

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/344481930>

# Toward the Emergence of Entrepreneurial Opportunities: Organizing Early-phase New-venture Creation Support Systems

Article in *The Academy of Management Review* · October 2020

DOI: 10.5465/amr.2019.0040

CITATIONS

0

READS

467

3 authors:



**Sujith Nair**  
Umeå University

15 PUBLICATIONS 175 CITATIONS

[SEE PROFILE](#)



**Medhanie Gaim**  
Umeå University

18 PUBLICATIONS 82 CITATIONS

[SEE PROFILE](#)



**Dimo Dimov**  
University of Bath

99 PUBLICATIONS 4,461 CITATIONS

[SEE PROFILE](#)

Some of the authors of this publication are also working on these related projects:



Venture capital [View project](#)



Entrepreneurial action [View project](#)




---

# Review

---

## **TOWARD THE EMERGENCE OF ENTREPRENEURIAL OPPORTUNITIES: ORGANIZING EARLY-PHASE NEW-VENTURE CREATION SUPPORT SYSTEMS**

Journal:	<i>Academy of Management Review</i>
Manuscript ID	AMR-2019-0040-Original.R4
Manuscript Type:	Original Manuscript
Theoretical Perspectives:	Complexity and Systems theory, Industrial organization/economics, Social capital theory
Topic Areas:	Entrepreneurial Ecosystems < Entrepreneurship, Entrepreneurial opportunities (General) < Entrepreneurship Opportunities < Entrepreneurship, Incubators < New venture strategies < Entrepreneurship
Abstract:	Support systems for early venturing efforts need to be harmonious with the emergent nature of those efforts. With current literature treating the conceptions of new ventures as exogenous, there has been limited focus on the transition of venturing efforts from nebulous, open-ended, and accidental toward becoming scalable, focused, and deliberate. We develop a dynamic model for organizing support systems for the early phases of new-venture creation, where scattered ideas evolve into venture concepts as tokens, frames, and premises for further action. By viewing venturing efforts and opportunities as emergent and drawing on the literature on complexity and organizational space, we propose openness, self-selection, visibility, and connectivity as the defining characteristics for organizing support systems. In contrast to literature's predominant focus on a predictive, linear approach, we expand the theoretical scope of support systems to include organizing that is more attuned to the uncertain and nonlinear nature of new venture creation that they support. Our work has broader implications for organizing uncertain early-phase development processes.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

## Toward the Emergence of Entrepreneurial Opportunities: Organizing Early-phase New-venture Creation Support Systems

**Sujith Nair<sup>1</sup>**

Umeå University, Sweden

sujith.nair@umu.se

**Medhanie Gaim<sup>2</sup>**

Umeå University, Sweden

medhanie.gaim@umu.se

**Dimo Dimov**

University of Bath, UK

Reykjavik University, Iceland

d.p.dimov@bath.ac.uk

We would like to thank Associate Editor Sharon Alvarez, Editor Jay Barney and the three anonymous reviewers for their insightful and developmental comments. We also thank Tor Hernes, Thorbjørn Knudsen, Joep Cornelissen, Devi R. Gnyawali, Wendy Smith, Jim Andersén, Jessica Eriksson and Lucas Haskell for their valuable feedback on prior drafts. Earlier version of this paper was presented at the 2018 annual Academy of Management meeting in Chicago, IL.

Sujith and Medhanie would like to acknowledge the funding from Riksbankens Jubileumsfond (P19-0597:1) for partly supporting this research.

A video abstract of this paper can be found at

<https://www.youtube.com/watch?v=nDUZgGapMnM&feature=youtu.be>

---

<sup>1</sup>The corresponding author is Sujith Nair, Umeå School of Business, Economics and Statistics, Umeå University, Biblioteksgränd 6, 90187, Umeå, Sweden, email: Sujith.nair@umu.se

<sup>1,2</sup>The first and second authors contributed equally in developing the paper.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

## Toward the Emergence of Entrepreneurial Opportunities: Organizing Early-phase New-venture Creation Support Systems

### Abstract

Support systems for early venturing efforts need to be harmonious with the emergent nature of those efforts. With current literature treating the conceptions of new ventures as exogenous, there has been limited focus on the transition of venturing efforts from nebulous, open-ended, and accidental toward becoming scalable, focused, and deliberate. We develop a dynamic model for organizing support systems for the early phases of new-venture creation, where scattered ideas evolve into venture concepts as tokens, frames, and premises for further action. By viewing venturing efforts and opportunities as emergent and drawing on the literature on complexity and organizational space, we propose openness, self-selection, visibility, and connectivity as the defining characteristics for organizing support systems. In contrast to literature's predominant focus on a predictive, linear approach, we expand the theoretical scope of support systems to include organizing that is more attuned to the uncertain and nonlinear nature of new venture creation that they support. Our work has broader implications for organizing uncertain early-phase development processes.

**Keywords:** entrepreneurship; entrepreneurial opportunities; entrepreneurial ecosystems; emergence; new-venture creation.

1  
2  
3                   *“Every great entrepreneur can point to several coffee chats that opened doors,*  
4                   *sparked ideas, and formed important new relationships. The StartUp HERE*  
5                   *Toronto Café is focused on helping to easily build relationships between*  
6                   *entrepreneurs and drive Toronto's startup community. It is a place to connect*  
7                   *with peers, funders, and investors, subject matter experts, and just generally great*  
8                   *people who have an interest in growing Toronto’s startup community.”* (StartUp  
9                   HERE Toronto Café, 2018).  
10  
11  
12  
13  
14  
15  
16

17           If we play the story of a new venture backward, we would see its gradual shrinking, the  
18           disappearance of its organizing elements or structures, dissolution into ideas and discourse  
19           among founding team members and early supporters, and – beyond the point at which various  
20           places, events, or situations bring those members together – scattering into disparate individual  
21           experiences and life stories. In this rewinding process, the precise structure and purpose of the  
22           venture dissolve into its disjointed pre-existence, in which no reliable tokens of its future  
23           existence can be found. Indeed, the further back we go, the more obscure the eventual pathway  
24           becomes. The progressive unfolding and forward revelation of the venturing process poses the  
25           question of how it can be supported and facilitated. This represents a significant organizing  
26           challenge given the uncertainty under which new ventures and opportunities emerge  
27           inextricably from amorphous yet purposeful interactions between entrepreneurs and their  
28           scattered ideas (Alvarez & Barney, 2005; Dimov, 2011). Therefore, in line with the principle  
29           of requisite variety (Ashby, 1956), any support system for early venturing efforts requires  
30           consonance with the uncertain and nonlinear nature of those efforts. Not every effort will  
31           succeed, but entrepreneurial success can come from anywhere.  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49

50  
51           Support systems are organizations, such as incubators, accelerators, maker spaces, and  
52           startup cafes, within an entrepreneurial ecosystem that facilitate new-venture creation by  
53           providing essential resources (Amezcuca, Grimes, Bradley, & Wiklund, 2013; Autio,  
54           Nambisan, Thomas, & Wright, 2018; Feldman, Siegel, & Wright, 2019). When considering  
55  
56  
57  
58  
59  
60

1  
2  
3 support for new venture creation; we can distinguish two qualitatively different, yet conflated,  
4 phases to the process. An *early* phase culminates with an articulation of the elements of a  
5 concept for a venture – that emerges from the scattered ideas, behaviors, and intentions of  
6 prospective entrepreneurs – as a holistic token, frame, and premise for further action (Dimov,  
7 2020; Vogel, 2016). The venture concept’s role as a token enables the entrepreneurs to refer to  
8 what they are doing; as a frame, it serves to organize their further actions and define aspirational  
9 milestones; and its nature as a premise suggests that it is tentative and likely to evolve with  
10 new developments. A subsequent *late* phase involves developing elements of the venture  
11 concept toward achieving what the entrepreneurial community calls “product-market fit” as a  
12 gateway to ultimate opportunity realization (McDonald & Gao, 2019; Shankar & Shepherd,  
13 2019).

14  
15 Ignoring the vital distinction between early and late phases and the resulting conflation  
16 will result in a mismatch where the nature of “organizing” the support system will not reflect  
17 the “organized” and the “organization” of what it supports. The focus in research (see, for  
18 example, Clayton, Feldman, & Lowe, 2018; Cohen, Bingham, & Hallen, 2019; Pauwels,  
19 Clarysse, Wright, & Van Hove, 2016) has been on organizing in terms of supporting new  
20 ventures along their more deliberate trajectories, overlooking the early phases, such as those  
21 taking place at the StartUp HERE Toronto Café. Accordingly, the venture conceptions are  
22 treated as exogenous, as given, and ready to be picked up by late-phase support systems such  
23 as incubators, raising essential questions about the formation and quality of their selection pool.  
24 Without a clear and in-depth discussion of how the two phases differ, and corresponding  
25 knowledge on how to organize support systems, scholars might treat them as congruent  
26 phenomena and overlook the distinctive processes underlying each. In this regard, we direct  
27 attention to the underlying processes that help us understand the behavior and organizing  
28 features of the early-phase support systems, and pose the following research question: *How*  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 *can support systems be organized to enable the actions and interactions of prospective*  
4  
5 *entrepreneurs toward the emergence of venture concepts?*  
6  
7

8 The focus on *early-phase* support systems, defined as organizations facilitating the  
9  
10 emergence of venture concepts as gateways to entrepreneurial efforts, invites attention to a  
11  
12 wide range of empirical phenomena such as startup cafes, startup weekends, startup campuses,  
13  
14 innovation boot camps, and hackathons, which remain undertheorized. The early phase  
15  
16 development processes in these settings are vital to new venture creation because they give rise  
17  
18 to requisite variety, integration across ideas, and success in uncertain environments (Adner &  
19  
20 Levinthal, 2008; Alvarez, Barney, & Anderson, 2013; Brown & Eisenhardt, 1997; Dougherty  
21  
22 & Dunne, 2012). The early phase of new venturing is uncertain (Alvarez & Barney, 2005;  
23  
24 Townsend, Hunt, McMullen, & Sarasvathy, 2018) and non-linear, where changing one part of  
25  
26 the configuration generates unpredictable outcomes (Mcmullen & Dimov, 2013; Selden &  
27  
28 Fletcher, 2015). As such, our conception of the early-phase support system reflects the nature  
29  
30 of new venturing that it supports. This conception differs from that of the existing literature,  
31  
32 whose predominant focus has been on organizing around predictive selection and matching  
33  
34 (Aaboen, 2009; Aerts, Matthyssens, & Vandenbempt, 2007), where new ventures progress  
35  
36 towards set goals following sequential and often standardized processes (Bergek & Norrman,  
37  
38 2008; Clayton et al., 2018; Cohen et al., 2019).  
39  
40  
41  
42  
43

44 We conceptualize how non-linear and non-predictive (Packard & Clark, 2019) ways of  
45  
46 organizing early-phase support systems enable the actions and interactions of prospective  
47  
48 entrepreneurs toward the emergence of venture concepts as gateways for further, more  
49  
50 deliberate action. Our framework generates insights for organizational interventions that  
51  
52 facilitate the simultaneous self-selection of entrepreneurs (Lazar et al., 2020) and the non-  
53  
54 predictive emergence of opportunities in the new-venture creation process. It demonstrates how  
55  
56 the interplay between the organizing characteristics of openness, self-selection, visibility, and  
57  
58  
59  
60

1  
2  
3 connectivity creates the potential for venture concepts to emerge. Further, our theorizing has  
4  
5 broader implications for organizing in settings where uncertain early-phase development  
6  
7 processes are prominent.  
8  
9

### 10 **ENTREPRENEURIAL OPPORTUNITIES**

11  
12 Given a focal new venture as a productive entrepreneurial effort, the sense of  
13  
14 entrepreneurial opportunity arises from the desire to understand and explain the venture's  
15  
16 emergence where some while ago it did not exist. First, from the perspective of creating a new  
17  
18 venture, various elements need to come together: i.e., a product or service and the processes,  
19  
20 materials, and actors involved in its production and market exchange. Thus, the opportunity  
21  
22 can be described in terms of a specific business model or arrangement of artifacts that make  
23  
24 the business viable (Berglund, Bousfiha, & Mansoori, 2020; Dimov, 2016; Selden & Fletcher,  
25  
26 2015). Second, from the perspective of the venture's competitive viability, the opportunity can  
27  
28 be described as a competitive imperfection that cannot necessarily be identified beforehand but  
29  
30 arises concurrently with the endogenous actions of entrepreneurial actors (Alvarez & Barney,  
31  
32 2005, 2007). Third, from a time perspective, the opportunity is expressed in the entrepreneurial  
33  
34 intent of an acting individual or team on an open-ended, nonlinear journey in which such  
35  
36 evolving intent may be the only constant (McMullen & Dimov, 2013). In combination, these  
37  
38 points suggest that an opportunity emerges endogenously through path-dependent and causally  
39  
40 ambiguous processes (Alvarez et al., 2013).  
41  
42  
43  
44  
45  
46

47 Viewing such gradual emergence alongside the acting entrepreneur – without whose action  
48  
49 the journey would not unfold – it becomes clear that the opportunity's articulation evolves from  
50  
51 a tentative idea prone to attracting skepticism to a focused pitch eliciting confidence and  
52  
53 commitment. While initial ideas are scattered and incomplete representations of the possible  
54  
55 future venture, and thus vague in regard to their value-creation potential, a venture concept  
56  
57 represents an intermediary articulation of that potential, inviting evaluation and refinement. In  
58  
59  
60



1  
2  
3 this regard, the venture concept – as the earliest articulation of the value-creation elements –  
4 represents a milestone in opportunity emergence (Vogel, 2016). At this early point, it serves as  
5 a reference to what the entrepreneur is doing, that can be articulated.  
6  
7  
8  
9

10 To the extent that we cannot know THE opportunity that will ultimately emerge from the  
11 entrepreneur's efforts, we refer to it as a venture concept. It acts as a watershed between an  
12 *early* phase of the venturing process, in which opportunities are but scattered, initial, and  
13 tentative ideas that coalesce in venture concepts, and a *late* phase, with deliberate efforts to  
14 refine, evaluate, and develop a specific venture concept. Thus, the venture concept creates a  
15 focal meaning for other actors (Garud & Giuliani, 2013), provides a frame for further action,  
16 and can be leveraged to acquire commitments or resources from them (Dimov, 2020). The  
17 early phase of opportunity emergence thus captures how scattered ideas are combined,  
18 recombined, and transformed into a more ordered and articulate venture concept. By  
19 emergence, we mean “the process by which patterns or global-level structures arise with  
20 interactive, local-level processes. This ‘structure’ or ‘pattern’ cannot be understood or  
21 predicted from the behavior or properties of the component units alone [...] In the doctrine of  
22 emergence, the combination of elements with one another brings with it something that was  
23 not there before.” (Mihata, 1997: 31).  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41

42 As emerging artifacts, opportunities can only be understood by considering how  
43 individuals and their knowledge are transformed (Lichtenstein et al., 2006). This  
44 transformation, which occurs through serendipitous and purposeful intersubjective interactions  
45 between heterogeneous actors, is uncertain and complex (Alvarez & Barney, 2005; Augier &  
46 Sarasvathy, 2004; Roundy, Brockman, & Bradshaw, 2017; Selden & Fletcher, 2015). We  
47 illustrate the notion of opportunity emergence through a stylistic and hypothetical example.  
48 Our reconstruction retrospectively traces events leading to realized opportunities from venture  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 concepts and venture concepts from initial scattered ideas, although we present the emergence  
4 prospectively for ease of analytical presentation as depicted in Figures 1 and 2.  
5  
6  
7

