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Entrepreneurial Learning: What do we mean by it?

ABSTRACT

Purpose: Given the growing recognition that learning plays a crucial role in entrepreneurship, this paper systematically reviews the literature on entrepreneurial learning, takes account of its progress, and analyzes the unique characteristics of entrepreneurial learning (EL) as a *concept*.

Design/methodology/approach: This paper employs a systematic approach to reviewing the literature on entrepreneurial learning, and critically assess the EL concept through the criteria of: resonance, attributes (involving consistency, fecundity, and differentiation), domain, and causal utility.

Findings: A synthesis and assessment of extant literature reveals that a key challenge is the clear articulation of EL as a concept. This article takes the first steps towards the specification of EL through a discussion of its unique properties. In this respect, the article proposes the understanding of EL as a the undertaking of entrepreneurial (i.e. proactive, exploratory, and collaborative) learning behaviors (a crucial component of the EL concept); and recommends the context of new venture creation as an appropriate domain for the study of EL.

Research limitations/implications: This article paves the way towards a more robust specification of EL as a concept.

Originality/value: This systematic literature review initiates a discussion about how EL literature can find convergence on key issues, thus helping the field move forward. It does so by articulating central attributes of the EL concept.

Keywords: entrepreneurial learning, learning behaviors, new venture creation.

INTRODUCTION

Learning is a multi-dimensional phenomenon pervasive to almost any human endeavor. Learning involves, for instance, emotional (Cope, 2005), cognitive (Corbett, 2005), behavioral (Wing Yan Man, 2012), and social aspects (Kempster and Cope, 2010). Moreover, learning is a situated (Passaro *et al.*, 2017) and (re)generative activity (Walsh and Cunningham, 2017) that builds upon/adds to one's direct and indirect experiences (Mansoori, 2017), both unconsciously as well as under the control of individuals (Fust *et al.*, 2018). Furthermore, learning is a phenomenon related not only to the individual, but also to teams (El-Awad *et al.*, 2017) and organizations (Örtenblad, 2005). While acknowledging all the complexity surrounding the phenomenon of learning, this article, building upon the efforts by Wing Yan Man (2012), calls attention to the need of discussing the unique attributes of 'entrepreneurial learning' (EL) as a concept. EL will remain elusive and underdeveloped as long as it is understood simply as the intersection between learning and entrepreneurship.

It is not uncommon for a concept to lack clarity in entrepreneurship research and more broadly, in the social sciences (Gerring, 2012). Part of the reason is that there are no 'right' answers when it comes to giving labels to social phenomena. Consequently, concepts are often disputed, redefined, adapted to fit various empirical contexts, and sometimes stretched well beyond their normal range of use (Gerring, 2012). EL literature suffers from the condition that "...*studies of the same subject appear to be talking about different things, and studies of different topics appear to be talking about the same thing*" (Gerring (2012: 113). At its present stage, EL literature consists of a collection of loosely-connected studies that share an interest in the intersection of learning and entrepreneurship; yet, there is no shared understanding of EL as a concept. This has prevented accumulation of knowledge and has caused fragmentation in the field. Thus, for EL scholarship to advance, a shared understanding of EL as a concept is urgently needed. The purpose here is not to reduce the EL concept into rigid boundaries, but rather to encourage a discussion about how we can specify it.

The main purpose of this article is therefore to take stock of extant literature and to promote a conversation about how to delineate the EL concept. The following research questions are thus posed: *how has 'entrepreneurial learning' been understood in EL literature?* and *how can 'entrepreneurial learning' become established as a concept?* The article addresses the first RQ through a systematic

review, and the second RQ through the evaluation of EL as a concept, focusing on its resonance (i.e. how appropriate its label is); attributes (i.e. the unique properties of the concept)—involving its consistency (i.e. whether its attributes are used with regularity across empirical contexts), fecundity (i.e. the coherence among its attributes), and differentiation (i.e. how different the concept is from neighboring concepts); domain (i.e. the communities and empirical domains the concept embraces); and causal utility (i.e. the role of the concept in a causal theory) (Gerring, 2012).

