and family-owned firms (Allison et al., 2019). Maclean et al. (2020) further criticized that the extant organizational ambidexterity literature did not adequately elucidate how top executives apply tension-alleviating

managerial initiatives or how they tackle the tension-induced contradictory processes in real time. Utilizing the polyphonic model of narrative strategizing, and proposing a cyclical model of attaining organizational ambidexterity through an evolving process, the authors demonstrate the significance of TMT reflexivity in crafting and communicating performative narratives.

TMT joint decision making has also received its due scholarly attention. Mihalache et al. (2014) explored how and when TMT shared leadership augments organizational ambidexterity by taking into account their decision-making comprehensiveness and conflict management style. Extending the view of the CEO-TMT interface, Fernández-Mesa et al. (2013) and Garcia-Granero et al. (2018) further postulate that CEO's charactericstics, team attributes, and their interactions play a pivotal role in SME's decision-making processes, and are conducive to the development of organizational ambidexterity. Unlike established firms, new ventures often do not possess much-needed resources and competences to become ambidextrous. However, prior research shows that entrepreneurial teams' transactive memory systems and their strategic partnerships can compensate for the lack of these resources and capabilities (Dai et al., 2017). While TMTs with well-honed transactive memory systems in technology-based SMEs are helpful in pursuing an ambidextrous orientation, the impact of transactive memory is also influenced by organizational experience and the TMT's functional background (Heavey and Simsek, 2017).

Lastly, departing from the traditional views of ambidexterity as a simultaneous pursuit of exploration and exploitation or the sequential alternation between these processes, Martin et al. (2017) introduced conflict in social interactions as a microfoundation of ambidexterity, highlighting the the supportive organizational context's criticality for fostering ambidextrous behavior, and contending that ambidexterity is a dynamic and conflict-laden phenomenon at the levels of individuals, units, and organizations.

Further study of the social interactions that enable organizational ambidexterity should overcome the prior literature's strong focus on CEOs and their TMTs to also consider broader social interactions across organizational levels. In particular, the contextual perspective of ambidexterity (Gibson and Birkinshaw, 2004) suggests that exchanges between lower-level managers and employees are essential for organizational ambidexterity to arise and evolve over time (Zimmermann et al., 2018). Furthermore, research on structural ambidexterity has increasingly highlighted the role of lower-level integration activities (Jansen et al., 2009), which directs research attention to the associated social interactions. Finally, future research may investigate the interactive effects of employee and leader characteristics with organizational structure, culture, and social relationships, on organizational ambidexterity (Junni et al., 2015).

(3) The enabling role of organizational aspects for individual ambidexterity

Although scholars have traditionally argued that exploration and exploitation are competing organizational activities (Duncan, 1976; Jansen et al., 2009; Tushman and O'Reilly, 1996) that may only be effectively pursued across organizational contexts by structural separation or across time by temporal separation (Gupta et al., 2006; Simsek et al., 2009), others have argued that the simultaneous pursuit of exploration and exploitation within a business unit is not only possible but even a necessity for obtaining above-normal performance (Gibson and Birkinshaw, 2004). In this respect, the notion of contextual ambidexterity (Birkinshaw and Gibson, 2004) or harmonic ambidexterity (Simsek et al., 2009) considers exploration and exploitation as complementary organizational activities, and therefore places a premium on individuals' abilities to make their own judgements about how to divide their time between exploratory and exploitative activities and integrate across these activities (Gibson and Birkinshaw, 2004).

To explain the emergence of individual ambidexterity within organizations, scholars have alluded to contextual elements such as stretch and discipline as well as support and trust (Gibson and Birkinshaw, 2004). In addition, sufficient resources are important to provide flexibility and time for individuals to understand how they may best dedicate their efforts to exploration and exploitation. Studies investigating the contextual underpinnings of ambidexterity have emphasized empowerment, or the collectively-held belief of individuals that they have the authority and responsibility to decide how to mange their activities, as an important organizational driver of individual-level ambidexterity (Mathieu et al., 2006). Empowerment provides individual employees with sufficient freedom when fulfilling their dual roles to cope with inherent tensions between exploration and exploitation directly at the frontline.

In addition to contextual characteristics, scholars have also pointed at the importance of (senior) leadership in motivating and supporting individuals to deal with inherent challenges (Kauppila and Tempelaar, 2016; Yu et al., 2013). For instance, scholars have argued that specific leadership styles and supportive leadership behaviors, such as paradoxical leadership and transformational leadership, may play an important role in facilitating the emergence of ambidexterity at lower hierarchical levels within organizations (Jansen et al., 2016). By providing guidance and involving followers to share best practices, senior leaders may encourage experimentation and perseverance in dealing with inherent tensions.