8 -----

9  
10 Insert Figures 1 and 2 about here  
11

12 -----  
13

14 Consider a chef (A) who has recently arrived in a city with dreams of becoming a food  
15 entrepreneur. At the city's university, a food scientist (B) has recently developed a new  
16 preservation technology as part of her study. She is considering how to make her technology  
17 useful. At the same university, a plant scientist (C) is independently working on forest  
18 microenvironment technologies. In a nearby institute, a forester (D) has been working for many  
19 years on new tree-planting patterns to improve their survival. All four individuals attend an  
20 initiative for startup creation hosted at the university.  
21  
22  
23  
24  
25  
26  
27  
28  
29

30 At time  $t_0$ , the assumption is that all four (A1, B1, C1, and D1) have initial ideas and  
31 intentions (represented by "1") before they interact. Some of them intentionally explore the  
32 possibilities their ideas present, while others do so by chance. At  $t_1$ , because of their similar  
33 professions, interaction ensues between the two scientists but does not produce a shared idea.  
34 However, the food scientist receives a new input from this interaction ( $B1 \rightarrow B2$ ), while the  
35 plant scientist does not ( $C1-C1$ ). At  $t_2$ , the food scientist interacts with the chef, while the plant  
36 scientist converses with the forester. At  $t_3$ , the chef and the food scientist connect at some level  
37 and manage to create a shared idea. As a result of this interaction, their ideas evolve ( $A1 \rightarrow A2$   
38 and  $B2 \rightarrow B3$ ). At this stage, an industrial designer (E) joins the conversation and takes the  
39 shared idea of the chef and the food scientist to the next level. Because the plant scientist and  
40 the forester do not connect, their interaction ends, but the forester has gained new insights into  
41 resolving some of the challenges she has been facing ( $D1 \rightarrow D2$ ). At  $t_4$ , the interactions between  
42 the chef, the food scientist, and the industrial designer lead to shared ideas (A3, B4, E2),  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 represented by the intersection of the three circles. This intersection of ideas, wherein they  
4 combine, recombine, and transform, gives rise to a venture concept "ABE"; this concept might  
5 be a subjective conceptualization in the three individuals' minds, but may also be inscribed as  
6 an artifact, such as a concept paper or merely a sketched diagram. The interactions between the  
7 chef, the food scientist, and the industrial designer might not have occurred automatically  
8 because of their disconnectedness and inherent heterogeneity. However, although random and  
9 nonlinear, their interactions were facilitated through interventions (e.g., through spatial  
10 dimensions). Early-phase support systems can, therefore, catalyze the emergence of venture  
11 concepts.  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22

23  
24 The new venturing phase, from the venture concept to realized opportunity, is well  
25 researched from the perspective of late-phase support systems, such as business incubators and  
26 accelerators. As Figure 2 shows, both internal and external interactions advance opportunities  
27 from venture concepts to their ultimate realization (Dimov, 2016). Internal interactions, such  
28 as interventions by business coaches, can enhance external interactions with potential  
29 customers, funders, and suppliers, and lead to acquiring new team members. These interactions  
30 might eventually lead to market desirability, operational or technical feasibility, and financial  
31 viability, thereby transforming an opportunity from an initial venture concept to something  
32 actually instituted in the market.  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43

#### 44 **LINEAR AND PREDICTIVE VIEW OF SUPPORT SYSTEMS**

45  
46 An entrepreneurial ecosystem consists of multiple and overlapping sets of attributes and  
47 institutions, including physical spaces, networks, startup culture, and financing, that encourage  
48 entrepreneurial activity within a region (Spigel, 2017; Spigel & Harrison, 2018). Late-phase  
49 support systems, such as incubators and accelerators, are essential components of an ecosystem  
50 that facilitates new venture creation, by providing critical tangible and intangible resources  
51 (Clayton et al., 2018; Cohen et al., 2019; Spigel, 2017, p. 54). The temporal processes  
52  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 underlying incubators and accelerators are premised on new-venture creation as a staged  
4 lifecycle (Cardon, Zietsma, Saporito, Matherne, & Davis, 2005). Such a staged life cycle view  
5  
6 of organizing brings with it the notion of a prefigured trajectory from the beginning to the end-  
7  
8 stage based on institutional rules or programs that progress in a prescribed sequence (van de  
9  
10 Ven & Poole, 1995).

11  
12  
13  
14  
15 In both design and function, incubators and accelerators support startups in which a team  
16  
17 has supposedly formed around a ‘scalable idea’ (Nair & Blomquist, 2019). The venture  
18  
19 concepts are supposed to be formed already with limited effort made to increase the diversity  
20  
21 and quality of the ideas on which they are based. Incubators mostly rely on selection criteria  
22  
23 such as a written business plan, the idea’s innovativeness, growth prospects, team members’  
24  
25 coachability, and the team’s technical, managerial, and financial skills (Aaboen, 2009; Aerts  
26  
27 et al., 2007). Moreover, incubators rely on market interest and commercial viability (Bruneel,  
28  
29 Ratinho, Clarysse, & Groen, 2012; Nair & Blomquist, 2020; Rubin, Aas, & Stead, 2015) as a  
30  
31 means of moving the incubatees along the process. Accelerators employ a predesigned  
32  
33 curriculum and highly organized schedule for a cohort of competitively selected startups  
34  
35 (Pauwels et al., 2016). All these point to a linear and predictive approach where support system  
36  
37 managers make decisions regarding feasibility and scalability in a structured sequential  
38  
39 process. Viewing new-venture creation as staged life cycle process profoundly influences how  
40  
41 incubators and accelerators are organized. Although such organizing is meritorious on its own  
42  
43 way, it leaves little room for emergence.  
44  
45  
46  
47  
48

49  
50 In contrast, instead of support system managers or gatekeepers trying to predict feasibility  
51  
52 and team members’ ability – the predominant view – we promote a non-predictive approach  
53  
54 where opportunities emerge in non-linear interactions. We argue that a non-predictive approach  
55  
56 is better suited to the fast-changing and uncertain early phase of new-venture creation (Alvarez  
57  
58 & Barney, 2005; Alvarez et al., 2013; Dew, Read, Sarasvathy, & Wiltbank, 2008; Packard &  
59  
60

1  
2  
3 Clark, 2019; Sarasvathy, 2001). Such a focus has the potential to increase the quality of venture  
4 concepts that reach late-phase support systems: something that is neglected in the predominant  
5 organizing of support systems. In this area, we agree with Anderson, Meyer, Eisenhardt,  
6 Carley, & Pettigrew's (1999: 233) notion that "organizational scholars seldom come to grips  
7 with nonlinear phenomena; instead, they tend to model phenomena as if they were linear in  
8 order to make them tractable." This reductionist approach might constrain the natural  
9 emergence and flow of processes; attempting to harness the underlying complexities instead is  
10 desirable (Brown & Eisenhardt, 1997; Garud, Tuertscher, & Van de Ven, 2013). As highlighted  
11 above, in the staged lifecycle model of a support system, the nonlinear interactions that  
12 characterize opportunities' emergence are *abstracted away* for the sake of analytical  
13 tractability, despite nonlinear interactions being key to the emergence of patterns (in our case,  
14 opportunities). Our paper thus aims to theorize the organizing of early-phase support systems  
15 that enable prospective entrepreneurs to interact toward the emergence of entrepreneurial  
16 opportunities.

### 35 **TOWARD NON-LINEAR AND NON-PREDICTIVE VIEW OF EARLY-PHASE** 36 37 **SUPPORT SYSTEMS** 38

39  
40 We conceptualize the early-phase support system as complex and adaptive, given: (1) the  
41 heterogeneity among actors, (2) actors' interrelationships and interactions, (3) openness to its  
42 environment, and (4) its capacity to learn, change, and adapt from experience. Complex  
43 adaptive systems comprise many interacting parts that evolve and adapt over time (Holland,  
44 1992). Because the cause-effect relationships are nonlinear and the actions of some parts affect  
45 those of others, the overall system shows emergent properties that cannot be understood by  
46 referring to individual behaviors (Cilliers, 2002; Holland, 1992; Kauffman, 1996; Waldrop,  
47 1992).

1  
2  
3 When applying the complex adaptive systems view to organizing (Axelrod & Cohen,  
4 1999; Lewin, 1999; Miller & Page, 2007; Stacey, 2007), it is crucial to consider four  
5 interrelated elements (Anderson, 1999): first, the presence of actors with a cognitive structure  
6 in a system, who, given their perception of the environment, could be purposive and responsive,  
7 rather than constrained by fixed rules. Second, maintaining a self-organized state that requires  
8 importing energy and information into the system (Prigogine & Stengers, 1984; Stacey, 2007:  
9 194). Third, as the actors coevolve together, the system moves toward the ‘edge of chaos’ i.e.  
10 it acquires the “ability to bring order and chaos into a special kind of balance” (Eisenhardt &  
11 Brown, 1998; Waldrop, 1992: 12). Finally, as a complex adaptive system, it will evolve  
12 through the entry, exit, and transformation of actors (Anderson, 1999: 225). We now discuss  
13 how these elements, when taken together, inform our conceptualization of the early-phase  
14 support system.  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29

30 In our conceptualization of the early-phase support system, there are two main sets of  
31 actors. The first are "prospective entrepreneurs," who enter the support system to access its  
32 resources and engage in interactions with others, hoping for a role in the opportunities and  
33 ventures emerging within. The second are "moderators," who intervene and facilitate  
34 interactions within the support system. The actors’ cognitive structure determines what actions  
35 they take as they follow their own implicit rules, informed by their experience, emotions, and  
36 beliefs. However, being adaptive actors, these initial rules transform in interactions via  
37 feedback, as the actors learn and improve themselves based on what other actors are doing  
38 (Hazy & Uhl-Bien, 2015; Stacey, 2007: 152; Waldrop, 1992: 147). As the actors coevolve,  
39 experience strengthens their useful behavioral rules, weakens unhelpful ones, and causes new  
40 rules to emerge from combinations and recombination of old ones (Holland, 1992; Waldrop,  
41 1992: 193). Accordingly, the support system moves toward the edge of chaos. The equilibrium  
42 that results from such coevolution is dynamic: always unfolding, and in transition (Waldrop,  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 1992: 147). Such a process helps the support system to maintain a self-organized state, because  
4  
5 it maintains enough balance for “its components [to] never quite lock into place, and yet never  
6  
7 quite dissolve into turbulence” (Prigogine & Stengers, 1984; Stacey, 2007: 194; Waldrop,  
8  
9 1992: 12).

10  
11  
12 As shown in Figure 1, the ideas of prospective entrepreneurs metaphorically bounce: when  
13  
14 they intersect, they create a synergetic outcome; even when they do not intersect, they create a  
15  
16 lasting effect on some, while not changing others. These initially unforeseen interactions tend  
17  
18 to shift the nonlinear into patterns creating emergent substructures within the support system  
19  
20 (Lewin, 1999: 215). Substructures are, therefore, transient patterns that take shape within the  
21  
22 space of the support system, self-organizing *en route* to forming venture concepts (and  
23  
24 eventually new ventures). As they form in interactions, these substructures give rise to the  
25  
26 emergent property of a venture concept as a holistic token, frame, and premise for further  
27  
28 action. Figure 1 shows the substructure of individuals A, B, and E, forming the venture concept  
29  
30 "ABE" as the interaction transforms actors and their ideas. Together, the evolving inner  
31  
32 substructures and the outer support system form an emergent whole where they mutually  
33  
34 influence each other, and one’s existence might be indispensable to the other (Walloth, 2016:  
35  
36 22–25).

### 41 42 **Spatial Dimensions of the Support System**

43  
44 Central to complex systems is the concept of space, within which relationships emerge  
45  
46 (Nonaka et al., 2006) and opportunities form as actors act and interact (Axelrod & Cohen,  
47  
48 1999: 73). Space is casually interpreted as a dimension “inside which things happen” (Hernes,  
49  
50 2004a: 64), formed through a “boundary-setting...distinction-drawing operation” (Hernes,  
51  
52 Bakken, & Olsen, 2006: 45; Luhmann, 1995). Organizational space could be analyzed along  
53  
54 its different types, i.e. physical, social, and mental (Hernes, 2004a); or different conceptions,  
55  
56 i.e. as distance, the materialization of power, and experience (Taylor & Spicer, 2007). Taken  
57  
58  
59  
60

1  
2  
3 together, they explain access, control, inclusion, exclusion, and acceptability, within tangible  
4 and intangible boundaries (Hernes, 2004b, 2004a; Taylor & Spicer, 2007; Weinfurter & Seidl,  
5 2019). Moreover, as much as space affects how interactions occur, interactions also inform  
6 how spaces are configured (Hernes, 2004a; Kornberger & Clegg, 2004). This recursive  
7 relationship between actions and space helps us explain (later in the paper) how substructures  
8 emerge within the support system.  
9

10  
11  
12  
13  
14  
15  
16  
17 Physical space refers to “tangible structures created principally...to regulate work and  
18 interaction” (Hernes, 2004a: 71). Within a support system, space can be designed – in terms of  
19 proximity and accessibility – to facilitate spontaneous interactions between two prospective  
20 entrepreneurs with different expertise and interests. In our example, the startup event could be  
21 equally accessible to the chef unfamiliar with the university and the scientist working there.  
22 Social space involves trust, identity, and behavioral norms (Hernes, 2004a: 71–72), and is  
23 “relations-based,” as a “network of relations...[it] regulates much of what is going on” (Hernes,  
24 2004a: 71). Within support systems, social space gives signals about hierarchy, status, and  
25 appropriate behavior that members come to adopt (Hernes, 2004a; Taylor & Spicer, 2007).  
26 Mental space is the “space of thought,” including “knowledge, learning, and sensemaking”  
27 (Hernes, 2004a: 72). Actors might differ in how they make sense of space. In our example, the  
28 organized space in the university startup event is experienced differently by the scientist, the  
29 forester, and the chef.<sup>2</sup>  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49

---

50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
<sup>2</sup> Digital and virtual tools form the bases for most interactions in today’s businesses, and we argue that the support system is no exception. With our formulation of physical space as a material, the materiality can be text, numbers, personas, or schemas on a screen. For this study’s purposes, we acknowledge that digital tools are embedded in the physical spaces discussed herein. Digital tools’ impact on the (blurring of) boundaries of the space is uncontested. For example, boundaries are made up of electronic means that regulate access to certain electronic domains. However, how the digital tools specifically affect the actions and interactions of actors toward the emergence of venture concepts is beyond this paper’s scope. With the advent of COVID19, we are witnessing the virtual replacing the physical. An example of digital support systems being the ‘Hack the Crisis’ initiatives taking place globally and the thousands of venture concepts that emerged from them. With the ‘forced’ digitalization and



1  
2  
3 The configuration of space within the support system brings its boundaries to the forefront  
4 for boundaries make different spaces distinct (Weinfurtner & Seidl, 2019: 14). Boundaries  
5 “demarcate distinct organizational spaces and can thus determine the inclusion or exclusion of  
6 actions and influence organizations and organizing” (Weinfurtner & Seidl, 2019: 4). The early  
7 and later phase support systems can be explained as two distinct spaces, for example. It is  
8 within such space that interactions occur through collaboration and converging interests  
9 between various actors (Coenen, Benneworth, & Truffer, 2012; Hernes, 2004a). In our setting  
10 of support systems, when the boundary is permeable, it allows a continuous flow of energy and  
11 a critical mass to develop toward self-organizing (Anderson, 1999: 223; Smith & Comer, 1994;  
12 Stacey, 2003). Whether permeable or otherwise, boundaries define the space that actors create,  
13 recreate, and reside in (Hernes, 2004b) and express what is ‘needed’ to get into the space. The  
14 support system’s boundaries are, therefore, related to the space that is defended, promoted, and  
15 integrated (Hernes, 2004a) as they are constructed and reconstructed.