This article has three main contributions. First, the article systematically reviews how the term ‘entrepreneurial learning’ has been understood in EL literature, and finds that it has been largely used as a synonym to ‘entrepreneurs’ learning’. Second, it critically evaluates the EL concept through Gerring’s (2012) criteria and reveals the need for its sharper conceptualization. Third, and relatedly, the article takes the first steps towards a shared understanding of EL.

METHOD

This article employs a systematic literature review (SLR) approach, following recommendations from Tranfield *et al.* (2003). A systematic approach to reviewing academic literature has the advantage of being rigorous and transparent in the steps taken in collecting and analyzing data, thus allowing for replication.

This article takes stock of EL literature within the context of new venture creation/early development. Whereas a previous review by Wang and Chugh (2014) explored the interface between learning and entrepreneurial opportunities (which covers start-ups as well as established firms), this systematic literature review focuses on the connection between learning and start-up entrepreneurship. This choice is appropriate because learning is in a heightened state in face of the inherent uncertainty associated with new ventures. For instance, entrepreneurs face intense financial pressures that threaten the survival of their new ventures (Brinckmann *et al.*, 2010). Moreover, in emerging ventures, links to markets, resources, and routines are all under construction by the entrepreneur (Brush *et al.*, 2001). What is more, start-up entrepreneurship is the context in which EL scholars have historically applied insights from various learning theories, including but not limited to organizational learning (e.g. Wang and Ahmed, 2003) and experiential learning theory (e.g. Kolb, 2015). Given all of this, this article focuses on the

context of new venture creation/early development. On what follows, the procedures for the SLR are summarized.

Sampling of articles

Two strategies were employed for collecting articles: a database search, and the inclusion of 2 special issues on EL. The database search was performed in *Scopus* and covered EL publications up until November 2018. It included the following keywords: *learn* AND entrepreneur*AND founder* OR start-up team* OR entrepreneurial team* OR new venture team* OR founding team* OR nascent team* OR new venture* OR new business* OR new firm* OR new enterprise* OR emerg* venture* OR emerg* business* OR emerg* firm* OR emerg* enterprise**. These keywords captured articles concerned with both *learning* and *entrepreneurship* within the context of new venture creation (inspired by Grégoire *et al.*, 2011) [1]. Further, two special issues were included: *Entrepreneurial Learning: Researching the Interface between Learning and the Entrepreneurial Context* (Harrison and Leitch, 2005); and *Entrepreneurial learning dynamics in knowledge-intensive enterprises* (Secundo *et al.*, 2017).

The database search focused mainly on journals that publish entrepreneurship research. Following the classification provided by the *Chartered Association of Business Schools*, the author selected the journals ranked as level 2 or higher in the *Academic Journal Guide 2018* within the field of *entrepreneurship and small business management* (n=17), and the journals ranked as level 3 or higher within the fields of *general management, ethics and social responsibility* (n=17); *innovation* (n=4), and *strategy* (n=4). The decision to include journals in related fields was due to the occasional publication of entrepreneurship research in these outlets. In total, the search was carried out in 42 journals [2]. Lastly, the search was limited to *published articles* and *articles in press*, as these represent finished, peer-reviewed work. Publications such as book chapters, conference papers and others were excluded. While these choices may have excluded pertinent studies, they also ensured focus on publications with the highest impact. This procedure provided an initial sample of 227 articles.

Application of exclusion criteria

After excluding 28 duplicates, a sample of 199 articles was reached. These were submitted to the following exclusion criteria:

1. Following recommendations from Zhao *et al.* (2017), the articles not sufficiently interested in EL were excluded. In order to confirm this, it was noted whether the article either cited or was cited by any of the studies from the 2005 ET&P or from the 2017 IJEB&R special issues OR whether the article included the term: “*entrepreneurial learn**” at least once in the text (beyond the title, abstract, or keywords). If the article did not satisfy at least one these criteria, it was excluded (90 articles excluded).
2. Articles that focused primarily on entrepreneurship education, teaching, or training were excluded because this review is concerned with learning in informal settings. Accordingly, 28 articles focusing on e.g. entrepreneurship MSc programs or courses, entrepreneurship training seminars, or entrepreneurship-promoting educational initiatives were excluded (e.g. Verzat *et al.*, 2017).

