

## How Can the EE Framework be Improved?

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The external enablement perspective was first described in Davidsson's (2015) paper that critiqued the concept of "entrepreneurial opportunities" and offered an alternative view organized around the concepts of external enablers, new venture ideas, and opportunity confidence. Since then, the perspective has been further developed in a series of programmatic papers (Davidsson, Recker and von Briel, 2020a; Davidsson, Recker and von Briel, 2020b; Kimjeon and Davidsson, 2022) as well as more topically focused papers and empirical studies, e.g., Chen et al., (Chen, Cui, Hunt and Li, 2020; Davidsson, Recker and von Briel, 2021). In 2022, Davidsson decided that it was time to take stock of the perspective and convened two international workshops to which he invited proponents and critics of the perspective. Although I was not involved in the genesis of the perspective, I saw it as a chance to bring innovative ideas into the study of entrepreneurship and so volunteered to present some ideas about how the perspective could be improved. This paper is a result of that presentation.

I begin by noting the contributions from EE that we've already observed and then offer some ideas about ways in which concepts and principles in the perspective could be further developed to increase their usefulness.

### **Positive Contributions of the EE View**

The EE perspective has already made many positive contributions to entrepreneurship research and theory. I have identified six contributions, as shown in Table 1.

First, it's an excellent alternative to the opportunity creation/discovery view of entrepreneurship that has caused so much confusion over the past several decades. By clearly separating the development of a new venture idea from the realization of value from that idea, the EE perspective makes an analytical distinction that eluded the opportunity creation proponents. Second, it highlights the importance of studying organizations "with regard to their fitness in varying environments" (Aldrich, 1971). Moreover, in its eclectic and inclusive approach, EE draws attention to heterogeneity across environments, rather than characterizing them in holistic terms.

#### **Table 1. Contributions of the EE Framework**

1. Reveals the contradictions and conundrums of the opportunity creation/discovery debate
2. Takes environments seriously
3. Provides a comprehensive catalog of key components of entrepreneurial processes
4. Makes compelling argument against an over-emphasis on agentic entrepreneurial behavior
5. Moving to a more contingent language
6. Because of the process through which it is being developed, it remains open to revision & constructive criticism

Third, in addition to positing mechanisms that drive new venture creation, it's also a catalog of concepts and principles and an accounting scheme for keeping track of them in an empirical project. As Kimjeon and Davidsson (2022) pointed out, a major benefit is that the perspective gives us a shared vocabulary to

talk about organizations and environments. In this early inchoate stage, having a shared vocabulary is helpful for developing hypotheses for testing and communicating ideas across an extremely heterogeneous field.

Fourth, Davidsson's papers on the opportunity and discovery views of entrepreneurship have also made it very clear that the EE perspective does not support an heroic perspective on entrepreneurship (Davidsson, 2015). The EE perspective is fully aware that entrepreneurs play many roles in new venture creation, including those of heroes, villains, and fools (Aldrich, 2011). Fifth, EE authors are also very good at framing their questions as "under what conditions," or "to what extent does..." I contrast this with question framing in terms of yes/no or absolutes, which cuts off nuanced and subtle discussion about the effects of environmental conditions on organizations and their emergence. "How" and "what" questions often do this. We need questions that have degrees of variation across potential answers, giving us more room for analytic maneuver.

Sixth, Davidsson and his collaborators are open to constructive criticism. The papers published since 2015 showed that the perspective is a work in progress that has attracted many adherents. I think of the EE view as an "open source" perspective to which anyone can contribute. There is no gatekeeper, no entry card required at the door. All promising ideas are accepted.

### **The EE Perspective Unbundles Three Distinct Questions**

In Table 2, I've indicated the ways in which the EE perspective unbundles three analytically distinct questions. Even if these questions are not phrased as I portray them, they emerge from the developing framework I would put answering them at the top of the agenda for the frameworks proponents.