### 33 **Interventions in the Support System**

34  
35 The support system is not stand-alone; its functioning requires some form of intervention to  
36 influence behavior. Intervention should reflect the characteristics of the targeted phenomenon  
37 (Lewin, 1999), namely the emergent and uncertain nature of new venture creation. We  
38 conceptualize ‘moderators’ as the actors who intervene by facilitating interactions in the  
39 bottom-up emergence of opportunities within the support system. Importantly, the moderators  
40 neither control top-down nor create *a priori* conditions for emergence. In our case, moderators  
41 can neither predict the consequences of their actions (Axelrod & Cohen, 1999: 13) nor control  
42 the direction or envision the specifics or outcome of emergence (Anderson, 1999; Drazin &  
43 Sandelands, 1992). However, their role is not inert (Hazy & Backström, 2013; Plowman et al.,  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54

---

55  
56  
57  
58 availability of digital platforms to collectively solve grand challenges, exploring how digital tools and spaces  
59 shape the actions and interactions of actors’ is an interesting area for future research.  
60

1  
2  
3 2007): their *raison d'être* is to facilitate, so they constrain the support system by, for example,  
4 setting simple rules that might lead to emergent behavior (Cilliers, 2002: 97; Waldrop, 1992:  
5 266). Without moderators, the support system would be too chaotic, producing so much activity  
6 that nothing is stable, and structures would collapse almost immediately after forming  
7 (Waldrop, 1992: 226).<sup>3</sup>

8  
9  
10  
11  
12  
13  
14  
15 Actors initially follow their own interaction rules; as a result, their diverse interaction  
16 patterns could make the system too chaotic and liable to be overwhelmed by change (Burnes,  
17 2005). Intervention should prevent interactions based solely on the actors' own rules; at the  
18 same time, it should also allow for the chance and randomness in entrepreneurial interactions  
19 that those rules could generate (Bouchikhi, 1993; Peterson & Meckler, 2001). The individual  
20 entrepreneur's behavioral characteristics are significant, because resource allocation is driven  
21 by the "dynamic, institutionally embedded interaction between entrepreneurial attitudes,  
22 ability, and aspirations" (Ács, Autio, & Szerb, 2014: 479). Furthermore, it is also crucial to  
23 facilitate the right context, such as acceptance of failure and risk-taking and creating and  
24 maintaining an atmosphere of trust and proximity, that encourages sharing scarce resources.  
25 Thus, there should be openness to bottom-up processes, acceptance of effective equifinal  
26 outcomes, and moderation of dysfunctional tension.

27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42 Being adaptive actors, the moderators learn, change, and store this knowledge. With the  
43 support system being a non-deterministic system, rules change as people learn (Stacey, 2007:  
44 222), preventing it from settling down to best practices. This is of consequence because, given  
45 the heterogeneity of prospective entrepreneurs and their ideas, and the non-linear interactions  
46 that take place, the patterns of opportunity they create might differ each time, making the

---

47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
<sup>3</sup> Without moderators, the support system we conceptualize would be akin to an academic conference with no tracks or rules, and open to everyone. This might attract plenty of heterogeneous actors, but their interactions are unlikely to lead to something useful emerging. Although chaos is necessary, it is unproductive without moderators (see, for example, Cilliers, 2002: 97). We thank an anonymous reviewer for highlighting this point.

1  
2  
3 moderators' role dynamic. The substructures and the venture concepts emerge from lower-  
4 level interactions that moderators intervene to facilitate (Axelrod & Cohen, 1999; Gupta,  
5 Tesluk, & Taylor, 2007; Hazy & Uhl-Bien, 2015; Kogut, 2000). For moderators, the pursuit of  
6 a support system existing at the edge of chaos means utilizing simple emergent adaptive rules  
7 and learning-centered evolution (Waldrop, 1992: 184), rather than fixed rules, allowing for  
8 interesting interactions to take place. Therefore, it is not the outcome but, instead, the  
9 propensity or potential for desirable interactions that are facilitated. Under such circumstances,  
10 spatial arrangements could induce interactions between individuals who, under normal  
11 circumstances, would not have interacted; this can be as simple as placing a coffee machine at  
12 a specific corner to create the potential for spontaneous interactions (Fayard & Weeks, 2007;  
13 Gaim, Wåhlin, & Jacobsson, 2019; Kornberger & Clegg, 2004). Although interactions and  
14 their outcomes cannot be predicted, the potential for them can, thus, be created by design. In  
15 combination, these factors either enable or constrain human interaction, thus influencing the  
16 emergence of venture concepts.

### 35 ORGANIZING EARLY-PHASE SUPPORT SYSTEMS

36  
37 In this section, we discuss our model of organizing support systems that enable the  
38 emergence of venture concepts *en route* to realized entrepreneurial opportunities, as depicted  
39 in Figure 3.  
40  
41  
42  
43

44  
45 -----  
46  
47 Insert Figure 3 about here  
48  
49 -----  
50

51 Before discussing our model, we first outline the assumption that underlie our core arguments.  
52 Actors in the entrepreneurial process display “an openness, orientation, and drive toward  
53 seeking out new situations and possibilities and trying new things” (Mitchell, Smith,  
54 Seawright, & Morse, 2000: 978) and in doing so, are willingly susceptible to social influence  
55  
56  
57  
58  
59  
60

1  
2  
3 and persuasion (Augier & Sarasvathy, 2004; Secchi, 2009; Simon, 1959, 1993). In this regard,  
4 they place trust on the other and thereby make themselves vulnerable to the actions of another  
5  
6 (Korsgaard, Brower, & Lester, 2015; Mayer, Davis, & Schoorman, 1995). While engaging in  
7  
8 an uncertain and boundedly rational process such as early-phase new-venture creation, this  
9  
10 behavior brings “a possible fitness advantage to be realized in social organizations and societies  
11  
12 that transmit useful instructions to individuals” (Knudsen, 2003: 240). In general, therefore,  
13  
14 we assume that there will be an inclination among prospective entrepreneurs to be trustful of  
15  
16 others and engage in interactions with them. However, how this initial trusting behavior further  
17  
18 develops depends on the dynamic nature of trust and how it is shaped by the interventions and  
19  
20 interactions within the support system.  
21  
22  
23  
24  
25

26  
27 Given the uncertain and temporary nature of the entrepreneurial process in the early  
28  
29 phases, our assumption rests on the notion that without trust, there will not be a support system  
30  
31 or any form of organizing. In a context where different parties have to fulfill their role (albeit  
32  
33 unspecified) for a relationship to work, trust plays a significant role. Given the context where  
34  
35 the outcome is not predetermined, using a contract to safeguard those involved from  
36  
37 opportunism (Lui & Ngo, 2004) would be near impossible. For instance, the benefits from a  
38  
39 “good” idea shared and developed within the support system could ultimately be  
40  
41 disproportionately appropriated by someone else. Conversely, there might be costs for not  
42  
43 entering, or even exiting prematurely, given the high search costs outside (Dew, 2009; Fiet,  
44  
45 1996) and the missed possibility to be part of an emerging opportunity (Sarasvathy & Dew,  
46  
47 2005; Sarasvathy & Venkataraman, 2011). Not participating for fear of opportunism would be  
48  
49 similar to not entering a tournament for the risk of losing, which does not characterize life –  
50  
51 both personal and organizational.  
52  
53  
54

55  
56 The nature of opportunism faced within the support system could be real or perceived.  
57  
58 Opportunism, in the real sense, is related to free-riders: the takers who “try to get other people  
59  
60

1  
2  
3 to serve their ends while carefully guarding their own expertise and time” (Grant, 2013: 90).  
4  
5 However, any rent to be opportunistically realized from the emergence of venture concepts  
6  
7 might be non-existent initially as the ‘cake is not yet baked,’ reducing the chance for  
8  
9 opportunism. Moreover, in the early phase, initial disparate ideas have less chance of being  
10  
11 stolen because ideas are cheap, and it is the stock of means to realize their potential that is the  
12  
13 valuable asset (Sarasvathy, 2001; Wiltbank, Dew, Read, & Sarasvathy, 2006).  
14  
15

16  
17 As interactions within the support system progress, being a learning and adapting  
18  
19 system, it will eventually drive out free-riders as those who feel taken advantage of might seek  
20  
21 to exit the relationships over time (Korsgaard et al., 2015). The interactions within the support  
22  
23 system will create enough memory of their opportunistic behavior (Cilliers, 2002: 95),  
24  
25 preventing them from further engagement. Moreover, besides cooperation, there will be  
26  
27 competition among prospective entrepreneurs to participate in what they consider the best ideas  
28  
29 and behaviors: because they are limited, the bad ones would be selected out based on expressed  
30  
31 behavior (Levinthal & Marino, 2015). Thus, a cooperative and mutually trusting (Korsgaard et  
32  
33 al., 2015) environment emerges over time, where the behavioral repertoires of prospective  
34  
35 entrepreneurs “are biased toward cooperation, rather than opportunism” (Hill, 1990: 511).  
36  
37 Despite this, however, the perception that opportunism exists is inherent in uncertain early-  
38  
39 phase relationships. The moderators could intervene to reduce the perception of opportunism  
40  
41 by creating a trustful environment that would reassure the prospective entrepreneurs. We  
42  
43 elaborate on these interventions in the later sections. We now discuss the core of our model in  
44  
45 relation to organizing support systems, along with our propositions.  
46  
47  
48  
49

### 50 51 **Openness and Self-Selection**

52  
53 Openness relates to the nature of the boundaries demarcating an organization’s social  
54  
55 structure (Kogut, 2000). The degree of openness implies an organization’s membership in  
56  
57 terms of inclusion and exclusion (Dutton, Dukerich, & Harquail, 1994; Santos & Eisenhardt,  
58  
59  
60

1  
2  
3 2005). Although organizations are generally variety-reducing entities (Kogut, 2000), their  
4 boundaries are open to the extent needed to generate heterogeneity for divergent perspectives  
5 and ideas. In general, heterogeneity refers to the differences between individuals in terms of  
6 their knowledge, prior experience, behavior, traits, and preferences. Openness allows for not  
7 just heterogeneity, but also the similarities sought by prospective entrepreneurs engaging in  
8 new-venture creation (Lazar et al., 2020).  
9

10  
11  
12  
13  
14  
15  
16  
17 In the support system, openness refers to the conditions enabling the inclusion of  
18 heterogeneous prospective entrepreneurs within its boundaries. The meeting of these  
19 heterogeneous actors' divergent ideas, perceptions, skills, knowledge, experience, and abilities  
20 is desirable, because the synthesis of what emerges from these interactions is typically superior  
21 to individually held ideas. Moreover, the heterogeneity generated by open boundaries of the  
22 support system reduces the search, communication, and coordination costs of the social  
23 interactions. As a complex adaptive system, setting the boundaries to allow the flow of  
24 resources – in the form of people and their ideas – promotes a conducive environment for  
25 spontaneous self-organization into complex structures such as teams, which concomitantly  
26 evokes the emergence of venture concepts. Too much openness, however, will result in  
27 unmanageable heterogeneity, with highly random interactions and chaos ensuing (Carroll &  
28 Burton, 2000). Moreover, as resources such as moderators and space would be limited,  
29 unmanageable openness would reduce the support system's effectiveness. Given these  
30 limitations, the moderators could use simple rules that facilitate openness, but restrict its degree  
31 of freedom (Cilliers, 2002: 97; Waldrop, 1992: 266) using spatial configurations.  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49

50  
51 Heterogeneity is also reflected in the varying intentions of prospective entrepreneurs:  
52 systematic exploration, spontaneous recognition, and pre-discovery (Dew, 2009). *Systematic*  
53 *exploration* happens when a potential entrepreneur actively searches for an invention, or an  
54 inventor actively seeks innovation possibilities. In *spontaneous recognition*, an individual  
55  
56  
57  
58  
59  
60

1  
2  
3 might encounter a scientific invention that they recognize as a potential innovation. *Pre-*  
4 *discovery* is when contingency and search overlap without prior knowledge. An individual  
5 might be unaware of the potential commercialization of their invention, and so store it for  
6 potential future use (Garud & Nayyar, 1994) or never ultimately commercialize it. In the  
7 context of openness creating the potential for interactions between these heterogeneous  
8 prospective entrepreneurs, it is necessary to identify ways in which they can be brought  
9 together to interact within the support system.

10  
11  
12 Following the complexity sciences literature, we argue that a sufficiently open support  
13 system allows the entry, exit, and transformation of prospective entrepreneurs, with the  
14 resulting dynamism leading to evolving patterns of interconnections and, therefore, a sense of  
15 emergent order (Anderson, 1999; Carlile, 2004; Chiles, Meyer, & Hench, 2004; Plowman et  
16 al., 2007). Prospective entrepreneurs self-select into support systems, driven by their  
17 knowledge, aspirations, or serendipitous circumstances. They do so with nothing more than the  
18 resources they control, often in the form of prior knowledge or networks (Dimov, 2007; Read,  
19 Sarasvathy, Dew, & Wiltbank, 2016). An actor's self-selection is motivated by the chance to  
20 shape emerging opportunities or allow their ideas to be shaped into opportunities by other self-  
21 selected actors. As Rogers, Medina, Rivera, & Wiley (2005: 5) articulate, they gravitate "to the  
22 basin-like water flowing to a valley." The support system could channel this similized flow  
23 and prevent it from being a trickle or a deluge, as both impede new-venture creation.