For the most part, the first criterion was not subject to interpretation and thus, did not require the evaluation of a second coder. In the few cases where further analysis was required, the author and one additional coder [3] engaged in discussions until a joint conclusion was reached. The second criterion was assessed independently by the author and the additional coder, who reached the same results in their evaluations.

Analytical model

At this point, a final sample of 81 articles was reached (available through a request to the author). These were individually analyzed in the following themes: author, year, journal, article title, EL definition, methods, unit of analysis, key findings, (in)dependent variables (if quantitative methods were employed in the study), and EL measures. Next, a cross-article analytical model was developed, focusing on how the articles have understood ‘entrepreneurial learning’ since Wang and Chugh (2014) [4]. This was followed by a critical evaluation of EL as a concept, based on Gerring (2012).

USE OF THE LABEL 'ENTREPRENEURIAL LEARNING'

This review identifies a key, visible challenge for EL scholars: *the need for a clear articulation of EL as a distinct concept*. Thus far, EL scholars have, to a great extent, used the label 'entrepreneurial learning' to refer to the various ways by which entrepreneurs learn. That is, the term 'entrepreneurial learning' has been largely (but not exclusively) used as a synonym to 'entrepreneurs' learning'.

This article takes, as a point of departure, the previous review by Wang and Chugh (2014), which helped organize EL literature in many important ways. For instance, they identified its theoretical underpinnings, discussed EL definitions, and explored the role of context in EL. In particular, their review implicitly summarized three key insights about the nature of EL: (1) a type of learning that individuals and organizations can apply (i.e. individual and collective learning); (2) the undertaking of learning behaviors by individuals and firms (i.e. exploratory and exploitative learning); and (3) the learning styles of individuals (i.e. intuitive and sensing learning). After Wang and Chugh (2014), the term 'entrepreneurial learning' has been understood under two major perspectives: the experiential learning approach, and alternative approaches.

Experiential learning approach

It is interesting to note that EL literature, while still fragmented and incongruent in many aspects, has preserved the notion that entrepreneurs' learning involves the transformation of experiences into knowledge (i.e. EL as an experiential learning process). This shows the strong influence of the 2005 ET&P special issue on the field. In particular, Politis' (2005) conceptual model was very influential in laying the ground for the understanding of entrepreneurs' learning as an experiential process. Consequently, a good portion of EL articles have continued to build upon the this perspective, with focus on 4 different themes.

The first theme, underpinned by Kolb's Entrepreneurial Learning Theory (2015), concerns the understanding of **EL as the learning styles of entrepreneurs**. Learning styles refer to the (relatively fixed) modes by which individuals transform their experiences into knowledge. For the most part, four basic learning styles have been explored: accommodators (enthusiastic learners who welcome new experiences); divergers (who like to think things through before taking action); assimilators (who like

to consider things from an analytical, logical, and objective way); and convergers (who enjoy solving problems and seeing how their ideas work out in practice) (Kolb, 2015). Studies under this theme have improved our understanding about the role of entrepreneurs' learning styles in new venture organizing activities (Honig and Hoppe, 2019), and in entrepreneurial success (Gemmell, 2017).