#### **Table 2. EE Perspective Unbundles 3 Distinct Analytic Questions**

1. What has happened to create conditions for a potential *new venture idea* to be successful?
2. Which agents will try creating *new ventures* in response to those conditions?
3. What constraints must *new ventures* meet IF they are to gain traction?

First, under what conditions do potential ventures come into being and what helps them be successful? The perspective emphasizes that innovative ideas are not sufficient to catalyze new venture creation. Instead, external conditions are crucial enablers that shape whether nascent entrepreneurs will find a receptive market for their project. This question has been addressed in many of the published papers. Second, what's the role of humans in the venture creation process? As a multilevel perspective, EE recognizes individuals, teams, and other collectivities as embodying the learning agents that make adaptation to changing internal conditions possible. In this respect, I view the EE perspective as compatible with evolutionary theory's emphasis on variation as an agent-led process. Third and most importantly, what are the constraints that new ventures face? As shown by the empirical projects pursued by EE researchers, the perspective encourages analysts to compile historically based examples of conditions that facilitate or discourage new venture creation. I will review some data later to show just how difficult it is for new ventures to survive.

### **Fundamental Principles of Organization/Environment Relations**

The fundamental principle in my work has always been that explanations of organizations and organizational change must give weight to both organizations *and* environments. That idea was first developed at length in my book *Organizations and Environments* (Aldrich, 1979) and in my paper with Jeff Pfeffer on “Environments of Organizations” (Aldrich and Pfeffer, 1976). When written as an equation, it is quite simple: Organizations x Environments = Outcomes. The “x” in the equation is meant to indicate that outcomes are an interaction between organizational characteristics and environmental characteristics. The perspective doesn't privilege either side. Answers must always involve the interaction of the two. The OxE perspective explains the composition of populations of organizations by focusing on the distribution of the resources in environments and the terms on which they are available.

Similarly, the EE perspective emphasizes environmental change but does not locate all explanations in structure. Instead, it's about agency and structure and about examining the fit or relationship between organizations and environments.

It's important at this point to recognize that what happens to a single venture is interesting and important, but what's more important is focusing on populations of organizations. If other organizations are doing something in a population, they are most likely affecting the focal organization of interest, as well. The organization/environment perspective focuses on collective action and collective activities by organizations within populations.

## **Evolutionary Explanations**

Because I see many points of tangency between evolutionary explanations and the EE framework, I begin with a brief explanation of evolutionary principles, focusing on the three central ideas of variation, selection, retention. The evolutionary perspective incorporates each of these three interrelated processes, viewing them as intertwined rather than proceeding serially. The three are algorithmic. For evolution to occur, there must be mechanisms to introduce variations. There must be consistent selection processes and some mechanisms that help retain selected variations, enabling them to persist. If these three components exist -- mechanisms of variations, selection processes, and mechanisms that retain what has been selected -- the units under investigation will evolve in directions guided by their environments. Populations of organizations will track their changing environments, whatever those units are, no matter the speed, the pace, or the rhythm. The populations under investigation will become adapted to their local environments.

Evolutionary theorists do not try to predict the future, but they can use the principles to explain the past. This is an important distinction: we don't try to predict the future, but we can explain the past. People sometimes ask, isn't evolutionary theory backward looking? And I say to them, have you ever collected data on something that hasn't happened yet? They say, I never thought of it that way! All the data you work with is about things that have already happened. You cannot collect data from the future. Every research project is about the past, once data collection begins. Evolutionary theory is just more explicit about what it is doing.