24  
25  
26 The notions of self-selection and inclusion bring us to the boundaries defining the space  
27 the actors come into, create, inhabit, and recreate. Permeable boundaries allow a continual flow  
28 of energy into a system, as illustrated by the later entry of the industrial designer in Figure 1.  
29 Although the moderators cannot fully control the support system boundaries to define the  
30 heterogeneity within, because they do not know what the right composition should be,  
31 moderators could still rely on multiple mechanisms to facilitate the desired openness. They can  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 regulate the space's degree of permeability to set thresholds for entry, which could be malleable  
4  
5 in order to allow people and their ideas to move in and out (Hernes, 2004a) easily.  
6  
7

8 Interventions to manipulate boundaries can take different shapes and forms. For instance,  
9  
10 the moderators could announce a simple 'rule' that "on Monday, we discuss food  
11  
12 entrepreneurship; all interested are welcome." This rule would allow enough heterogeneity to  
13  
14 attract the chef, a food scientist, and a forester, as well as actors from other industries who  
15  
16 might want to contribute (such as an industrial designer) while filtering out those who are not  
17  
18 sufficiently interested in the topic. With open physical boundaries, prospective entrepreneurs  
19  
20 get the possibility of seeing the available resources within and the potential of what could be  
21  
22 achieved by taking part. This is analogous to signaling the availability of an "oven" and a  
23  
24 "variety of ingredients" for baking, but not predetermining who will bake, what they will bake,  
25  
26 or how.  
27  
28  
29

30 The social boundaries can also be manipulated to signal that diversity is welcome, or to  
31  
32 showcase the social assimilation of newcomers, thereby inducing other newcomers to join.  
33  
34 Similarly, mental boundaries can be manipulated to import people by availing and making  
35  
36 accessible ideas (visions or beliefs) that others might share, such as green technology or data  
37  
38 protection and online privacy. If a topic is too esoteric for someone outside the space (or  
39  
40 substructure) to participate in the discussion, the boundaries appear impenetrable, thus  
41  
42 dissuading them from seeking to move into the space. Esoteric topics can be translated into  
43  
44 more accessible terms to enable the majority within the support system to understand them.  
45  
46 From these arguments, we derive the following proposition:  
47  
48  
49

50  
51 ***Proposition 1a:*** *Modifying the support system's openness by manipulating its boundaries*  
52  
53 *facilitates the self-selection of heterogeneous prospective entrepreneurs.*  
54  
55

56 As prospective entrepreneurs self-select into the support system and form substructures  
57  
58 (e.g., "ABE" in Figure 1), boundaries emerge and reproduce through lower-level interactions  
59  
60



1  
2  
3 (Giddens, 1979; Hernes, 2004a). At the substructure level, openness refers to the boundaries  
4 being permeable for interactions between substructures within the support system (see Figure  
5  
6 4). Within a given space, actors create their own space, as illustrated by the substructure created  
7  
8 by A, B, and E at t4 in Figure 1. These emerging substructures exhibit similar characteristics  
9  
10 to their overarching support system, with similar complexity and adaptability, but at a lower  
11  
12 level (Zimmerman & Hurst, 1993). Within the support system, moderators could facilitate a  
13  
14 general atmosphere of openness with permeability across levels for self-selected actors. To  
15  
16 achieve this, the moderators could intervene to place the substructures in a state of flux before  
17  
18 they stabilize temporarily or permanently. Interaction across boundaries can be created by  
19  
20 design and is manifest in the physical space (e.g., open workspace), mental space (e.g.,  
21  
22 promoting generosity of sharing ideas and beliefs), and social space (e.g., culture, informal  
23  
24 interactions), which are often tied together. For instance, open space symbolizes munificence  
25  
26 (Taylor & Spicer, 2007), and might lead to more interactions, whereas a closed space  
27  
28 symbolizes privacy and control (Hatch, 1990), and is less likely to facilitate spontaneous  
29  
30 interactions.

31  
32  
33  
34  
35  
36  
37  
38 Openness makes the substructures dynamic: initially fuzzy, shifting, continually  
39  
40 recombining, and changing shape, until a semblance of stability is reached through learning  
41  
42 and adaptation. At the beginning of their formation, the substructures are evolving and in a  
43  
44 constant state of flux, as heterogeneous prospective entrepreneurs with varying emotions,  
45  
46 beliefs, interests, and preferences interact. Based on these heterogeneous factors, they may  
47  
48 decide to stay or leave a substructure and explore options in other emerging substructures as  
49  
50 they engage in interactions. At this stage, it is less costly to leave than to stay in a nascent  
51  
52 substructure because a prospective entrepreneur would not have invested much time and  
53  
54 energy, and staying in a substructure with less potential for contributing and gaining is futile.  
55  
56 Also, at this stage, the openness of substructures is important, because it allows actor  
57  
58  
59  
60

1  
2  
3 interactions and movement across boundaries. Without openness and cross-boundary  
4 interactions, the only option would be to stay in a subpar environment or leave the support  
5 system entirely. The substructures' fluidity enables prospective entrepreneurs to learn and  
6  
7  
8 select a substructure where their contribution would be more valuable.  
9

10  
11  
12 The spatial configuration of the support system can be designed to encourage members to  
13 move and spontaneously interact while maintaining a sense of order. As prospective  
14 entrepreneurs in the complex, adaptive support system change to their advantage, they  
15 coevolve to the edge of chaos. Thus, with openness, naturally occurring self-organization  
16 results from nonlinear interactions, which themselves occur as substructures import energy in  
17 from other substructures and the surrounding space<sup>4</sup> (as shown in Figure 4). This leads to the  
18 following proposition:  
19  
20  
21  
22  
23  
24  
25  
26  
27

28 ***Proposition 1b:*** *Modifying the substructures' openness by manipulating their boundaries*  
29 *facilitates the self-selection of heterogeneous prospective entrepreneurs.*  
30  
31  
32  
33  
34

35 -----  
36  
37 Insert Figure 4 about here  
38  
39 -----  
40  
41

## 42 **Visibility and Connectivity**

43

44 Openness creates the potential for bringing together actors with varying intentions and  
45 means of contributing. However, for this potential to be realized, they should interact with each  
46 other, which the intervention should aim to bring about. Providing exact and filtered matches  
47 would be a unidimensional and deterministic approach, overlooking that opportunities emerge  
48  
49  
50  
51  
52  
53  
54  
55

---

56  
57 <sup>4</sup> As shown in Figure 4, some substructures may have impermeable boundaries where actors are unable or  
58 unwilling to interact with others. As such, there are high thresholds, which means such substructures strictly  
59 regulate what crosses their boundary (Hernes, 2004b).  
60

1  
2  
3 during serendipitous moments and deliberate searches (Murphy, 2011; Shane, 2008: 69–70).  
4  
5 Enough information about active searching could exist only in the form of systematic  
6  
7 exploration (see Dew, 2009), because actors with such intentions could have predefined notions  
8  
9 about what they are seeking. Nevertheless, moderators might not have the required knowledge  
10  
11 to evaluate search needs, leaving limited available options to bring them together. In the  
12  
13 complex and uncertain situation that characterizes early-phase support systems, moderators  
14  
15 could facilitate nonlinear interactions by helping actors to reveal their entrepreneurial  
16  
17 intentions. The visibility created through the revelation of entrepreneurial intentions would  
18  
19 induce interested prospective entrepreneurs to converge and interact.  
20  
21  
22  
23

24 The open and free sharing of ideas will not be practical if the necessary conditions, such  
25  
26 as a trustful environment that helps reduce the perception of opportunism, do not exist  
27  
28 (Abrams, Cross, Lesser, & Levin, 2003). In general, people are willing to place their trust in  
29  
30 an institutional environment, even without prior experience of dealing with the participants  
31  
32 (Mcknight & Chervany, 1998; Welter, 2012). Given its bidirectional nature (Korsgaard et al.,  
33  
34 2015), trust “is neither chosen nor embedded, but is instead learned and reinforced as a product  
35  
36 of ongoing interaction and discussion” (Powell, 1996: 63). However, in uncertain environments  
37  
38 with few antecedents, this adaptive generation of trust takes place only in an atmosphere of  
39  
40 early and swift collective trustworthiness (Kramer, 1999).  
41  
42  
43  
44

45 An atmosphere of trust is necessitated because moderators need to intervene in ways that  
46  
47 accentuate the quality of interaction, rather than merely increasing interaction frequency. To  
48  
49 facilitate an atmosphere of early trust within the support system, the moderators could use  
50  
51 multiple mechanisms. Trust as behavior could flow across levels: organization-level trust could  
52  
53 be internalized and cascade down to create trust between individuals (Kramer, 1999; Miller &  
54  
55 Smith, 1993). Thereby, openness at the support-system level could induce trust, as the system’s  
56  
57 trust in prospective entrepreneurs could lead them to trust other actors. Initial trust can also be  
58  
59  
60

1  
2  
3 generated by having, for instance, a common name tag that identifies each individual entering  
4 the support system as an “entrepreneur.” Being an entrepreneur, as a shared social identity,  
5 could increase trust among the individuals by fostering a collective identity (Korsgaard et al.,  
6 2015). Previous participants – preferably successful – could also be asked to convey to  
7 newcomers how they benefited from a trustful environment that enabled the open sharing of  
8 ideas. Thus, establishing swift early trust could help moderators facilitate each prospective  
9 entrepreneur to reveal their ideas and intentions.

10  
11  
12 Keeping the level of visibility in mind, the moderators could take advantage of the early  
13 collective trust by using simple rules like “post your interests, skills, strengths, and  
14 competencies on the common board” or by asking prospective entrepreneurs to introduce  
15 themselves, their intention and skills on the podium, thus ensuring visibility across the support  
16 system. The visibility so created could spur interactions: for instance, although a chef with  
17 minimal social ties entering the support system could be initially overwhelmed by its diversity,  
18 the heightened visibility of a food scientist seeking to commercialize new food preservation  
19 technologies could elicit the chef’s engagement. In the atmosphere of trust established,  
20 prospective entrepreneurs share, thereby collectively and synergistically creating a generative  
21 space that fosters otherwise unavailable options.

22  
23  
24 ***Proposition 2a:*** *Self-selected prospective entrepreneurs are more likely to reveal their*  
25 *entrepreneurial intentions as moderators foster an atmosphere of early trust, spurring*  
26 *interactions at the support system-level.*

27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100  
101  
102  
103  
104  
105  
106  
107  
108  
109  
110  
111  
112  
113  
114  
115  
116  
117  
118  
119  
120  
121  
122  
123  
124  
125  
126  
127  
128  
129  
130  
131  
132  
133  
134  
135  
136  
137  
138  
139  
140  
141  
142  
143  
144  
145  
146  
147  
148  
149  
150  
151  
152  
153  
154  
155  
156  
157  
158  
159  
160  
161  
162  
163  
164  
165  
166  
167  
168  
169  
170  
171  
172  
173  
174  
175  
176  
177  
178  
179  
180  
181  
182  
183  
184  
185  
186  
187  
188  
189  
190  
191  
192  
193  
194  
195  
196  
197  
198  
199  
200  
201  
202  
203  
204  
205  
206  
207  
208  
209  
210  
211  
212  
213  
214  
215  
216  
217  
218  
219  
220  
221  
222  
223  
224  
225  
226  
227  
228  
229  
230  
231  
232  
233  
234  
235  
236  
237  
238  
239  
240  
241  
242  
243  
244  
245  
246  
247  
248  
249  
250  
251  
252  
253  
254  
255  
256  
257  
258  
259  
260  
261  
262  
263  
264  
265  
266  
267  
268  
269  
270  
271  
272  
273  
274  
275  
276  
277  
278  
279  
280  
281  
282  
283  
284  
285  
286  
287  
288  
289  
290  
291  
292  
293  
294  
295  
296  
297  
298  
299  
300  
301  
302  
303  
304  
305  
306  
307  
308  
309  
310  
311  
312  
313  
314  
315  
316  
317  
318  
319  
320  
321  
322  
323  
324  
325  
326  
327  
328  
329  
330  
331  
332  
333  
334  
335  
336  
337  
338  
339  
340  
341  
342  
343  
344  
345  
346  
347  
348  
349  
350  
351  
352  
353  
354  
355  
356  
357  
358  
359  
360  
361  
362  
363  
364  
365  
366  
367  
368  
369  
370  
371  
372  
373  
374  
375  
376  
377  
378  
379  
380  
381  
382  
383  
384  
385  
386  
387  
388  
389  
390  
391  
392  
393  
394  
395  
396  
397  
398  
399  
400  
401  
402  
403  
404  
405  
406  
407  
408  
409  
410  
411  
412  
413  
414  
415  
416  
417  
418  
419  
420  
421  
422  
423  
424  
425  
426  
427  
428  
429  
430  
431  
432  
433  
434  
435  
436  
437  
438  
439  
440  
441  
442  
443  
444  
445  
446  
447  
448  
449  
450  
451  
452  
453  
454  
455  
456  
457  
458  
459  
460  
461  
462  
463  
464  
465  
466  
467  
468  
469  
470  
471  
472  
473  
474  
475  
476  
477  
478  
479  
480  
481  
482  
483  
484  
485  
486  
487  
488  
489  
490  
491  
492  
493  
494  
495  
496  
497  
498  
499  
500  
501  
502  
503  
504  
505  
506  
507  
508  
509  
510  
511  
512  
513  
514  
515  
516  
517  
518  
519  
520  
521  
522  
523  
524  
525  
526  
527  
528  
529  
530  
531  
532  
533  
534  
535  
536  
537  
538  
539  
540  
541  
542  
543  
544  
545  
546  
547  
548  
549  
550  
551  
552  
553  
554  
555  
556  
557  
558  
559  
560  
561  
562  
563  
564  
565  
566  
567  
568  
569  
570  
571  
572  
573  
574  
575  
576  
577  
578  
579  
580  
581  
582  
583  
584  
585  
586  
587  
588  
589  
590  
591  
592  
593  
594  
595  
596  
597  
598  
599  
600  
601  
602  
603  
604  
605  
606  
607  
608  
609  
610  
611  
612  
613  
614  
615  
616  
617  
618  
619  
620  
621  
622  
623  
624  
625  
626  
627  
628  
629  
630  
631  
632  
633  
634  
635  
636  
637  
638  
639  
640  
641  
642  
643  
644  
645  
646  
647  
648  
649  
650  
651  
652  
653  
654  
655  
656  
657  
658  
659  
660  
661  
662  
663  
664  
665  
666  
667  
668  
669  
670  
671  
672  
673  
674  
675  
676  
677  
678  
679  
680  
681  
682  
683  
684  
685  
686  
687  
688  
689  
690  
691  
692  
693  
694  
695  
696  
697  
698  
699  
700  
701  
702  
703  
704  
705  
706  
707  
708  
709  
710  
711  
712  
713  
714  
715  
716  
717  
718  
719  
720  
721  
722  
723  
724  
725  
726  
727  
728  
729  
730  
731  
732  
733  
734  
735  
736  
737  
738  
739  
740  
741  
742  
743  
744  
745  
746  
747  
748  
749  
750  
751  
752  
753  
754  
755  
756  
757  
758  
759  
760  
761  
762  
763  
764  
765  
766  
767  
768  
769  
770  
771  
772  
773  
774  
775  
776  
777  
778  
779  
780  
781  
782  
783  
784  
785  
786  
787  
788  
789  
790  
791  
792  
793  
794  
795  
796  
797  
798  
799  
800  
801  
802  
803  
804  
805  
806  
807  
808  
809  
810  
811  
812  
813  
814  
815  
816  
817  
818  
819  
820  
821  
822  
823  
824  
825  
826  
827  
828  
829  
830  
831  
832  
833  
834  
835  
836  
837  
838  
839  
840  
841  
842  
843  
844  
845  
846  
847  
848  
849  
850  
851  
852  
853  
854  
855  
856  
857  
858  
859  
860  
861  
862  
863  
864  
865  
866  
867  
868  
869  
870  
871  
872  
873  
874  
875  
876  
877  
878  
879  
880  
881  
882  
883  
884  
885  
886  
887  
888  
889  
890  
891  
892  
893  
894  
895  
896  
897  
898  
899  
900  
901  
902  
903  
904  
905  
906  
907  
908  
909  
910  
911  
912  
913  
914  
915  
916  
917  
918  
919  
920  
921  
922  
923  
924  
925  
926  
927  
928  
929  
930  
931  
932  
933  
934  
935  
936  
937  
938  
939  
940  
941  
942  
943  
944  
945  
946  
947  
948  
949  
950  
951  
952  
953  
954  
955  
956  
957  
958  
959  
960  
961  
962  
963  
964  
965  
966  
967  
968  
969  
970  
971  
972  
973  
974  
975  
976  
977  
978  
979  
980  
981  
982  
983  
984  
985  
986  
987  
988  
989  
990  
991  
992  
993  
994  
995  
996  
997  
998  
999  
1000

