

Organizational ambidexterity: two modes of learning*Connecting organizational ambidexterity and organizational learning*

That organizations must be ambidextrous was first suggested by [Duncan \(1976\)](#), who proposed a contingency model of organizational structure according to which innovation required a different structure characterized by higher complexity, less formalization, and less centralization than in the exploitation, or in Duncan's terms, the implementation stage. But it was March's seminal (1991) article "Exploration and exploitation in organizational learning" – in a special issue of *Organization Science* on organizational learning (OL), guest-edited by Michael Cohen – that opened the field of balancing exploration-exploitation (ambidexterity) in established organizations. In so doing, this article firmly established learning as a key element of exploration and exploitation, but in recent research learning in exploration-exploitation has been understudied. This special issue of *The Learning Organization*, "Organizational ambidexterity: two modes of learning," contains articles that develop our understanding of the link between OL and organizational ambidexterity (OA), for example, similarities and differences between them, or how OL can help achieve and sustain ambidexterity over time. [Gibson and Birkinshaw \(2004\)](#) note that OA has increasingly been used to mean an organization's ability to do two different things at the same time.

[Huber \(1991, p. 89\)](#) defines learning by stating, "An entity learns if, through its processing of information, the range of its potential behaviors is changed." His definition of learning appeared in the same special issue of *Organization Science* as [March's \(1991\)](#) article and helped us separate learning from habitual behavior embedded in organizational competencies and routines. We are pleased to add to the literature of OL and OA these fine papers in our special issue with the hope of facilitating the development of knowledge on how to achieve ambidexterity through OL. We elaborate the contribution of these articles in the following discussion of three important themes that connect OA and OL in this special issue: categorizing ambidexterity, learning for ambidexterity, and an integrative approach to ambidexterity.

Theme 1: categorizing ambidexterity and connecting it to organizational learning

When comparing different types of ambidexterity, there are two prominent approaches to contrasting ambidexterity types: structural separation versus contextual ambidexterity ([Raisch et al., 2009](#)). The mechanism for structural ambidexterity is *separation of units*: by dedicating resources, processes, and values to separate exploitation and exploration units, which are coordinated at the top management level, an organization can carry out exploitation and exploration simultaneously ([Lavie et al., 2010](#)). Whereas structural ambidexterity should be viewed at the organizational level – or, in the case of very large organizations, at the SBU level – contextual ambidexterity unfolds at the individual and team levels of analysis. Instead of focusing on dual structures for exploring and exploiting activities, contextual ambidexterity "enable[s] and encourage[s] individuals to make their own judgments about how to divide their time between conflicting demands for alignment and adaptability" ([Gibson and Birkinshaw, 2004, p. 210](#)).

If we look at ambidexterity from the perspective of organizational culture, structural ambidexterity seeks to achieve two separate and distinct cultures. One culture focuses on performance and the exploitation of existing knowledge and competencies through the elimination of variance, and its correlate, waste. A second culture focuses on exploration of new knowledge and competencies through variance generation. The structural separation allows each



culture to achieve fit, and thereby performance (Nadler and Tushman, 1997; Tushman and O'Reilly, 2007). Contextual ambidexterity, on the other hand, seeks to develop a culture in which individuals and teams can manage both explorative and exploitative activities in the same unit by switching between exploration and exploitation activities, and proponents of contextual ambidexterity argue that this drives organizational performance (Birkinshaw and Gibson, 2004; Gibson and Birkinshaw, 2004).

Building on March's premise that "adaptation requires both exploitation and exploration to achieve persistent success" (1991, p. 205), some authors have concluded that this requires structural ambidexterity (Benner and Tushman, 2003; Tushman and O'Reilly, 1996), while others have advocated contextual ambidexterity (Gibson and Birkinshaw, 2004). Yet others have argued that the answer lies in a punctuated equilibrium, i.e. a sequential approach (Burgelman, 2002) characterized by "temporal cycling between long periods of exploitation and short bursts of exploration" (Gupta *et al.*, 2006, p. 698). A classic example of this is provided by Ford Motor Company. Ford produced the Model T from October 1, 1908 until May 26, 1927. Production of Model A, the successor to Model T, commenced on October 20, 1927. 1908 until 1927 was a long, 19-year period of exploitation with significant efficiency gains and cost reductions. This was followed by a relatively short period, 4 months, of exploration before a longer period of exploitation started again. Today, Ford and other car manufacturers regularly introduce new models while continuing to produce and sell existing ones. We view the contextual and structural approaches as examples of ambidexterity but regard the temporal approach as a punctuated equilibrium rather than an ambidextrous solution to the problem of balancing exploration and exploitation. Others, such as Simsek and colleagues (2009) and Brix (2019) in this issue, incorporate punctuated equilibrium or temporal approaches in a broader conceptualization of ambidexterity.