*An example of variation/selection/retention.* On a very prosaic level, I had an experience at breakfast the morning of the conference when I went down to the hotel restaurant to order. I walked up to the counter and noticed that there was no hot oatmeal among the offerings. Therefore, I asked one of the servers

behind the counter if they would make a bowl of hot oatmeal for me. They answered, of course, I will get that for you right away. Ten minutes later, I was still waiting. When I went back to the counter, I discovered that the server had forgotten about me. This incident reminded me of a research project that William Foote Whyte (Whyte, 1948) carried out back in the 1940s, when he was studying what I would call the generation and perpetuation of routines in relationships between servers and chefs in restaurants. He noticed that restaurants where the servers gave oral orders to the chef had a lot of interpersonal conflict, with chefs getting angry when servers forgot to give them orders and servers getting angry when chefs forgot to do what they had requested. The simple solution involved creating a routine where servers put their orders on a piece of paper and then stuck it on a revolving wheel that would turn as each new order was added. Chefs could look at the pieces of paper on the wheel and plan what to make next. This simple routine, once in place, reduced interpersonal conflict among the staff. So here I was, 70 years later, the victim of a failure of organizational routines!

A more general point is that routines are often intentionally created via deliberate selection mechanisms, but then disappear through failure to deeply encode them in a retention process. Moreover, the development of effective routines and organization does not necessarily mean that it will diffuse to the entire population. Once diffused, it is still vulnerable to being lost, unless consistent selection pressures keep it in place. It was my bad luck to be dining at a restaurant that either never had the routine, never hired anyone who knew about the routine, or had such high staff turnover that the routine could not be retained in the face of massive knowledge loss. It's a reminder that in the digital age, organizations that rely on oral communication for key processes are in danger of being outcompeted by those that have moved to digital information transmission, such as entering orders in computers and having them read on screens by other staff.

Variations can be intentional, as in my example from Whyte's study of restaurants, and people can generate variations because they are goal-directed and have a new venture idea in mind. Or, as Davidsson and others have said in their papers, variations can be unintentional or blind, and things can happen for reasons that were not intended by the people involved. But nonetheless they are consequential.

Selection, in the evolutionary perspective, is primarily about the selective elimination of variations. Evolution doesn't generate variations. Instead, evolution takes *advantage* of variations. There are selection forces that are external to an organization, such as market forces, competitive forces, and pressures to conform to institutionalized norms. There are also internal selection processes, such as hiring and promotion policies, as shown in a paper (Lucas, Bellavitis and Park, 2023) that investigated a prominent digital networking platform's recruiting during the early COVID-19 pandemic, using the EE framework. The example of routine generation restaurants shows organizations working toward greater efficiency via internal selection processes. Organizations learn from trial and error as well as intentional attempts at improvements, seeking variations that give them competitive advantages, compared to the other organizations in their populations.

Selected variations are retained through well-rehearsed retention mechanisms that have been developed internally or copied from other organizations. Most management textbooks are fundamentally about the retention of desirable variations identified by staff and then encoded into the structure of organizations through procedures such as rules and regulations, hardwiring into technology, new training programs for staff, revised standard operating procedures, and so forth. For example, one of the co-creators of the EE

framework, Jan Recker, works in the field of communication and information systems, where much of the discussion is about ways to institutionalize selected variations.

### Assessing the EE Perspective’s Relation to Evolutionary Theory

Now that I have explained the fundamental components of the evolutionary perspective and described the three processes of variation, selection, and retention, I will show how it can be used to clarify some aspects of the EE perspective. Table 3 is based on a chart in Aldrich, Ruef, and Lippmann (2020) that compares six of the most popular perspectives on organization theory and shows how each of them accounts for these three processes.