Visibility of intentions could occur first at the level of the support system, and then at the level of its substructures. Consideration of both levels is important because of the risks involved in sharing and revealing one’s intentions. Sharing early-phase ideas and intentions need not necessarily be risky for prospective entrepreneurs; on the contrary, it could lead to individual intentions becoming commonly shared goals, as ideas develop. Paradoxically,

1  
2  
3 sharing an idea can also protect it by establishing attribution. However, there is a cost  
4 associated with sharing vital information at the support-system level; potential entrepreneurs  
5 should probably avoid this until they have established some sense of trust within the  
6 substructure.<sup>5</sup>  
7  
8  
9  
10

11  
12 The early collective trust that is created within the support system would set the stage for  
13 interactions within the substructures. For the support system to function, the transfer of trust  
14 across all levels is paramount. There is, however, a risk that trust might not naturally cascade:  
15 this is where the role of the moderator comes in handy to save the system from falling apart.  
16 In this regard, Korsgaard et al. (2015) describe trust as a state that is influenced by context and  
17 interactions. Social space, as a network of relations, is where norms of behavior regulate much  
18 of what occurs (Hernes, 2004a: 71). Trust among actors within substructures, given its  
19 bidirectional nature (Korsgaard et al., 2015), will be either enhanced or reduced as an outcome  
20 of interactions (Mayer et al., 1995; Powell, 1996: 63). As early trust is established, people will  
21 share ideas, although they may refrain from sharing their best ideas. However, with time and  
22 as interactions continue and further trust is established in terms of the others' perceived  
23 knowledge, ability (competence trust), and integrity (goodwill trust) (Das & Teng, 2004), they  
24 would consider sharing better ideas as interactions strengthen. A dynamics emerge where  
25 interactions strengthen early trust, which in turn furthers interactions. However, this doesn't  
26 mean that all interactions within the substructures should converge. If the necessary trust is not  
27 generated, because of, for example, skepticism, perception of incompetence, or lack of  
28 enthusiasm, actors could exit the substructures or the support system altogether. In the process,  
29 the substructures could dissolve and feed into others, enabling further interactions within the  
30 support system.  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54

---

55  
56  
57  
58 <sup>5</sup> For actors possessing potentially patentable ideas, the cost might even be higher before the patent is granted. In  
59 such cases, they might be better off in a relatively closed setting that differs from what we propose herein.  
60

1  
2  
3 In principle, asymmetries of trust in relationships exist and need both time (Korsgaard et  
4 al., 2015) and interventions to converge. At the substructure level, relationship-based trust  
5 among actors could be further strengthened through belonging mechanisms (Hazy & Uhl-Bien,  
6 2015), including activities that generate specific collective identity (Sheppard & Tuchinsky,  
7 1996) and reciprocity (Hernes, 2004a: 119; Kreiner & Schultz, 1993). Interventions in such  
8 cases might include physically isolating substructures, thus increasing their potential for  
9 interaction within; encouraging them to identify synergies and to establish a collective mission;  
10 facilitating feedback sessions; and encouraging substructures to celebrate milestones. Thus,  
11 collective identity and reciprocity could be central to long-term trust, which could potentially  
12 reduce the risk of opportunism. Within the substructures, as members spend more time  
13 together, the sense of shared identity is reflected, for instance, through a team name and logo  
14 which would lead to the emergence of a semblance of stability. A sense of belonging and  
15 collective mission takes root for the prospective entrepreneurs within, driving them to share  
16 their best ideas, enabling further interactions around them.

17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35 ***Proposition 2b:*** *Self-selected prospective entrepreneurs are more likely to reveal their*  
36 *entrepreneurial intentions as moderators help strengthen early trust, spurring further*  
37 *interactions at the substructure-level.*

38  
39  
40  
41  
42 Drawing from connectionism (see Waldrop, 1993: 291), we argue that surprising and  
43 sophisticated outcomes occur from *the way* that prospective entrepreneurs interact within the  
44 support system. In our context, we define connectivity within the support system as *the quality*  
45 *of interactions between prospective entrepreneurs*. We use the quality of interaction to separate  
46 connectivity from the amount of interaction: more interaction does not necessarily mean that  
47 the interactions are of high quality that could lead to meaningful outcomes. Within the support  
48 system, prospective entrepreneurs interact spontaneously and purposively, although the details  
49 of that purpose or where that interaction might lead to (e.g., “ABE” in Figure 1) are not defined  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 or cannot be articulated in detail. Thus, the intervention could aim to increase connectivity,  
4  
5 although the specific outcome of actors as a collective is not predefined but emergent.  
6  
7 Connectivity, therefore, entails transforming, rather than adding, to produce something new  
8  
9 and different (Born, Frankel, & Thygesen, 2006: 134). The question that arises is how that  
10  
11 “transforming” occurs. We argue that the moderators could intervene in two related ways:  
12  
13 lowering associative barriers and moderating power asymmetry.  
14  
15

16  
17 First, lowering associative barriers occurs when the interacting actors break boundaries  
18  
19 (Benedek, Könen, & Neubauer, 2012). Thus, association across ideas, problems, disciplines,  
20  
21 events, and trends is central to connectivity and, ultimately, to the emergence of entrepreneurial  
22  
23 opportunities. As people connect concepts that initially appear unconnected, it produces  
24  
25 outcomes that were hitherto unpredictable, and likely to be innovative (Dyer, Gregersen, &  
26  
27 Christensen, 2008; Sternberg & Davidson, 1995). Sailer (2011: 8) argues that “the potential to  
28  
29 meet and interact with people holding differing sets of knowledge or beliefs has been argued  
30  
31 to be an essentially spatial problem.” Therefore, intervention could aim to reduce associative  
32  
33 barriers between actors (Johansson, 2004) by designing a space with a suitable spatial  
34  
35 configuration in terms of openness, proximity, and density.  
36  
37  
38

39  
40 Studies show that high visibility triggers more cross-functional interactions (Coradi,  
41  
42 Heinzen, & Boutellier, 2015). As such, open space could increase the visibility of prospective  
43  
44 entrepreneurs and their intentions, creating the potential for spontaneous interactions across  
45  
46 boundaries. This could generate interactions across substructure boundaries, and is highly  
47  
48 likely to enhance their creative potential. Hence, with the potential for equal opportunity for  
49  
50 the contribution of heterogeneous actors, lowering associative barriers brings a higher  
51  
52 likelihood of emergent entrepreneurial opportunities through the fusion of divergent thinking.  
53  
54 Relatedly, by creating a space where failure and the related learning from it is celebrated, a  
55  
56 moderator can create a psychologically safe (Edmondson, 1999) environment with “freedom  
57  
58  
59  
60

1  
2  
3 to err” (Gaim, 2018: 512), arguably lowering associative barriers and facilitating trial and error,  
4  
5 reciprocity, generation of multiple models, and subsequent iterations, such that actors start  
6  
7 looking for points of intersection without having to define an anticipated outcome. Associating  
8  
9 seemingly unrelated questions, problems, or ideas from different fields, becomes central to the  
10  
11 emergence of venture concepts.  
12  
13

14  
15 Second, because power asymmetry is bound to arise amidst heterogeneity, moderation  
16  
17 places actors in the same ground. Moderating power does not mean avoiding conflict, because  
18  
19 constructive conflict is essential for creativity and generating new ideas. However, it is  
20  
21 undesirable for individual actors to try to gain influence at other actors’ expense, thus leading  
22  
23 to group disruptions (Amason, 1996) and destructive conflict, especially with power  
24  
25 asymmetries between interacting actors (Eisenhardt & Bourgeois, 1988). Through spatial  
26  
27 configuration and moderators’ intervention, a prospective entrepreneur who feels  
28  
29 overwhelmed in the others’ presence could be induced, by exposure to different social stimuli,  
30  
31 to engage in spontaneous interaction and rapid transfer of ideas. When those who would have  
32  
33 abstained are stimulated to interact, the intervention is said to increase both the quantity and  
34  
35 quality of ideas within the collective.  
36  
37  
38  
39

40  
41 Consider a hypothetical encounter within the support system, that occurs between a  
42  
43 multinational company’s representative seeking new technologies that could disrupt their  
44  
45 industry, and a first-time technology entrepreneur. Their power dynamic might be  
46  
47 asymmetrical, rendering the entrepreneur powerless and, hence, hindering interaction. In  
48  
49 practice, intervening to moderate such power asymmetry could involve practices akin to  
50  
51 “management by wandering around” in the sense that the mere presence of the moderators,  
52  
53 whose main task is to facilitate interaction, could change the power dynamics of those engaged  
54  
55 in interaction. By just being ‘there,’ the moderators could engage in ongoing interactions, albeit  
56  
57 as neutral observers, to ensure that power relations do not hamper actors’ organic interaction.  
58  
59  
60



1  
2  
3 Thus, we argue that the moderators could use their presence (in the sense of facilitating instead  
4 of monitoring) to change the power dynamics where there is power asymmetry and create a  
5 safe space for all involved. Moderation, therefore, aims at creating an atmosphere where  
6 connectivity around already visible entrepreneurial intentions of equally valued actors could  
7 lead to emergent new opportunities.  
8  
9

10  
11  
12 Taken together, by moderating associative barriers and power asymmetry within an  
13 emerging heterogeneous substructure, the support system could enable prospective  
14 entrepreneurs to take the road less traveled. This entails forging a new path outside their  
15 specialized areas of expertise and focusing on areas that intersect specialized fields. Hence:  
16  
17

18  
19  
20 ***Proposition 3:** Higher visibility of the prospective entrepreneurs' intentions could lead to*  
21 *increased connectivity as moderators a) reduce associative barriers and b) manage power*  
22 *asymmetry.*  
23  
24

25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
Connectivity represents the quality of interactions: therefore, the higher the connectivity,  
the better, because, without connectivity, “nothing can proceed from something else” (Hernes,  
2007: 78). However, this does not mean that all (or more) interactions are fruitful and of high  
quality. Not all interactions necessarily establish connectivity. The key message is that the  
nature and quality of such interactions lead to emergent outcomes. As the connectivity  
increases within the support system, the substructures begin to take shape, the boundaries of  
which shield actors from the conventional ways of thinking and doing. This emergent space  
“allows them to act and interact in ways in which they would not be able to interact outside  
that isolated space” (Weinfurter & Seidl, 2019: 14), and which then goes on to affect how the  
interactions occur further. As the connectivity increases, the emerging team ‘evaluates’ the  
opportunity in time and space, and therefore, their boundaries relatively solidify, and  
permeability decreases. In this case, an open space’s advantage of divergence hampers the

1  
2  
3 process as teams reach a stage where there is a need for convergence, which demands a  
4 relatively closed space.  
5  
6

7  
8 At the same time, the overall openness at the support system-level has to be maintained  
9 for the potential for interactions to remain (e.g., the industrial designer could come in later as  
10 such a potential exists; see Figure 1). The openness that characterizes the support system allows  
11 substructures to disband or for particular actors to leave, thereby maintaining interactions  
12 across substructures. The emergence of the substructures could be facilitated by allowing for  
13 temporary islands of closed spaces, within the overall open space that the support system  
14 promotes, where the emerging venture concepts could incubate. Therefore, the support system  
15 could have different kinds of spaces within: [1] open spaces where people can freely move  
16 around, where the proximity of the various clumps of interactions are within reach and visible,  
17 and [2] closed working spaces where some interactions purposely move to secluded areas and  
18 away from the chaos as they reach some level of stability.  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32

33 As the substructures become less open, the prospective entrepreneurs could make use of  
34 systematic exploration, wherein they seek new possibilities for emerging opportunities.  
35 However, it should also be open enough for others to recognize or discover the potential for  
36 engaging with the emerging opportunity. The visibility of the emerging opportunity could be  
37 selectively revealed for other actors within the support system. To do so, moderators could  
38 modify the spatial dimensions of the substructure by making them designated hotspots, thereby  
39 manipulating their boundaries. For instance, if the emerging opportunity is related to food  
40 technologies and is designated as such, it would attract the industrial designer or a multinational  
41 company's representative who takes an interest in designing food products, and not random  
42 interactions from other actors. In interaction with the moderators, the emerging team could  
43 evaluate progress and allow for targeted interaction with other actors (such as the industrial  
44 designer) whereby the opportunities could evolve. Given the iterative nature of the process,  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 once a substructure becomes relatively stabilized by establishing higher connectivity, the  
4  
5 openness of the boundaries declines. The increased connectivity reduces the degree of  
6  
7 openness as the focus is on targeted interaction based on a best-fit. As substructures emerge,  
8  
9 dissipate, and cross feed, multiple stable substructures emerge within the support system that  
10  
11 concurrently give rise to multiple venture concepts.  
12  
13

14 ***Proposition 4:** Increasing connectivity bounds the emerging entrepreneurial*  
15 *opportunities, decreasing the substructures' degree of openness.*  
16  
17

18  
19 Our central argument, therefore, is that the dynamic interplay between openness and  
20  
21 connectivity increases the likelihood of venture concepts emerging. Such venture concepts that  
22  
23 so emerge might be pursued later by all or some prospective entrepreneurs within a  
24  
25 substructure. Albeit at the early phase, the venture concepts have observable manifestations,  
26  
27 such as a concept note or a prototype; moreover, these extend beyond the individually held  
28  
29 ideas or interactions that have occurred. After transitioning from scattered ideas to venture  
30  
31 concepts, the next step is to interact with the external environment and adapt, transform, or  
32  
33 perish. The venture concept's fitness or realizability (see Figure 2) will depend on its niche,  
34  
35 what other opportunities exist, and what resources it can gather: this is the territory for late-  
36  
37 phase support systems such as incubators and accelerators.  
38  
39  
40

## 41 42 **DISCUSSION**

43

44  
45 Our paper inquired *how support systems can be organized to enable the actions and*  
46  
47 *interactions of prospective entrepreneurs toward the emergence of venture concepts*, as tokens,  
48  
49 frames, and premises for further action. In answering our research question, we demonstrated  
50  
51 how the interplay between the organizing characteristics of openness, self-selection, visibility,  
52  
53 and connectivity creates the potential for venture concepts to emerge (see Figure 3). By  
54  
55 exploring the organizing of support systems, we make significant contributions to theory and  
56  
57 practice.  
58  
59  
60

## Implications for Research

We contribute to organizing support systems that are more attuned to the nature of new venture creation that they support. Entrepreneurship scholars have emphasized the pervasive uncertainty and nonlinearity in the early phases of new-venture creation, where opportunities emerge in interactions (Alvarez & Barney, 2005; Alvarez et al., 2013; Dimov, 2011; Edelman & Yli-Renko, 2010; Sarasvathy, 2001; Selden & Fletcher, 2015). However, support systems literature has failed to incorporate these crucial characteristics, and instead predominantly focused on organizing based on a linear and predictable future (Bruneel et al., 2012; Clarysse, Wright, Lockett, Van de Velde, & Vohora, 2005; Clayton et al., 2018; Mian, Lamine, & Fayolle, 2016; Rubin et al., 2015).