The second theme concerns **entrepreneurs' learning from failure**. This theme revolves around the instances when entrepreneurs face significant challenges or problems (most notably, business closure) that trigger transformational or re-generative learning (Cope, 2005, 2011). Studies under this theme have examined the mediating role of learning in the relationship between failure experiences and new venture performance (Boso *et al.*, 2019), the relationship between business failure velocity and entrepreneurs' learning behaviors (He *et al.*, 2018), the underlying sub-processes connecting business failure with entrepreneurs' regeneration (Walsh and Cunningham, 2017), and the extent of entrepreneurs' learning from failure as influenced by their ascriptions for the failure (Yamakawa and Cardon, 2015). Such studies have been heavily influenced by Jason Cope's previous works. In particular, Cope (2005) in ET&P laid the foundation for the study of entrepreneurs' learning from failure (which shows again the strong influence of the 2005 ET&P special issue in shaping the field). Overall, these studies have highlighted failure as an important source of learning, and have explored how entrepreneurs learn from it (e.g. how they identify the causes for the failure, and how they deal with the emotional and social costs associated with it).

The third theme revolves around the understanding of **EL as the learning embedded in the pre-entry experiences of the entrepreneur** (i.e. prior to start-up). Here, experiences are seen as stocks that encapsulate the past learning lessons of entrepreneurs. The studies under this theme, largely underpinned by the view that human resources are a form of capital (i.e. human capital theory) (Marvel *et al.*, 2014; Unger *et al.*, 2011), were mostly concerned with the role of different types of human capital in new venture performance (e.g. Robert *et al.*, 2017; Paik, 2014; Santarelli and Tran, 2013). Consequently, although these studies adhere to the experiential learning perspective, their interest in the process of EL is marginal.

The fourth and last theme concerns **entrepreneurs' vicarious learning**. Revolving around how entrepreneurs learn through the observation of others' behaviors and actions, studies under this theme

have examined the learning processes of entrepreneurs in prescriptive accelerators, where vicarious learning precedes and informs experiential learning (Mansoori, 2017), the importance for entrepreneurs to learn from other stakeholders in their network (Ekanem, 2015), and how entrepreneurs learn from role models in pre- and post-startup (Zozimo *et al.*, 2017). In all, such studies call our attention to the instances when entrepreneurs learn through second-hand experiences, which can reduce the cognitive load of direct experiential learning activities.

In sum, studies under the experiential learning perspective have reinforced the understanding of EL as: (1) an individual-level phenomenon; (2) an experiential learning process involving: (2a) entrepreneurs' learning styles; (2b) learning from failure; (2c) the learning embedded in the pre-entry experiences of the entrepreneur; and (2d) vicarious learning.

Alternative approaches

The field's over-reliance on the experiential learning perspective has recently raised some criticism. Although not completely new to EL literature, these critical voices have subscribed to alternative approaches in the understanding of EL, broadening our understanding of the topic outside the experiential learning perspective. This stream can be divided into 4 themes, as follows.

The first theme revolves around the understanding of **EL as a self-regulated learning process**, which consists of the planning, monitoring, and self-reflection over one's learning (Fust *et al.*, 2018). Self-regulated learning (SRL) requires awareness, active control, and evaluation of one's learning process. Similar to the notion of organizational double-loop learning (Argyris and Schön, 1978), self-regulated learning refers to how individuals can *learn how to learn*.

The most salient contribution to EL literature, amongst proponents of SRL, comes from Fust *et al.* (2018), where they called attention to the shortcomings of Kolb's ELT in explaining the learning of entrepreneurs. They argue that SRL is a more adequate view because ELT has limited explanatory power, downplays the role of reflection in learning, does not explain well how learning happens in new situations, and largely ignores the development of learning capabilities. Similarly, Mansoori (2017) hinted at the importance of SRL by highlighting the presence of double-loop learning in entrepreneurs' theories of action [5].

At a first glance, experiential learning seems to be at odds with self-regulated learning. Whereas the former assumes that individuals learn by transforming experiences into knowledge in a rather passive fashion, the latter emphasizes the intentionality and control of the individual over his/her own learning. The two perspectives are, however, not necessarily mutually exclusive. They simply highlight different aspects of entrepreneurs' learning. Experiential learning recognizes that entrepreneurs' activities are most often not targeted at learning per se, but at the solution of problems. Contrastingly, SRL places high importance on the learning process itself, and on the monitoring/improvement of one's learning capabilities. In conclusion, SRL focuses on how entrepreneurs actively control (and develop) their learning (capabilities).