Likewise, research on strategic human resource management (SHRM) has recognized employees as an important source of competitive advantage and suggested that HR practices may enable firms to develop ambidexterity (Patel et al., 2013; Prieto and Santana, 2012; Swart and Kinnie, 2013). Through shaping individuals' ability and motivation to seek out and engage with work activities that require exploration and exploitation, studies have shown how ability-

enhancing and motivation-enhancing HR practices, such as comprehensive training and job enrichment, support individuals to behave ambidextrously (Mom et al., 2019).

To conclude, the literature on explaining individual ambidexterity's emergence has alluded to various important organizational aspects that may support and motivate individuals to deal with paradoxical demands. So far, however, we lack more comprehensive insight about how, and under what circumstances, organizational contexts may also help alleviate individual ambidexterity's potential negative consequences such as exhaustion or dissatisfaction. Although most research has focused on individual ambidexterity's antecedents, we clearly lack insight about what it means for individuals to deal with inherent tensions over time, and how their surroundings may also be able to absorb some of these complex behaviors' negative consequences.

(4) Micro-level drivers of individual ambidexterity

Interest in individual ambidexterity within the strategic management domain initially emerged from the assumption that ambidextrous organizations need ambidextrous individuals (O'Reilly and Tushman, 2004). Such persons attend to exploration and exploitation by conducting activities pertaining to both of these worlds (Mom et al., 2009). While studies on structural ambidexterity stress that the most senior leaders in organizations must be ambidextrous (Tushman et al., 2011), Gibson and Birkinshaw (2004) were among the first to argue that organizational ambidexterity also critically depends on the behaviors of individuals at lower hierarchical levels. Whatever the perspective, Gupta et al. (2006) also warned that ambidexterity may be hard to achieve at the individual level.

All these arguments have triggered subsequent research that attempts to understand individual ambidexterity's antecedents. A substantial part of this research - notably from human

resource management - focuses on the role of organizational systems, processes, and practices for enabling individuals to act ambidextrously. An important notion is that a hybrid context that contains both antecedents associated with exploration and antecedents associated with exploitation triggers individual ambidextrous behavior (Kang and Snell, 2009; Mom et al., 2009; Patel et al., 2013). The same notion prevails in the first studies investigating psychological factors to argue that combinations of traits associated with exploration and traits associated with exploitation, such as divergent thinking and focused attention (Good and Michel, 2013), locomotion orientation and assessment orientation (Jasmand et al., 2012), or openness to experience and conscientiousness (Keller and Weibler, 2015), relate to individual ambidexterity.

More recently, individual ambidexterity conceptualization's emphasis has shifted from a person conducting exploration and exploitation activities towards understanding *how* this person combines these dual activities. For instance, studies show how individuals cope with the tension between exploration and exploitation (Kauppila and Tempelaar, 2016), attempt to come up with ways to synergistically combine the two (Rogan and Mors, 2014), or switch flexibly between these activities over time (Tempelaar and Rosenkranz, 2019). This research has also led to the investigation of corresponding types of different psychological or organizational antecedents, such as the individual's internal personal network (Rogan and Mors, 2014), learning orientation (Kauppila and Tempelaar, 2016), role-breadth self-efficacy (Mom et al., 2019), role-transition abilities (Tempelaar and Rosenkranz, 2019), attention control (Laureiro et al., 2015), and paradoxical practices (Papachroni and Heracleous, 2020).

This research about the psychological and organizational antecedents of ambidexterity has developed largely in isolation. Combining these research streams' insights may be important, as we know from studies of micro-organizational behavior that personal characteristics could enable

or constraint the organizational context's effects, and vice versa (Johns, 2006). Research about individual ambidextrous behaviors' outcomes is also largely absent. We know, for instance, that managers' ambidexterity contributes to their individual performance in more uncertain and interdependent work contexts (Mom et al., 2015). Those contexts may very well include positions at higher levels, but also other positions like those of managers working at the interface of the core organization with corporate venturing units (Hill and Birkinshaw, 2014) or alliance partners (Zimmermann et al., 2015). Finally, an interesting yet unexplored question concerning leadership development (Probst et al., 2011) is whether individuals can learn to become ambidextrous. Responding to this question would require longitudinal research that tracks cognitive and motivational attributes of managers over time.

A research agenda on the microfoundations of ambidexterity

This special issue is predicated on the notion that organizational ambidexterity research would benefit from a microfoundational perspective. The multifaceted nature of organizational ambidexterity, and the necessity of orchestrating collective processes across hierarchical levels, call for such an approach. Assuming that organizational ambidexterity emerges from managers and employees' actions and interactions (Mom et al., 2009), this special issue aims to provide a more complete understanding of ambidexterity that is inherently multilevel in nature and therefore acknowledges the intricate relations between activities that occur at the micro (or individual), meso (or team), and macro (or organizational) levels of analysis. We argue that better understanding of how organizational ambidexterity emerges and evolves over time requires an investigation of individuals' abilities, motivations, and actions, as well as of the organization's structures, systems,

processes, and senior leadership's roles and behaviors. The four papers in this special issue provide rich insights into these microfoundations of ambidexterity.