Therefore, we argue that the paradoxical nature of ‘organizing for the emergence of opportunities’ has not been adequately integrated into support systems literature. Consequently, the literature does not explain the early phase of opportunity emergence, characterized by uncertainty (with viability yet to be determined) and complexity (given the range of actors with outcomes contingent on who engages in the process, and their possible interactions). In this regard, we extend the literature, which has so far concentrated on organizing support systems for transitioning opportunities from venture concepts to their realization (Autio & Levie, 2017; Clayton et al., 2018; Cohen et al., 2019; Dutt et al., 2016), by including the phase in which venture concepts emerge from scattered ideas (see Figures 1 and 2). Our findings bridge the gap between the support systems literature and the entrepreneurial opportunities literature, with implications for organizing support systems more attuned to the distinct characteristics of the new venturing phase they aim to support.

1  
2  
3 First, support systems literature has predominantly focused on exogenous top-down  
4 selection mechanisms at various stages of the support process in determining ‘who’ or ‘what’  
5 progresses in the new venture creation process (Aaboen, 2009; Aerts et al., 2007; Clayton et  
6 al., 2018). In contrast, we describe the organizational processes by which nonlinear outcomes  
7 emerge as heterogeneous actors navigate the various levels of the early-phase support systems’  
8 spatial boundaries (Hernes, 2004b, 2004a; Taylor & Spicer, 2007; Weinfurtner & Seidl, 2019).  
9 These nonlinear outcomes could substitute for (or at least complement) exogenous selection  
10 mechanisms, resembling endogenous evolutionary selection (Read et al., 2016). Given that  
11 entrepreneurial opportunities form endogenously (Alvarez & Barney, 2007; Alvarez et al.,  
12 2013), wherein prospective entrepreneurs self-select into the new-venture creation process  
13 (Lazar et al., 2020; Read et al., 2016); we, therefore, suggest a new direction to support systems  
14 literature that explores the facilitation of this process.

15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31 Second, whereas most research concerns teams and ideas based on homophily (Aldrich &  
32 Kim, 2007), aspects such as heterogeneity, trust creation, power moderation, and self-  
33 disclosure, need to be considered in the shift toward concurrent self-selection of actors and  
34 their self-organization in the early phase of venturing. Because support systems are the result  
35 of human choice and intervention, there are decisions that go into affecting how they are  
36 organized. Existing research on organizational emergence has either ignored interventions of  
37 actors in facilitating emergence (Child & Rodrigues, 2011; Poulis & Poulis, 2016) or  
38 considered those who intervene as standing apart from the complexity involved and thereby  
39 having a unidirectional influence over compliant others (Tourish, 2019). In contrast, by  
40 elaborating on the role of moderators – as learning and adaptive actors – we show how they  
41 intervene in the nonpredictive emergence of opportunities within support systems, thereby  
42 conceptualizing how interventions could play out within the realm of complex organizing  
43 (Byrne, 2013; Regine & Lewin, 2000). Those facilitating do not need to stand apart from the  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 processes they try to facilitate, an insight the current support systems literature, with its  
4  
5 predominantly linear view of organizing, could benefit from.  
6  
7

8 Further, our theorizing has broader implications for the literature on organizing early-  
9  
10 phase development processes. It speaks to a wide range of organizational settings such as  
11  
12 strategy-making, creativity, corporate entrepreneurship, and innovation, where managerial  
13  
14 gatekeepers engage in the selection of ideas in the evolutionary process between idea  
15  
16 generation and its eventual outcome (Adner & Levinthal, 2008; Benner & Tushman, 2003;  
17  
18 Berg, 2016; Burgelman, 1991; Shankar & Shepherd, 2019). Our research highlights increasing  
19  
20 accessibility, heterogeneity, and non-linear interactions as a means to creating requisite variety  
21  
22 (Ashby, 1956; Van de Ven, 1986) and facilitating endogenous evolutionary selection in  
23  
24 uncertain and resource-constrained environments. We argue that such an understanding could  
25  
26 inform early-phase development processes by embracing, rather than reducing, the complexity  
27  
28 and uncertainty that characterize their organizing.  
29  
30  
31  
32

33 Our contributions set the stage for empirical developments in exploring design features of  
34  
35 organizing to elucidate the micro-foundations of support systems, focusing predominantly on  
36  
37 the uncertain early phases. Specifically, future research could investigate how the design  
38  
39 features in different support system contexts (e.g., startup cafes, innovation boot camps,  
40  
41 corporate-startup initiatives, hackathons, and new venture creation courses) emerge, develop,  
42  
43 and sustain. Our contribution could also spur research on late-phase support systems to  
44  
45 reexamine and tightly integrate opportunity emergence in their organizing. Future research  
46  
47 could refine our model by manipulating its design features (in terms of boundaries, distance,  
48  
49 and movement, for example) and the moderators' simple rules, and improving its applicability  
50  
51 in broader settings, perhaps using experimental studies. We also envisage future research to  
52  
53 study empirically what actions of moderators will facilitate desirable openness and  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 connectivity as they learn from and adapt to the diverse actors and their interactions in different  
4  
5 organizational settings.  
6  
7  
8  
9

### 10 **Implications for Practice**

11  
12 The example of the StartUp HERE Toronto Café shows that informal chats and unplanned  
13  
14 interactions in different settings can open doors, spark ideas, and establish critical new  
15  
16 relationships that shape the emergence and development of entrepreneurs' ventures. Our model  
17  
18 proposes specific organizing principles for the design of such early phase systems as feeders  
19  
20 into the later-stage incubation and acceleration processes. Expedient interventions can keep  
21  
22 such systems relevant and attuned to the changing external environment by focusing on  
23  
24 bridging scattered ideas and venture concepts (see Figures 1 and 2). In particular, moderators  
25  
26 could respond to the demands for openness and closedness of boundaries, both at the support  
27  
28 system and team levels. For instance, they could shift the support space from one that facilitates  
29  
30 spontaneity and unplanned interactions that could lead to venture concepts and opportunities,  
31  
32 to one that facilitates deep work as teams converge around ideas and need to flesh out the  
33  
34 venture concepts that need to be incubated.  
35  
36  
37  
38  
39

40 Our propositions can also inform policymakers who have taken keen interest in support  
41  
42 systems as a means of strengthening the entrepreneurial ecosystem within a region (Harper-  
43  
44 Anderson & Lewis, 2018). They can complement their emphasis on the late-phase support  
45  
46 systems such as incubators and accelerators with enabling early-phase interventions that ensure  
47  
48 a stable, vibrant flow of entrepreneurial ideas and initiatives. Given the importance of early-  
49  
50 phase support systems in acting as necessary organizational forms within entrepreneurial  
51  
52 ecosystems, our contribution should drive awareness among policymakers of the relevance of  
53  
54 investing in them.  
55  
56  
57

### 58 **CONCLUSION**

1  
2  
3 The origins and development of new ventures can be traced to many incidents: some  
4 designed, others coincidental. Our paper advocates creating the potential for more coincidental  
5 actions and interactions, paradoxically within an organized mode, to feed existing support  
6 systems. The entrepreneurial ecosystem contains different shapes and forms of support  
7 systems, whose presence is integral to effectively organizing various actors with different  
8 intentions, resources, and capabilities. Meeting places such as StartUp HERE Toronto Café  
9 focus on the early phase of new ventures, increasing the quality and quantity of venture  
10 concepts that reach the current support systems. As such, support systems literature could  
11 benefit from the increased focus on the early phases in which scattered ideas become venture  
12 concepts. Whereas prior research assumes these are generated automatically, and then explains  
13 how to develop them into realized opportunities, we elucidate the organizing features behind  
14 the emergence of such venture concepts as gateways into the further process. In conjunction  
15 with existing support systems research, our study treads a conceptually uninhabited terrain,  
16 contributing towards establishing a more holistic view of entrepreneurial ecosystems.  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60



## REFERENCES

- 1  
2  
3  
4  
5  
6 Aaboen, L. 2009. Explaining incubators using firm analogy. *Technovation*, 29(10): 657–670.
- 7  
8 Abrams, L. C., Cross, R., Lesser, E., & Levin, D. Z. 2003. Nurturing interpersonal trust in  
9 knowledge-sharing networks. *Academy of Management Perspectives*, 17(4): 64–77.
- 10  
11 Ács, Z. J., Autio, E., & Szerb, L. 2014. National systems of entrepreneurship: Measurement  
12 issues and policy implications. *Research Policy*, 43(3): 476–494.
- 13  
14 Adner, R., & Levinthal, D. A. 2008. Doing versus seeing: Acts of exploitation and  
15 perceptions of exploration. *Strategic Entrepreneurship Journal*, 10(2): 43–52.
- 16  
17 Aerts, K., Matthyssens, P., & Vandenbempt, K. 2007. Critical role and screening practices of  
18 European business incubators. *Technovation*, 27(5): 254–267.
- 19  
20 Aldrich, H. E., & Kim, P. 2007. Small worlds, infinite possibilities? How social networks  
21 affect entrepreneurial team formation and search. *Strategic Entrepreneurship Journal*,  
22 1(1–2): 147–165.
- 23  
24 Alvarez, S. A., & Barney, J. B. 2005. How do entrepreneurs organize firms under conditions  
25 of uncertainty? *Journal of Management*, 31(5): 776–793.
- 26  
27 Alvarez, S. A., & Barney, J. B. 2007. Discovery and creation: Alternative theories of  
28 entrepreneurial action. *Strategic Entrepreneurship Journal*, 1(1–2): 11–26.
- 29  
30 Alvarez, S. A., Barney, J. B., & Anderson, P. 2013. Forming and Exploiting Opportunities:  
31 The Implications of Discovery and Creation Processes for Entrepreneurial and  
32 Organizational Research. *Organization Science*, 24(1): 301–317.
- 33  
34 Amason, A. C. 1996. Distinguishing the effects of functional and dysfunctional conflict on  
35 strategic decision making: Resolving a paradox for top management teams. *Academy of  
36 Management Journal*, 39(1): 123–148.
- 37  
38 Amezcua, A. S., Grimes, M. G., Bradley, S. W., & Wiklund, J. 2013. Organizational  
39 sponsorship and founding environments: A contingency view on the survival of  
40 business-incubated firms, 1994–2007. *Academy of Management Journal*, 56(6): 1628–  
41 1654.
- 42  
43 Anderson, P. 1999. Perspective: Complexity theory and organization science. *Organization  
44 Science*, 10(3): 216–232.
- 45  
46 Anderson, P., Meyer, A., Eisenhardt, K., Carley, K., & Pettigrew, A. 1999. Introduction to  
47 the special issue: Applications of complexity theory to organization science.  
48 *Organization Science*, 10(3): 232–236.
- 49  
50 Ashby, R. W. 1956. Requisite Variety. *An Introduction to Cybernetics*. Englewood Cliffs,  
51 NJ: Prentice Hall.
- 52  
53 Augier, M., & Sarasvathy, S. D. 2004. Integrating evolution, cognition and design: Extending  
54 Simonian perspectives to strategic organization. *Strategic Organization*, 2(2): 169–204.
- 55  
56 Autio, E., & Levie, J. 2017. Management of entrepreneurial ecosystems. In G. Ahmetoglu, T.  
57 Chamorro-Premuzic, B. Klinger, & T. Karcisky (Eds.), *The Wiley Handbook of  
58 Entrepreneurship*: 423–449. Chichester: John Wiley & Sons.
- 59  
60 Autio, E., Nambisan, S., Thomas, L. D. W., & Wright, M. 2018. Digital affordances, spatial  
61 affordances, and the genesis of entrepreneurial ecosystems. *Strategic Entrepreneurship  
62 Journal*, 12(1): 72–95.

- 1  
2  
3 Axelrod, R., & Cohen, M. D. 1999. *Harnessing complexity: organizational implications of*  
4 *a scientific frontier*. Cambridge: Basic Books.
- 5  
6 Benedek, M., Könen, T., & Neubauer, A. C. 2012. Associative abilities underlying creativity.  
7 *Psychology of Aesthetics, Creativity, and the Arts*, 6(3): 273–281.
- 8  
9 Benner, M. J., & Tushman, M. L. 2003. Exploitation , exploration , and process  
10 management : The productivity dilemma revisited. *Academy of Management Review*,  
11 28(2): 238–256.
- 12  
13 Berg, J. M. 2016. Balancing on the Creative Highwire: Forecasting the Success of Novel  
14 Ideas in Organizations. *Administrative Science Quarterly*, 61(3): 433–468.
- 15  
16 Bergek, A., & Norrman, C. 2008. Incubator best practice: A framework. *Technovation*,  
17 28(1–2): 20–28.
- 18  
19 Berglund, H., Bousfiha, M., & Mansoori, Y. 2020. Opportunities as Artifacts and  
20 Entrepreneurship as Design. *Academy of Management Review*.  
21 <https://doi.org/10.5465/amr.2018.0285>.
- 22  
23 Born, A. W., Frankel, C., & Thygesen, N. T. 2006. The Hours: A Gaze, a Kiss and the Lapse  
24 between them. An Eventalization. *Ephemera*, 6(2): 121–140.
- 25  
26 Bouchikhi, H. 1993. A constructivist framework for understanding entrepreneurship  
27 performance. *Organization Studies*, 14(4): 549–570.
- 28  
29 Brown, S. L., & Eisenhardt, K. M. 1997. The art of continuous change : Linking complexity  
30 theory and time-paced evolution in relentlessly shifting organizations. *Administrative*  
31 *Science Quarterly*, 42(1): 1–34.
- 32  
33 Bruneel, J., Ratinho, T., Clarysse, B., & Groen, A. 2012. The Evolution of Business  
34 Incubators: Comparing demand and supply of business incubation services across  
35 different incubator generations. *Technovation*, 32(2): 110–121.
- 36  
37 Burgelman, R. A. 1991. Intraorganizational Ecology of Strategy Making and Organizational  
38 Adaptation : Theory and Field Research. *Organization Science*, 2(3): 239–262.
- 39  
40 Burnes, B. 2005. Complexity theories and organizational change. *International Journal of*  
41 *Management Reviews*, 7(2): 73–90.
- 42  
43 Byrne, D. 2013. Evaluating complex social interventions in a complex world. *Evaluation*,  
44 19(3): 217–228.
- 45  
46 Cardon, M. S., Zietsma, C., Saporito, P., Matherne, B. P., & Davis, C. 2005. A tale of  
47 passion: New insights into entrepreneurship from a parenthood metaphor. *Journal of*  
48 *Business Venturing*, 20(1): 23–45.
- 49  
50 Carlile, P. R. 2004. Transferring, translating, and transforming: An integrative framework for  
51 managing knowledge across boundaries. *Organization Science*, 15(5): 555–568.
- 52  
53 Carroll, T., & Burton, R. M. 2000. Organizations and complexity: searching for the edge of  
54 chaos. *Computational & Mathematical Organization Theory*, 6(4): 319–337.
- 55  
56 Child, J., & Rodrigues, S. B. 2011. How Organizations Engage with External Complexity: A  
57 Political Action Perspective. *Organization Studies*, 32(6): 803–824.
- 58  
59 Chiles, T. H., Meyer, A. D., & Hench, T. J. 2004. Organizational emergence: The origin and  
60 transformation of Branson, Missouri's musical theaters. *Organization Science*, 15(5):  
499–519.