The second theme concerns the understanding of **EL as a socially-situated activity**. The most common theory under this theme is *situated learning theory* by Lave and Wenger (1991), which highlights learning as a social, relational, and practice-based activity. Situated learning theory calls attention to how learning shapes and is shaped by the community in which people are embedded, how knowledge is the result of negotiation and shared understanding, and to issues of conflict and power dynamics.

This perspective understands EL as a collective and systemic undertaking in which: individuals' learning influences their community and vice-versa (Cannavacciuolo *et al.*, 2017); the learning experiences of faculty-entrepreneurs are greatly influenced by their environment (Feldmann, 2014); start-up competitions represent a rich learning environment for prospective entrepreneurs (Passaro *et al.*, 2017); and peripheral locations shapes learning in particular ways (Rae, 2017). In all, these studies provide a rich and contextualized understanding of EL, and the insight that learning often happens in interaction with others as part of a social process.

The third theme concerns the understanding of **EL as learning behaviors**, which refer to what entrepreneurs (and firms) actually do regarding their learning practices. Wing Yan Man (2012) argued that a behavioral approach would allow the specification of EL as a concrete construct since learning behaviors consist of the observable portion of learning. In addition to Wing Yan Man's (2012) important contribution, Aldrich and Yang (2012) highlighted our lack of knowledge about what (nascent) entrepreneurs do when it comes to their learning behaviors. Similarly, West and Gemmell (2018) claimed there is a need for increased understanding of how founders' learning behaviors are transformed

into an organizational property that guides innovation-related activities. Overall, these studies emphasize the observable and measurable portion of the learning of entrepreneurs and firms (i.e. their learning behaviors).

The fourth and last theme concerns the understanding of **EL as team-level learning**. The focus on team-level learning has only recently drawn the attention of EL scholars. A noticeable contribution comes from El-Awad *et al.* (2017), who defended the view of EL as a team-level process in which team members in a new venture build and share mental models, act upon these and consequently, create organizational routines in new ventures. El-Awad *et al.* (2017) were the first to introduce a conceptual model specifically oriented to team-level learning processes in new ventures. Similarly, Brettel and Rottenberger (2013) explored the interplays between individual and collective learning—through the operationalization of Crossan's *et al.* (1999) 4I framework, they empirically investigated the role of entrepreneurial orientation (EO) in individual, team, and firm-level learning. In all, studies under this theme have responded to calls for more research beyond the individual entrepreneur, and on how individual-level learning integrates with collective learning (Wang and Chugh, 2014).

In conclusion, the studies under alternative approaches have proposed the understanding of EL as: (1) a self-regulated learning process; (2) a socially-situated activity; (3) the undertaking of learning behaviors; and (4) a team-level learning process.

TOWARDS A SHARED UNDERSTANDING OF EL

Having reviewed how EL articles have used the label 'entrepreneurial learning', this article now employs Gerring's (2012) criteria to assess EL as a concept. These are: resonance; attributes (involving consistency, fecundity, differentiation); domain; and causal utility [6] (Gerring, 2012: 117). Each criterion is introduced, followed by an assessment and suggestions as to how a shared understanding of EL can be achieved.

Resonance

The resonance criterion revolves around the task of finding labels to empirical phenomena. As a general rule, any given term ought to make logical sense, be intuitively clear, and resonate with its established usage (Gerring, 2012). For the most part, EL scholars have used the label 'entrepreneurial learning' to

refer to the various ways by which entrepreneurs learn (i.e. entrepreneurs' learning). In some occasions, however, EL has been understood differently: as a socially-situated activity, where the locus of learning is shifted to the interactions among people (e.g. Rae, 2017); as the undertaking of learning behaviors by both entrepreneurs and firms (Wang and Chugh, 2014); and as the learning of new venture teams (e.g. El-Awad *et al.*, 2017).