The first paper in our collection, by Ambra Mazzelli, Alfredo De Massis, Antonio Messeni Petruzzelli, Manlio Del Giudice, and Zaheer Khan, entitled "Behind ambidextrous search: The microfoundations of search in family and non-family firms," offers a microfoundational perspective to challenge the consensual view of ambidextrous search as a superior approach to addressing performance problems. Their findings indicate that a search approach that is associated with enhanced performance in non-family firms may result in inferior performance in family firms contingent on the senior leader's family membership and her/his positional history in the company (i.e., non-family, founder, later-generation). Furthermore, the authors show that while ambidexterity enables a superior search approach for family firms with founder CEOs, those with non-family or later-generation CEOs are likely to benefit from specialization. Their study provides rich insight into the individual-level drivers of organizational ambidexterity (stream 1) and also offers essential evidence that firm characteristics influence the type of individual-level characteristics and capabilities that are required for ambidexterity to arise (stream 3).

In the second study, entitled "Complements or substitutes? A microfoundational perspective on the interplay between drivers of ambidexterity in SMEs," Alexander Zimmermann, Susan Hill, Julian Birkinshaw, and Martin Jaeckel conducted a two-stage survey of SMEs, revealing that formal structural drivers and informal contextual drivers of ambidexterity do not display complementarity but rather act at cross-purposes with each other, which harms individuals' ability to act ambidextrously. Furthermore, they conclude that behaviorally complex executives, those with the ability to think and act ambidextrously, turn out to render the effects of the two organizational drivers relatively unimportant, which are only ever associated with moderate levels

of ambidexterity. This study is a pioneering effort to show the interplay between leadership behavior and organizational contexts in ambidextrous organizations, which also provides rich insight to research on the individual-level drivers of organizational ambidexterity (stream 1).

The third paper in this special issue, entitled "Ambidextrous working in health and social care: A configurational view" by Martin Harris and Geoffrey Wood, investigates how middle and front-line managers contribute to organizational ambidexterity through their engagement with long-standing organizational dilemmas. Based on data from the UK health and social care sector, and through experimenting with an enabling bureaucratic space, they found that middle and front-line managers were able to work on a collective and redistributive basis to cope with tension between exploratory and exploitative innovation. This paper has important implications for research on the individual-level drivers (stream 1) and the social interaction at the collective level (stream 2) for organizational ambidexterity, but also contributes to research on organizational contexts' impact on individuals in organizations (stream 3).

Last but not least, the fourth paper in our special issue, entitled "Now switch! Individuals' responses to imposed switches between exploration and exploitation," by Christina M. Bidmon and Siri Boe-Lillegraven, demonstrates that increasing control and offering emotional support can reduce employees' resistance to switching between explorative and exploitative activities, which enables these individuals to carry out ambidextrous work tasks. This work contributes to the research streams on the individual-level drivers of individual ambidexterity (stream 4) and the organizational-level drivers of individual ambidexterity (stream 3) by extending these discussions from bottom-up to top-down settings. Furthermore, the authors identify emotional, cognitive, and behavioral drivers of switching resistance, and unpack the process leading up to resistance.

Conclusions

Scholars have criticized the prevalence of black box approaches to understanding organizational ambidexterity, and the lack of a more fine-grained, multi-layered understanding of the associated organizational processes and capabilities (Jansen et al., 2012; Raisch et al., 2009, Nosella et al., 2012). While prior ambidexterity research has used both psychological (or micro) and organizational (or macro) theories, few studies have combined these perspectives. Such integrative theories might be essential to overcome the micro-macro divide between individual ambidexterity and organizational ambidexterity research (Pertusa-Ortega et al., 2020). This special issue's goal was to encourage scholars to focus on the microfoundations of ambidexterity across different levels and settings. For example, many prior studies have examined ambidexterity in the context of strategic alliances (Lin et al., 2007; Tiwana, 2008) and mergers and acquisitions (Bauer et al., 2018; Meglio et al., 2015). However, very few studies have focused on the microfoundations of organizational ambidexterity in the context of strategic alliances or mergers and acquisitions (Hughes et al., 2020), or in the context of new product development teams (Jansen et al., 2016), which is an interesting avenue for future research. Moreover, more research is needed to better understand the emergence of ambidexterity at new ventures, because organizational outcomes of such new and small entities may be largely intertwined with how individual entrepreneurs or founding teams operate. Globalization provides another interesting context, where a microfoundational perspective could enable more multidisciplinary, multi-stage, and cross-cultural models of ambidexterity in developing and developed countries. More generally, we conclude this introductory essay with a call for future research to build on the work included in this special issue when developing more advanced models and providing empirical insight on the microfoundations of organizational ambidexterity.

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