- 1  
2  
3 Cilliers, P. 2002. *Complexity and postmodernism: Understanding complex systems*.  
4 London: Routledge.  
5
- 6 Clarysse, B., Wright, M., Lockett, A., Van de Velde, E., & Vohora, A. 2005. Spinning out  
7 new ventures: a typology of incubation strategies from European research institutions.  
8 *Journal of Business Venturing*, 20(2): 183–216.  
9
- 10 Clayton, P., Feldman, M., & Lowe, N. 2018. Behind the scenes: Intermediary organizations  
11 that facilitate science commercialization through entrepreneurship. *Academy of*  
12 *Management Perspectives*, 32(1): 104–124.  
13
- 14 Coenen, L., Benneworth, P., & Truffer, B. 2012. Toward a spatial perspective on  
15 sustainability transitions. *Research Policy*, 41(6): 968–979.  
16
- 17 Cohen, S. L., Bingham, C. B., & Hallen, B. L. 2019. The role of accelerator designs in  
18 mitigating bounded rationality in new ventures. *Administrative Science Quarterly*,  
19 64(4): 810–854.  
20
- 21 Coradi, A., Heinzen, M., & Boutellier, R. 2015. A longitudinal study of workspace design for  
22 knowledge exploration and exploitation in the research and development process.  
23 *Creativity and Innovation Management*, 24(1): 55–71.  
24
- 25 Das, T. K., & Teng, B. S. 2004. The risk-based view of trust: A conceptual framework.  
26 *Journal of Business and Psychology*, 19(1): 85–116.  
27
- 28 Dew, N. 2009. Serendipity in entrepreneurship. *Organization Studies*, 30(7): 735–753.  
29
- 30 Dew, N., Read, S., Sarasvathy, S. D., & Wiltbank, R. 2008. Outlines of a behavioral theory of  
31 the entrepreneurial firm. *Journal of Economic Behavior and Organization*, 66(1): 37–  
32 59.  
33
- 34 Dimov, D. 2007. From opportunity insight to opportunity intention: The importance of  
35 person-situation learning match. *Entrepreneurship: Theory and Practice*, 31(4): 561–  
36 583.  
37
- 38 Dimov, D. 2011. Grappling with the unbearable elusiveness of entrepreneurial opportunities.  
39 *Entrepreneurship: Theory and Practice*, 35(1): 57–81.  
40
- 41 Dimov, D. 2016. Toward a design science of entrepreneurship. In J. S. Katz & A. C. Corbett  
42 (Eds.), *Models of Start-up Thinking and Action: Theoretical, Empirical and*  
43 *Pedagogical Approaches*, vol. 18: 1–31. Bingley: Emerald Group Publishing Limited.  
44
- 45 Dimov, D. 2020. Opportunities, language, and time. *Academy of Management Perspectives*.  
46 <https://doi.org/https://doi.org/10.5465/amp.2017.0135>.  
47
- 48 Dougherty, D., & Dunne, D. D. 2012. Digital science and knowledge boundaries in complex  
49 innovation. *Organization Science*, 23(5): 1467–1484.  
50
- 51 Drazin, R., & Sandelands, L. 1992. Autogenesis: A perspective on the process of organizing.  
52 *Organization Science*, 3(2): 230–249.  
53
- 54 Dutt, N., Hawn, O., Vidal, E., Chatterji, A., McGahan, A., et al. 2016. How open system  
55 intermediaries address institutional failures: The case of business incubators in  
56 emerging-market countries. *Academy of Management Journal*, 59(3): 818–840.  
57
- 58 Dutton, J. E., Dukerich, J. M., & Harquail, C. V. 1994. Organizational images and member  
59 identification. *Administrative Science Quarterly*, 39(2): 239–263.  
60
- 61 Dyer, J. H., Gregersen, H. B., & Christensen, C. 2008. Entrepreneur behaviors, opportunity  
62 recognition, and the origins of innovative ventures. *Strategic Entrepreneurship*

1  
2  
3 *Journal*, 2(4): 317–338.

- 4  
5 Edelman, L., & Yli-Renko, H. 2010. The impact of environment and entrepreneurial  
6 perceptions on venture-creation efforts: Bridging the discovery and creation views of  
7 entrepreneurship. *Entrepreneurship: Theory and Practice*, 34(5): 833–856.
- 8  
9 Edmondson, A. 1999. Psychological safety and learning behavior in work teams.  
10 *Administrative Science Quarterly*, 44(2): 350–383.
- 11  
12 Eisenhardt, K. M., & Bourgeois, L. J. 1988. Politics of strategic decision making in high-  
13 velocity environments: Toward a midrange theory. *Academy of Management Journal*,  
14 31(4): 737–770.
- 15  
16 Eisenhardt, K. M., & Brown, S. L. 1998. Competing on the edge: Strategy as structured  
17 chaos. *Long Range Planning*, 31(5): 786–789.
- 18  
19 Fayard, A.-L., & Weeks, J. 2007. Photocopiers and water-coolers: The affordances of  
20 informal interaction. *Organization Studies*, 28(5): 605–634.
- 21  
22 Feldman, M., Siegel, D. S., & Wright, M. 2019. New developments in innovation and  
23 entrepreneurial ecosystems. *Industrial and Corporate Change*, 28(4): 817–826.
- 24  
25 Fiet, J. O. 1996. The informational basis of entrepreneurial discovery. *Small Business*  
26 *Economics*, 8(6): 419–430.
- 27  
28 Gaim, M. 2018. On the emergence and management of paradoxical tensions: The case of  
29 architectural firms. *European Management Journal*, 36(4): 497–518.
- 30  
31 Gaim, M., Wåhlin, N., & Jacobsson, M. 2019. The role of space for a paradoxical way of  
32 thinking and doing: A study of idea work in architectural firms. *Creativity and*  
33 *Innovation Management*, 28(2): 265–281.
- 34  
35 Garud, R., & Giuliani, A. P. 2013. A narrative perspective on entrepreneurial opportunities.  
36 *Academy of Management Review*, 38(1): 157–160.
- 37  
38 Garud, R., & Nayyar, P. R. 1994. Transformative capacity: Continual structuring by  
39 intertemporal technology transfer. *Strategic Management Journal*, 15(5): 365–385.
- 40  
41 Garud, R., Tuertscher, P., & Van de Ven, A. H. 2013. Perspectives on innovation processes.  
42 *The Academy of Management Annals*, 7(1): 775–819.
- 43  
44 Giddens, A. 1979. Introduction. *Central Problems in Social Theory*. Berkeley: University of  
45 California press.
- 46  
47 Grant, A. 2013. In the company of givers and takers. *Harvard Business Review*, 91(4): 90–  
48 97.
- 49  
50 Gupta, A. K., Tesluk, P. E., & Taylor, M. S. 2007. Innovation at and across multiple levels of  
51 analysis. *Organization Science*, 18(6): 885–897.
- 52  
53 Harper-Anderson, E., & Lewis, D. A. 2018. What Makes Business Incubation Work?  
54 Measuring the Influence of Incubator Quality and Regional Capacity on Incubator  
55 Outcomes. *Economic Development Quarterly*, 32(1): 60–77.
- 56  
57 Hatch, M. J. 1990. The symbolics of office design: an empirical exploration. In P. Gagliardi  
58 (Ed.), *Symbols and artifacts: Views of the corporate landscape*: 129–146. New York:  
59 Routledge.
- 60  
61 Hazy, J. K., & Backström, T. 2013. Human interaction dynamics (HID): Foundations,  
62 definitions, and directions. *Emergence: Complexity and Organization*, 15(4): 91–111.

- 1  
2  
3 Hazy, J. K., & Uhl-Bien, M. 2015. Towards operationalizing complexity leadership: How  
4 generative, administrative and community-building leadership practices enact  
5 organizational outcomes. *Leadership*, 11(1): 79–104.  
6  
7 Hernes, T. 2004a. *The spatial construction of organization*, vol. 12. Amsterdam: John  
8 Benjamins Publishing.  
9  
10 Hernes, T. 2004b. Studying composite boundaries: A framework of analysis. *Human*  
11 *Relations*, 57(1): 9–29.  
12  
13 Hernes, T. 2007. *Understanding organization as process: Theory for a tangled world*.  
14 London: Routledge.  
15  
16 Hernes, T., Bakken, T., & Olsen, P. I. 2006. Space, organizations and management theory. In  
17 S. Clegg & M. Kornberger (Eds.), *Advances in Organization Studies*, vol. 17: 44.  
18 Copenhagen: Copenhagen Business School Press.  
19  
20 Hill, C. W. L. 1990. Cooperation , opportunism , and the invisible hand : Implications for  
21 transaction cost theory. *Academy of Management Review*, 15(3): 500–513.  
22  
23 Holland, J. H. 1992. Complex adaptive systems. *Daedalus*, 121(1): 17–30.  
24  
25 Johansson, F. 2004. *The medici effect*. Boston, MA: Harvard Business Review Press.  
26  
27 Kauffman, S. 1996. *At home in the universe: The search for the laws of self-organization*  
28 *and complexity*. New York: Oxford university press.  
29  
30 Knudsen, T. 2003. Simon’s selection theory: Why docility evolves to breed successful  
31 altruism. *Journal of Economic Psychology*, 24(2): 229–244.  
32  
33 Kogut, B. 2000. The network as knowledge: Generative rules and the emergence of structure.  
34 *Strategic Management Journal*, 405–425.  
35  
36 Kornberger, M., & Clegg, S. R. 2004. Bringing space back in: Organizing the generative  
37 building. *Organization Studies*, 25(7): 1095–1114.  
38  
39 Korsgaard, M. A., Brower, H. H., & Lester, S. W. 2015. It isn’t always mutual: A critical  
40 review of dyadic trust. *Journal of Management*, 41(1): 47–70.  
41  
42 Kramer, R. 1999. Trust and distrust in organizations: Emerging perspectives, enduring  
43 questions. *Annual Review of Psychology*, 50(1): 569–598.  
44  
45 Kreiner, K., & Schultz, M. 1993. Informal collaboration in R & D. The formation of  
46 networks across organizations. *Organization Studies*, 14(2): 189–209.  
47  
48 Lazar, M., Miron-Spektor, E., Agarwal, R., Erez, M., Goldfarb, B., et al. 2020.  
49 Entrepreneurial Team Formation. *Academy of Management Annals*, 14(1): 29–59.  
50  
51 Levinthal, D. A., & Marino, A. 2015. Three facets of organizational adaptation: Selection,  
52 variety, and plasticity. *Organization Science*, 26(3): 743–755.  
53  
54 Lewin, A. Y. 1999. Application of Complexity Theory to Organization Science.  
55 *Organization Science*, 10(3): 215–215.  
56  
57 Lichtenstein, B. B., Dooley, K. J., & Lumpkin, G. T. 2006. Measuring emergence in the  
58 dynamics of new venture creation. *Journal of Business Venturing*, 21(2): 153–175.  
59  
60 Luhmann, N. 1995. *Social systems*. Stanford, CA: Stanford University Press.  
Lui, S. S., & Ngo, H. yue. 2004. The role of trust and contractual safeguards on cooperation  
in non-equity alliances. *Journal of Management*, 30(4): 471–485.

- 1  
2  
3 Mayer, R. C., Davis, J. H., & Schoorman, F. D. 1995. An Integrative Model of  
4 Organizational Trust. *Academy of Management Review*, 20(3): 709–734.  
5  
6 McDonald, R., & Gao, C. 2019. Pivoting isn't enough? Managing strategic reorientation in  
7 new ventures. *Organization Science*, 30(6): 1289–1318.  
8  
9 Mcknight, D. H., & Chervany, N. L. 1998. Initial trust formation in new organizational  
10 relationships. *Academy of Management Review*, 23(3): 473–490.  
11  
12 McMullen, J. S., & Dimov, D. 2013. Time and the entrepreneurial journey: The problems and  
13 promise of studying entrepreneurship as a process. *Journal of Management Studies*,  
14 50(8): 1481–1512.  
15  
16 Mian, S., Lamine, W., & Fayolle, A. 2016. Technology business incubation: An overview of  
17 the state of knowledge. *Technovation*, 50–51(2): 1–12.  
18  
19 Mihata, K. 1997. The persistence of 'emergence.' In R. Eve & L. Mary (Eds.), *Chaos,*  
20 *Complexity & Sociology: Myths, Models & Theories*: 30–38. Sage Publications:  
21 Thousand Oaks, CA.  
22  
23 Miller, G. J., & Smith, R. W. 1993. *Managerial dilemmas: The political economy of*  
24 *hierarchy*. Cambridge: Cambridge University Press.  
25  
26 Miller, J. H., & Page, S. E. 2007. Complexity in Social Worlds. *Complex adaptive systems:*  
27 *An Introduction to Computational Models of Social Life*: 9–31. Princeton, NJ:  
28 Princeton university press.  
29  
30 Mitchell, R. K., Smith, J. B., Seawright, K. W., & Morse, E. A. 2000. Cross-cultural  
31 cognitions and the venture creation decision. *Academy of Management Journal*, 43(5):  
32 974–993.  
33  
34 Murphy, P. J. 2011. A 2×2 conceptual foundation for entrepreneurial discovery theory.  
35 *Entrepreneurship: Theory and Practice*, 35(2): 359–374.  
36  
37 Nair, S., & Blomquist, T. 2019. Failure prevention and management in business incubation:  
38 practices towards a scalable business model. *Technology Analysis and Strategic*  
39 *Management*, 31(3): 266–278.  
40  
41 Nair, S., & Blomquist, T. 2020. The temporal dimensions of business incubation: A value-  
42 creation perspective. *International Journal of Entrepreneurship and Innovation*,  
43 21(1): 38–46.  
44  
45 Packard, M. D., & Clark, B. B. 2019. On the mitigability of uncertainty and the choice  
46 between predictive and non-predictive strategy. *Academy of Management Review*, In-  
47 press. <https://doi.org/https://doi.org/10.5465/amr.2018.0198>.  
48  
49 Pauwels, C., Clarysse, B., Wright, M., & Van Hove, J. 2016. Understanding a new generation  
50 incubation model: The accelerator. *Technovation*, 50–51: 13–24.  
51  
52 Peterson, M. F., & Meckler, M. R. 2001. Cuban-American entrepreneurs: Chance,  
53 complexity and chaos. *Organization Studies*, 22(1): 31–57.  
54  
55 Plowman, D. A., Solansky, S., Beck, T. E., Baker, L. K., Kulkarni, M., et al. 2007. The role  
56 of leadership in emergent, self-organization. *Leadership Quarterly*, 18(4): 341–356.  
57  
58 Poulis, K., & Poulis, E. 2016. Problematizing fit and survival: Transforming the law of  
59 requisite variety through complexity misalignment. *Academy of Management Review*,  
60 41(3): 503–527.  
Powell, W. W. 1996. Trust-based forms of governance. In R. M. Kramer & T. R. Tyler