Although the current focus on entrepreneurs' learning has made important contributions to the literature, this article proposes the development of 'entrepreneurial learning' as a distinct type of learning. Different from entrepreneurs' learning, which directs our attention to the variety of learning experiences of entrepreneurs, 'entrepreneurial learning' denotes a special kind of learning, one with unique properties. In this sense, the word 'entrepreneurial' qualifies learning and raises the question: what is entrepreneurial about it? Answering this question is an important because it allows for the building of a shared understanding and the consistent use of EL as a concept. A possible understanding is proposed through a discussion of its attributes.

Attributes

Consistency

Consistency refers to whether the attributes of a concept are used with regularity across empirical contexts. A concept should elicit similar connotations through the range of contexts in which it is applied (Gerring, 2012). Thus far, the following attributes have been articulated in extant literature, where EL can be understood as:

- an individual, team, or firm-level phenomenon;
- the undertaking of (exploratory and exploitative) learning behaviors;
- an experiential learning process involving:
 - entrepreneurs' learning styles;
 - learning from failure;
 - the learning embedded in the pre-entry experiences of entrepreneurs;
 - vicarious learning;
- a self-regulated learning process; and

- a socially-situated activity.

So far, such characteristics have been presented as ‘sufficient-condition attributes’, where the addition of any attributes increases the potential empirical contexts in which the concept is applicable. No discussion has taken place, however, in regard to the ‘necessary-condition attributes’ of the EL concept, where the addition of attributes diminishes the range of phenomena that are covered (Gerring, 2012). The latter can be a productive undertaking in EL scholarship, as the EL concept clearly lacks clarity and consistency.

As a starting point in the direction towards a more precise understanding of the EL concept, this article proposes the following attributes, as necessary conditions:

- i. The understanding of EL as entrepreneurial learning *behaviors*. Recognizing that EL can involve several other important aspects (e.g. cognitive, social, and emotional), it may be necessary, in its specification as a concrete construct, to break it down in its most important elements, one of which is the entrepreneurial learning behaviors undertaken (especially but not exclusively) by individuals starting up new ventures. The focus on learning behaviors is appropriate because of their tangibility, that is, they represent a concrete point of interaction with the world. As such, their observation and systematic investigation is made easier (Wing Yan Man, 2012).
- ii. Aligned with the previous attribute, there is a need to specify what makes entrepreneurial learning behaviors ‘entrepreneurial’. Whereas several learning behaviors can be displayed by individuals (or teams, firms, etc.), only a selected portion of these can be regarded as ‘entrepreneurial’. In this respect, this article suggests focus on the learning behaviors that are: *proactive* (i.e. anticipatory, prospective, change-oriented, and self-initiated) (Mumford, 1994; Wing Yan Man, 2012); *exploratory* (i.e. exploring new possibilities through variation, experimentation, and discovery) (Politis, 2005; Wang and Chugh, 2014); and *collaborative* (i.e. social, participative, and shared with others) (Rae, 2005). Proactive learning behaviors are future-oriented and support change and innovation. Exploratory learning behaviors involve the discovery of new knowledge and the acquisition of new skills. Collaborative learning behaviors entail the engagement of others in one’s learning process. This is not intended as an exhaustive

list of qualifiers for what makes entrepreneurial learning behaviors ‘entrepreneurial’, but rather as an initial step towards a more robust specification of EL with regard to its behavioral aspect.

Fecundity

The issue of fecundity refers to the coherence among the attributes of a concept. A concept only makes sense when its attributes interact with one another in a logical, functional manner (Gerring, 2012). The EL concept, in its current state, does not meet the criterion. For instance, it is unclear how the attribute ‘learning from failure’ is related to the attribute ‘self-regulated learning’. In fact, they seem to work in opposition to each other—whereas the former is retrospective, the latter is future-oriented. In contrast, the attributes proposed here hold together as they refer to the instances when learning takes place in an entrepreneurial fashion, through the undertaking of proactive, exploratory, and collaborative learning behaviors.