In our dynamic world, there seems to be scant empirical support for a temporal sequencing of exploration and exploitation. As environments are increasingly VUCA (volatile, uncertain, complex, ambiguous) and competition and consumer preferences increasingly dynamic, organizations may no longer have the time to approach exploration and exploitation sequentially as in a punctuated equilibrium. That is, the cyclical or punctuated equilibrium approaches may be less appropriate in a VUCA world than approaches striving for the simultaneity of exploration and exploitation.

In this special issue, the paper "Ambidexterity and OL: revisiting and reconnecting the literatures" by Brix (2019) offers an alternative perspective that integrates the three main approaches to balancing exploration and exploitation – contextual ambidexterity, structural ambidexterity and punctuated equilibrium – into an integrated framework of ambidexterity. Brix expands on Simsek *et al.* (2009) who propose a typology of ambidexterity based on two dimensions, one structural (whether exploration and exploitation take place in the same unit or different units) and one temporal (whether ambidexterity is simultaneous or sequential). This typology offers a multifaceted understanding of the ambidexterity construct: harmonic, cyclical, partitional and reciprocal (Figure 1 in Brix, 2019). Using this typology as the starting point, Brix (2019) adds an inter-OL perspective to the categorization of ambidexterity: *interactive inter-OA* relates to the absorptive capacity of transferred knowledge from one organization to another, whereas *integrative inter-OA* emphasizes the collaboration between organizations in both exploration and exploitation processes. Another contribution of this article is a summary of similarities and differences between OL and OA which demonstrates that while the fundamental premises of exploration and exploitation have not changed significantly since March (1991), studies of OL and OA differ in their focus. Brix suggests that adding the inter-OL perspective can be a means of achieving cross-fertilization between OL and OA.

The article “Learning organizational ambidexterity: a joint-variance synthesis of exploration-exploitation modes on performance” (Kerry and DeSimone, 2019) contributes to the literature by re-examining the reciprocity of exploration and exploitation in OA research, using joint-variance as the estimator for reciprocity. The paper conducts a meta-analysis of exploration-exploitation studies, showing how previous studies of OA have failed to consider the joint variance between exploration (eR) and exploitation (eT) and how the effect of joint variance between eR and eT has an even greater effect on organizational performance than either eR or eT separately. The findings strongly suggest that researchers in the future should specify their analytical models to include joint variance. The careful reader will observe that Kerry and DeSimone (2019) use the term “reciprocal” to mean something different than Brix (2019). The former uses the term in a statistical sense whereas the latter uses it to refer to workflow in the same way as Thompson (1967).

Theme 2: learning for ambidexterity

It is still unclear whether various approaches to ambidexterity can provide sustained performance across a wide range of contexts and boundary conditions, and how learning could make this possible. The article “Sequences of learning types for organizational ambidexterity” by Seidle (2019) addresses this topic nicely by examining how organizations employ different forms of learning in the innovation process, using data from a longitudinal study on structural ambidexterity. The findings suggest that while both experiential learning and vicarious learning are important for ambidexterity, the sequencing of learning time and similarity of experience differ markedly between exploration and exploitation. Figure 1 in Seidle (2019, p. 388) illustrates the sequences of learning type (experiential and vicarious learning) in the three stages of the innovation process (initiation, development and implementation) in two cases of exploitative innovation and explorative innovation. As ambidexterity requires different differentiation and integration mechanisms, Seidle (2019) suggests using technology brokerage as the mechanism for structural differentiation and cross-unit interfaces as the mechanism for integration. This article contributes to the literature by proposing how firms could use an ambidextrous structure successfully by sequencing learning types with the right timing in the process of external knowledge sourcing and internal process development.

The link between OA and OL is elaborated by an empirical examination of how dynamic capabilities interact with OL and how this relationship results in OA in the article “Dynamic capabilities, sensemaking and organizational ambidexterity in a higher education institution” (Souza and Takahashi, 2019). Using qualitative data including in-depth interviews, observations and documentary research covering 15 years, Souza and Takahashi offer a conceptual model which suggests how dynamic capabilities, OL and OA are connected. They argue that dynamic capabilities induce the forming of new routines, thanks to the institutionalization of knowledge through OL, and these new routines allow managers to balance activities of exploration and exploitation, i.e. OA. This article contributes not only a model connecting dynamic capabilities, OL and OA but also provides empirical evidence in the context of a Brazilian higher education institution. The research context makes this paper especially relevant as higher education is in a state of rapid change around the world.