- (Eds.), *Trust in organizations: Frontiers of theory and research*: 51. London: Sage.
- Prigogine, I., & Stengers, I. 1984. Order out of chaos: Man's new dialogue with nature. *New York: Bantam*. New York: Bantam New Age Books.
- Read, S., Sarasvathy, S. D., Dew, N., & Wiltbank, R. 2016. Response to Arend, Sarooghi, and Burkemper (2015): Cocreating effectual entrepreneurship research. *Academy of Management Perspectives*, 41(3): 528–536.
- Regine, B., & Lewin, R. 2000. Leading at the edge: How leaders influence complex systems. *Emergence*, 2(2): 5–23.
- Rogers, E. M., Medina, U. E., Rivera, M. a, & Wiley, C. J. 2005. Complex adaptive systems and the diffusion of innovations. *The Innovation Journal: The Public Sector Innovation Journal*, 10(3): 1–26.
- Roundy, P. T., Brockman, B. K., & Bradshaw, M. 2017. The resilience of entrepreneurial ecosystems. *Journal of Business Venturing Insights*, 8(11): 99–104.
- Rubin, T. H., Aas, T. H., & Stead, A. 2015. Knowledge flow in technological business incubators: evidence from Australia and Israel. *Technovation*, 41: 11–24.
- Sailer, K. 2011. Creativity as social and spatial process. *Facilities*, 29(1/2): 6–18.
- Santos, F. M., & Eisenhardt, K. M. 2005. Organizational boundaries and theories of organization. *Organization Science*, 16(5): 491–508.
- Sarasvathy, S. 2001. Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, 26(2): 243–263.
- Sarasvathy, S. D., & Dew, N. 2005. Entrepreneurial logics for a technology of foolishness. *Scandinavian Journal of Management*, 21(4 SPEC. ISS.): 385–406.
- Sarasvathy, S. D., & Venkataraman, S. 2011. Entrepreneurship as method: Open questions for an entrepreneurial future. *Entrepreneurship: Theory and Practice*, 35(1): 113–135.
- Secchi, D. 2009. The cognitive side of social responsibility. *Journal of Business Ethics*, 88(3): 565–581.
- Selden, P. D., & Fletcher, D. E. 2015. The entrepreneurial journey as an emergent hierarchical system of artifact-creating processes. *Journal of Business Venturing*, 30(4): 603–615.
- Shane, S. A. 2008. *The illusions of entrepreneurship: The costly myths that entrepreneurs, investors, and policy makers live by*. Yale: Yale University Press.
- Shankar, R. K., & Shepherd, D. A. 2019. Accelerating strategic fit or venture emergence: Different paths adopted by corporate accelerators. *Journal of Business Venturing*, 34(5): 1–19.
- Sheppard, B. H., & Tuchinsky, M. 1996. Micro-OB and the network organization. In R. M. Kramer & T. R. Tyler (Eds.), *Trust in organizations: Frontiers of theory and research*: 140–165. London: Sage.
- Simon, H. A. 1959. Theories of decision-making in economics and behavioral science. *The American Economic Review*, 49(3): 253–283.
- Simon, H. A. 1993. Altruism and economics. *The American Economic Review*, 83(2): 156–161.

- 1  
2  
3 Smith, C., & Comer, D. 1994. Self-organization in small groups: A study of group  
4 effectiveness within non-equilibrium conditions. *Human Relations*, 47(5): 553–581.  
5  
6 Spigel, B. 2017. The relational organization of entrepreneurial ecosystems.  
7 *Entrepreneurship: Theory and Practice*, 41(1): 49–72.  
8  
9 Spigel, B., & Harrison, R. 2018. Toward a process theory of entrepreneurial ecosystems.  
10 *Strategic Entrepreneurship Journal*, 12(1): 151–168.  
11  
12 Stacey, R. D. 2003. *Complexity and group processes: A radically social understanding of*  
13 *individuals*. New York: Brunner-Routledge.  
14  
15 Stacey, R. D. 2007. *Strategic management and organisational dynamics: The challenge of*  
16 *complexity to ways of thinking about organisations* (5th ed.). Harlow: Prentice Hall.  
17  
18 Startup Here Toronto cafe. 2018. *Startup here Toronto cafe*.  
19 <https://startupheretoronto.com/startup-here-toronto-cafe/>.  
20  
21 Sternberg, R. J., & Davidson, J. E. 1995. *The nature of insight*. Cambridge: The MIT Press.  
22  
23 Taylor, S., & Spicer, A. 2007. Time for space: A narrative review of research on  
24 organizational spaces. *International Journal of Management Reviews*, 9(4): 325–346.  
25  
26 Tourish, D. 2019. Is Complexity Leadership Theory Complex Enough? A critical appraisal,  
27 some modifications and suggestions for further research. *Organization Studies*, 40(2):  
28 219–238.  
29  
30 Townsend, D. M., Hunt, R. A., McMullen, J. S., & Sarasvathy, S. D. 2018. Uncertainty ,  
31 knowledge problems , and entrepreneurial action. *Academy of Management Annals*,  
32 12(2): 659–687.  
33  
34 Van de Ven, A. H. 1986. Central Problems in the Management of Innovation. *Management*  
35 *Science*, 32(5): 590–607.  
36  
37 van de Ven, A. H., & Poole, M. S. 1995. Explaining development and change in  
38 organizations. *Academy of Management Review*, 20(3): 510–540.  
39  
40 Vogel, P. 2016. From venture idea to venture opportunity. *Entrepreneurship: Theory and*  
41 *Practice*, 41(6): 943–972.  
42  
43 Waldrop, M. M. 1992. *Complexity: The Emerging Science at the Edge of Order and Chaos*,  
44 vol. 45. New York: Simon and Schuster.  
45  
46 Walloth, C. 2016. *Emergent Nested Systems: A Theory of Understanding and Influencing*  
47 *Complex Systems as Well as Case Studies in Urban Systems*. New York: Springer.  
48  
49 Weinfurter, T., & Seidl, D. 2019. Towards a spatial perspective: An integrative review of  
50 research on organisational space. *Scandinavian Journal of Management*, 35(2): 1–30.  
51  
52 Welter, F. 2012. All you need is trust? A critical review of the trust and entrepreneurship  
53 literature. *International Small Business Journal*, 30(3): 193–212.  
54  
55 Wiltbank, R., Dew, N., Read, S., & Sarasvathy, S. D. 2006. What to do next? The case for  
56 non-predictive strategy. *Strategic Management Journal*, 27(10): 981–998.  
57  
58 Zimmerman, B. J., & Hurst, D. K. 1993. Breaking the boundaries: The fractal organization.  
59 *Journal of Management Inquiry*, 2(4): 334–355.  
60



FIGURE 1

From Scattered Ideas to Venture Concepts

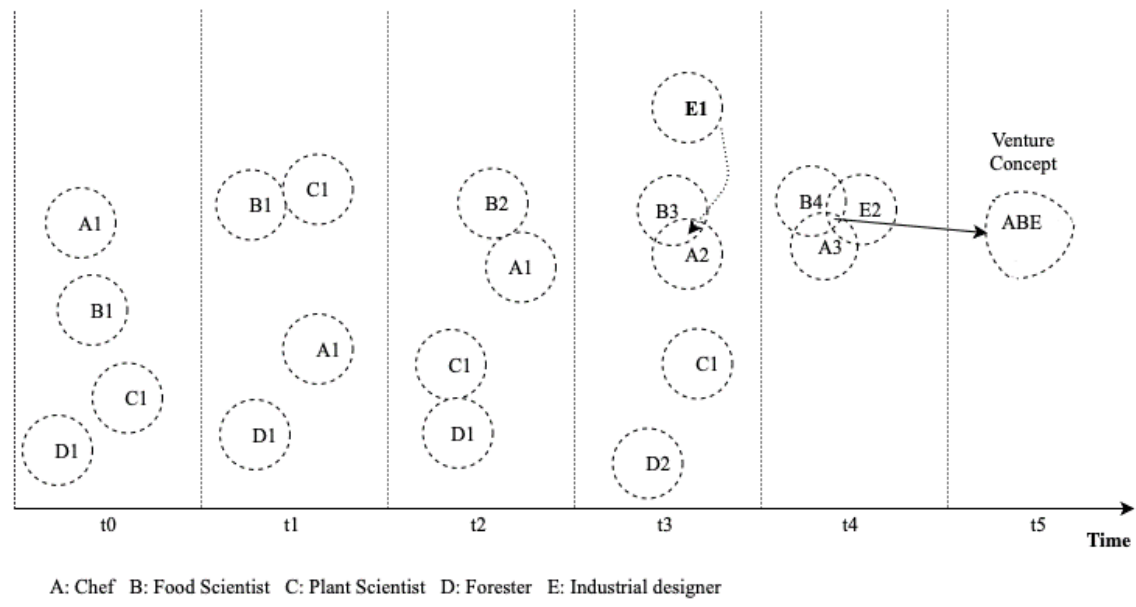
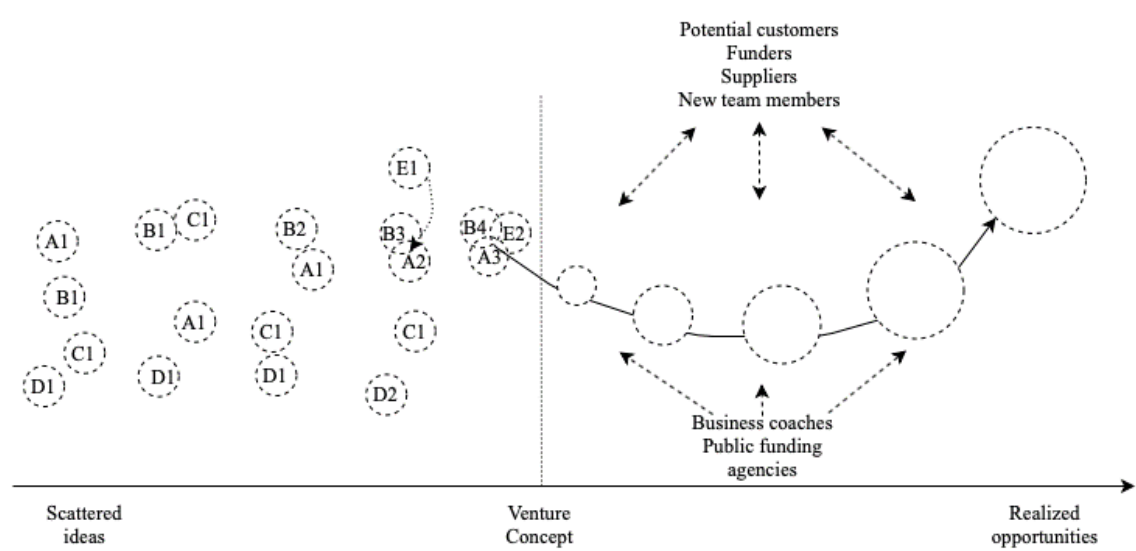


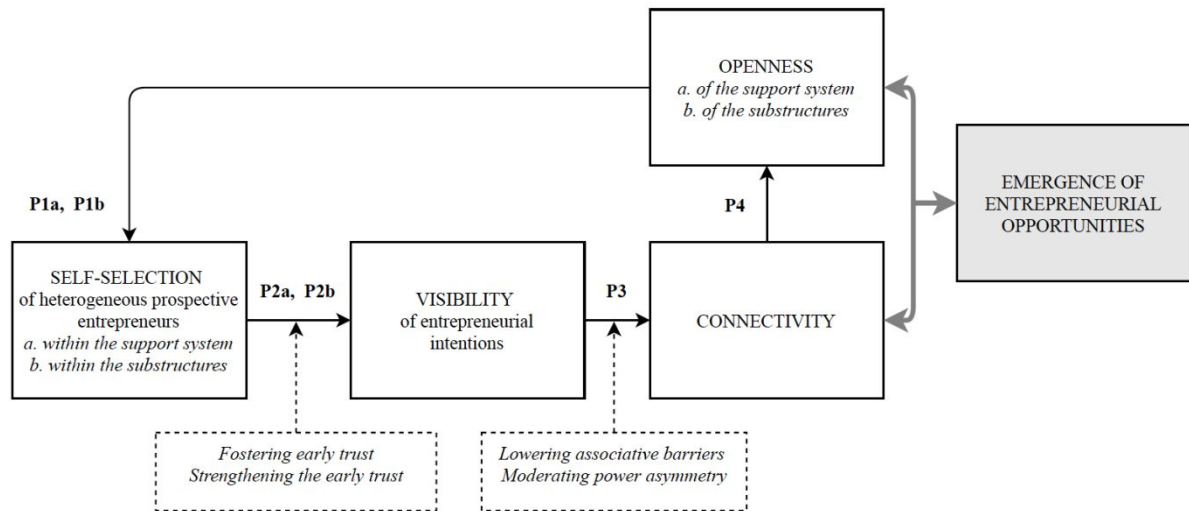
FIGURE 2

From Scattered Ideas to Venture Concepts and then Realized Opportunities



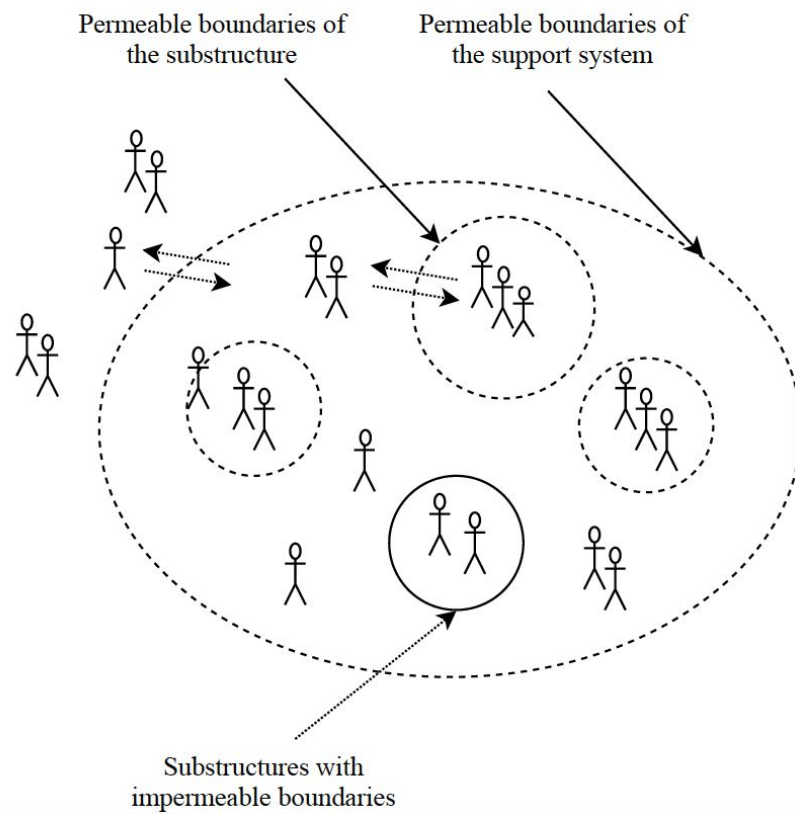
**FIGURE 3**

A Model of Organizing Support Systems



**FIGURE 4**

The Boundaries and Actors of the Support System



### Author Biographical Statements

**Sujith Nair** (sujith.nair@umu.se) is Associate Professor of Entrepreneurship at Umeå School of Business, Economics and Statistics, Umeå University, Sweden. His research focuses on new venture creation, entrepreneurial ecosystems and the emergence of technological innovations.

**Medhanie Gaim** (medhanie.gaim@umu.se) is Assistant Professor of Management at Umeå School of Business, Economics and Statistics, Umeå University, Sweden. His research focuses on on paradox theory, entrepreneurial ecosystems and new venture creation.

**Dimo Dimov** (d.p.dimov@bath.ac.uk) is Professor of Entrepreneurship and Innovation at University of Bath, UK and visiting professor at Reykjavik University, Iceland. His research focuses on entrepreneurial thinking, processes, and practice.