Differentiation

Differentiation refers to how different a concept is from neighboring concepts. This means that a good concept is one with well-established boundaries (Gerring, 2012). In this respect, it is crucial to ask the question of what a concept precludes in its definition. The EL concept, in its current state, does not meet the criterion. Having been used to denote various phenomena, it is difficult to contrast EL with other kinds of learning.

The attributes proposed here demarcate the boundaries of EL (as entrepreneurial learning behaviors) in a clearer manner. For instance, the proposed concept can be contrasted with:

- Individuals’ learning styles or teams’ or firms’ overall orientation towards learning. Individuals (and teams, firms, etc.) may have their own preferences with regard to learning, but it is important to distinguish between a pre-disposition towards learning and entrepreneurial learning behaviors. The former (i.e. pre-dispositions) may actually work an antecedent to the latter (i.e. learning behaviors). As an example, the preference towards a given learning style may prompt the individual to undertake learning behaviors correspondent to that style.
- The learning embedded in the pre-entry experiences of entrepreneurs (i.e. their human capital). The learning encapsulated in the experiences of the individual prior to the creation of a new

venture are not the same as the learning behaviors demonstrated by him/her. Whereas the former involves the content of learning (i.e. the what of learning), the latter entails the process of learning (i.e. the how of learning).

The comparison with these other phenomena helps demarcate the boundaries of EL as ‘entrepreneurial learning behaviors’, which does not prevent, for instance, the discussion of whether there is a prevalent *entrepreneurial* learning style among the ones being explored in EL literature. Although this article argues in favor of EL as entrepreneurial learning behaviors, it does not dismiss the importance of these other phenomena. On the contrary, it encourages their study and continued contributions to the literature.

Domain

The criterion of domain revolves around the question of how clear and logical the language is for the community(ies) and the empirical terrain(s) that a concept embraces. A concept can only be expected to resonate with the audience(s) and empirical world(s) to which it is targeted at (Gerring, 2012). When a concept is used outside its established domain boundaries, it is likely to be misinterpreted or not comprehended at all.

The empirical terrain of EL has been quite varied. The term has been used to explain various phenomena such as: entrepreneurship education (e.g. Verzat et al., 2017); the learning of individuals and organizations in the pursuit of entrepreneurial opportunities (e.g. Lumpkin and Lichtenstein, 2005); and the learning of entrepreneurial organizations (e.g. An et al., 2018). The development of the EL concept across multiple contexts has probably created some confusion and fragmentation among EL scholars.

This article claims it is beneficial to focus on a specific context (i.e. new venture creation) in the development of EL as a concept. A key argument for why new venture creation is a suitable empirical terrain for EL is that it represents a concrete and easily-identifiable empirical event, in which learning is in a heightened state due to the inherent uncertainty associated with new ventures. Put differently, entrepreneurial learning behaviors are likely to be present in the new venture creation context, and this makes their detection, observation, and examination easier.

Despite this recommendation, this article does not rule out that EL as ‘entrepreneurial learning behaviors’ can be present in a range of different domains and be related to teams or organizations. In

fact, the way that this article conceptualizes EL opens up the possibility for a shared understanding of EL across several contexts and units of analysis. Although it is likely that the entrepreneurial learning behaviors undertaken by entrepreneurs are different from those displayed by, for instance, established organizations, it is also likely that they share underlying commonalities.

Causal utility

This criterion refers to the utility a concept has within a causal theory (Gerring, 2012). In this regard, EL is proposed as a process that has an effect on various outcomes. Currently, the outcomes explored in EL literature can be divided in two groups: *opportunity-related* e.g. generation of new business ideas (Gabrielsson and Politis, 2012), and *others* i.e. outcomes ranging from the development of entrepreneurial knowledge at the individual level (e.g. Holcomb *et al.*, 2009) to financial venture performance (e.g. Toft-Kehler *et al.*, 2014). EL literature has focused considerably more on outcomes at the individual or firm levels, rather than at the group level. This is due to the predominant view of EL as pertinent to the individual entrepreneur, the historical interest of entrepreneurship scholars in determining the success of new ventures (i.e. firm-level), and that studies concerning teams have only recently emerged.