Theme 3: an integrative approach to ambidexterity – one paradoxical mode of learning

Although the theoretical underpinnings of OA include OL (O'Reilly and Tushman, 2013), this area is understudied, and we seek new knowledge of modes of learning in ambidextrous structures and processes. However, OA as two modes of learning is not only about separating these two activities but also about integrating them in the right manner. The latter issue has not received enough attention, impeding the implementation of ambidexterity in organizations. We

No.	Manuscript	Definition of OA	OA approach	Connection to OL	Contribution
1	Brix (2019) "Ambidexterity and organizational learning: Revisiting and reconnecting the literatures"	The process consisting of two components: exploration and exploitation. Balancing these two activities is the main argument for achieving improved performance	Synthesis (Harmonic, cyclical, partitional, reciprocal, inter-organizational)	Similarities and differences between OA and OL (Table I) call for cross-fertilizing opportunities	Adding inter-organizational learning perspectives to organizational ambidexterity: interactive and integrative
2	Kerry and DeSimone (2019) "Learning organizational ambidexterity: A joint-variance synthesis of exploration-exploitation modes on performance"	The process of reciprocal exploration and exploitation	Sequential	These two learning modes (exploration and exploitation) should be framed as reciprocal, i.e. sequential and mutually reinforcing processes	Proposing joint-variance as a measure for exploration-exploitation reciprocity, which explains the organizational performance better
3	Seidle (2019) "Sequences of learning types for organizational ambidexterity"	The approach to balance tensions between short-term certainty and long-term investment inherent in the exploitation-exploration paradox	Structural	How learning types (experiential and vicarious) are mobilized as inputs into the technological innovation process in sequence (Figure 1)	Suggesting how firms might utilize ambidextrous structure successfully by sequencing learning types and choose ideal timing of external knowledge sourcing and internal process development
4	Souza and Takahashi (2019) "Dynamic capabilities, sensemaking and organizational ambidexterity in a higher education institution"	The ability to find the relevant balance between exploration and exploitation practices	Contextual	OL is the process occurred during the dynamic capabilities activities which results in OA	Connecting DC, OL, and OA in the context of a Brazilian Higher Education Institution
5	Kakkar (2019) "The Goblet and Two Faces: Understanding Transcendence and Paradox from the perspective of Advaita Vedanta"	The ability to balance current demands and maintain future adaptability by pursuing contradictory goals of exploration and exploitation simultaneously	Contextual	"Affirmation followed by recension" is the learning method for gaining intuitive experience of transcendence in order to create cognitive tolerance towards paradoxes in ambidexterity	Connecting ambidexterity and paradox to literature of Indian philosophy
6	Cunha, Bednarek, and Smith (2019) , "Integrative ambidexterity: One paradoxical mode of learning"	The enabler for organizations to simultaneously learn and unlearn, explore and exploit	Structural	Integrative ambidexterity is an organizational approach to emphasizing the entwinedness of exploration and exploitation. Learning as an integration mechanism	Offering a pathway towards a paradoxical mode of learning for integrative ambidexterity, involving novelty founded on memory, agility that draws on both flexibility and focus and improvisation that both maintains and changes systems

Table I.
An overview of
articles and their
approach to
ambidexterity

are happy to include in this special issue articles proposing how to integrate these two seemingly paradoxical activities.

The article “The Goblet and Two Faces: understanding Transcendence and Paradox from the perspective of Advaita Vedanta” by Kakkar (2019) addresses how to create individual cognitive tolerance towards paradoxes when organizations implement a contextual ambidextrous strategy. This study is interesting in that it connects OA – including the paradoxical perspective – and OL to the literature of Indian philosophy. Making such connections to non-Western thinking is important to enhance our knowledge of indigenous practices and broaden the scope of management theory (Van de Ven and Jing, 2012). The learning method suggested in the study, called “Affirmation followed by recension,” enables individuals to gain an intuitive experience of transcendence which in turn helps them understand the paradoxes of ambidexterity. The method enhances the reflexive thinking of individuals faced with a paradoxical situation in which they need to decide which activity – explore or exploit – they should focus on at a specific time. The paper helps to address the question of how individuals can best divide their time between exploration and exploitation activities in an organization employing contextual ambidexterity.

The paper “Integrative ambidexterity: one paradoxical mode of learning” (Cunha *et al.*, 2019) extends the understanding of dual learning modes of exploring and exploiting by proposing an idealized singular learning mode, called integrative ambidexterity. Integrating exploration and exploitation is never an easy task due to the complexity of operationalization. There is no static balance of exploration and exploitation, but a dynamic balancing between them might be possible. This requires a learning process within organizations that uses novelty, agility and improvisation as mechanisms for enabling both exploration and exploitation. The implication here is that although a certain degree of separation is needed between explorative and exploitative learning, the OL and OA literatures should expand their focus to encompass the singular learning mode that integrates the two kinds of learning.

Table I gives a brief overview of the articles in this special issue, specifying the approach they take to OA, their connection to OL and their main contributions.

Future directions

The aim of this special issue is to advance our understanding of how OL is connected to ambidexterity and how it can enhance ambidextrous strategies. There are several avenues for further development in this area. Some early research has explored the dynamics of microlevel exploration and exploitation in new product development and how this yields learning (Sætre and Brun, 2012, 2013), but further research is needed here as well as on the same dynamics in organizations’ operational core. We also would like to see research connecting ambidexterity to the learning organization as well as new and innovative methods for studying OA. Finally, we encourage future research, both conceptual and empirical, on the topic of integration mechanisms in OA.

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Further reading

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