This article advances that a stronger connection between EL (as the undertaking of entrepreneurial learning behaviors by business founders) and the performance of the new venture (broadly understood) is in demand, for the reason that the learning of entrepreneurs can have an important influence on properties of the emerging organization. The underlying logic is that the learning behaviors of the entrepreneur, often the key decision-maker and the one responsible for building up the new organization, may exert an important influence in the construction of various capabilities (Helfat and Peteraf, 2003) in the new venture, not least with regard to organizational learning capabilities (Goh *et al.*, 2012). The literature on organizational learning has largely operated with the assumption of established organizations. However, little attention has been paid to how and why organizations develop certain features in the first place. The undertaking of entrepreneurial learning behaviors by business founders may ‘imprint’ several important characteristics on the emerging venture (Marquis and Tilcsik, 2013), which have important implications for its performance.

CONCLUSION

This article has found that the term ‘entrepreneurial learning’ has been largely used, in extant literature, to refer to the various ways by which entrepreneurs learn. This article proposes a more precise conceptualization of EL by highlighting it as ‘entrepreneurial learning behaviors’. On the way towards a shared understanding of EL, this article has engaged in discussions about its resonance, attributes (consistency, fecundity, differentiation), domain, and causal utility.

Several important implications for future research are offered. First, this article, seeking to advance EL as a concept, calls attention to the learning behaviors of individuals, teams, or firms that have ‘entrepreneurial’ qualities. In this respect, the article provides insights for the development of a scale measuring the behavioral aspect of EL. Future research is encouraged to develop instruments that appropriately capture this important component of EL, which will allow the field to achieve more integration and to accumulate knowledge. Second, and relatedly, the article has proposed three central features for what makes entrepreneurial learning behaviors ‘entrepreneurial’: proactiveness, exploration, and collaboration. This represents an important step in discriminating the uniqueness of EL. Future research, especially studies using a qualitative theory-building approach, could further specify what is entrepreneurial about individuals’ or teams’ or firms’ learning behaviors on the basis of empirical data. Third, by recognizing the multi-dimensionality of EL, the article also opens up the possibility for discussing what is entrepreneurial about, for instance, learning styles, learning from failure, and self-regulated learning. Despite the article has argued in favor of entrepreneurial learning behaviors, this does not preclude the discussion of these other important aspects of EL. In fact, it highlights the potentiality of EL research to build novel and interesting concepts spanning the boundaries of the immediate field. Fourth, the article offers insights to research on organizational learning with regard to the early stages of development of a new venture. In particular, the EL concept, as proposed here, may help explain the formation of learning capabilities in the emerging organization.

In conclusion, the objective of this article has been to start a debate on how to specify EL as a concept. EL researchers are invited to join the conversation, and the expectation is for EL scholarship to find convergence and be able to accumulate knowledge.

ENDNOTES

[1] The use of * by the end of search terms allowed for variation in their use. A separate database search was performed with the keywords: "*entrepreneurial learning*" OR "*entrepreneur's learning*" in the article's title, capturing studies with a direct, explicit interest in EL.

[2] Journals such as Harvard Business Review were excluded due to their focus on practice.

[3] The second coder is an innovation/entrepreneurship scholar.

[4] Wang's and Chugh's review covered the period up until August 2012. Since then, 32 new EL articles have been published (as captured by the protocols of this review). A holistic analysis of these articles was undertaken, given that explicit definitions of EL were provided only infrequently (in 12 out of the 32 articles).

[5] According to Argyris and Schön (1978), a theory of action involves individuals' attempts to understand, explain and control their environments.

[6] Gerring's criterion of operationalization is not discussed as the development of a scale for EL is out of the scope of this article.

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