For illustrative purposes, I'm just going to take just one theoretical perspective, new institutional theory (NIT), as shown in Table 3. New institutional theory is a theoretical perspective that tries to explain organizational change by focusing primarily on variations arising from external sources. In their classic article on organizational isomorphism, DiMaggio and Powell (1983) identified two kinds of isomorphism: competitive isomorphism and institutional isomorphism. Competitive isomorphism is driven by the external pressures of markets that select the most effective routines used by populations in the same niche. Institutional isomorphism, by contrast, is not generated directly by competitive forces but rather by three types of institutional forces: normative, coercive, and mimetic, which are processes that make organizations in the same field become more similar to each other over time. Normative isomorphism is driven by the pressures of professionalization and education. Organizations adopt the norms and standards of their professions and hire people with similar educational backgrounds and skills. Coercive isomorphism is caused by the external forces that influence an organization, such as the state, the law, or the funding sources. Organizations conform to the rules and expectations of these forces to gain legitimacy and resources. Mimetic isomorphism occurs when organizations imitate or model themselves after other successful organizations in their field, especially in situations of uncertainty or ambiguity. Organizations copy the practices and strategies of their peers or competitors. The selection process in the NIT view is thus conformity-driven by the forces of institutional isomorphism. Retention is through socio-cultural processes within organizations that lead their members to adopt simple understandings and interpretations of organizations’ goals and what they should be doing in playing their own role in an organization.

**Table 3. Comparison of NIT and EE in Relation to Evolutionary Theory**

Perspective	Variation	Selection	Retention
New institutional theory	Variations introduced from external origins, such as pressures from regulatory agencies	Selection via conformity	Retention through transmission of shared understandings
External enablement	Mechanisms within new ventures, shaped by new venture ideas, enacted/edited &	EE’s change the selection environment through changes in external factors	Mechanisms enacted/edited that enable new ventures’

	enabling new ventures to emerge, survive, & grow	(technological, regulatory, demographic, socio—cultural, macroeconomic, political, natural – environmental, etc.) that change the terms on which <i>resources</i> are available	selected routines to persist
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When I asked the same questions of the EE perspective as of the NIT perspective, the answers gave us some insight into the implicit dynamics assumed by the perspective when it comes to sources of variation, selection, and retention. To construct Table 3, I read the foundational papers of Davidsson and his colleagues, as well as other papers that have used the perspective in empirical analyses. Because the EE perspective does not formally acknowledge the core principles of evolutionary theory, the connections I made are only implicit in the language used by EE authors and thus my speculations should be taken as tentative. Nonetheless, a clear picture emerges.

First, regarding variation, the “mechanisms” component of the EE perspective is where variation enters the picture. The mechanisms are shaped by new venture ideas, a concept that Davidsson developed at length (Davidsson, 2015). As new ventures emerge, mechanisms are edited and enacted that affect their likelihood of emerging, surviving, and growing. That activity is what generates variations that subsequently can be selected for. If we classify “mechanisms” as the sources of variation and change processes, then where should we classify “external enablers”?

I put enablers into the selection column. External enablers change the selection environment, from my point of view, and thus change the terms in which resources are available and the terms by which they can be acquired via mechanisms. In the context of specific enablers, researchers ask about the terms on which nascent entrepreneurs gain access to resources. Thus, I don't see external enablers as first movers or initial stimuli. Instead, as posited in the evolutionary scheme, humans and organizations are constantly generating variation, providing the raw materials on which external enablers have their effects.

Variation is an irrepressible characteristic of humans, who have genetically evolved to be variation generators (Jackson, 2023). Even though much of what humans do is constrained by their environments, they are still capable, under diverse circumstances, of generating boundless variation, of doing mysterious things that haven't been seen before, because that's part of their genetic makeup. Humans within organizations can do the same. Even the tightest organizations put together extremely well continue to face a strong likelihood of experiencing internal variations not previously seen and not

intended. So, what the EE group calls changes *external factors* are listed here as selection forces. I classify them as “selection forces” because they are changes in the terms on which resources are available, altering the external constraints faced by organizations.

Regarding retention, it is only implicit in the model because the EE scheme does not contain an explicit retention mechanism. However, as professors of management and organization studies in business schools, members of the EE team implicitly realize that the EE perspective must include allowances for retention mechanisms. It would make no sense to talk about changes in organizational forms, regardless of how induced, without positing some way for those changes to be institutionalized and perpetuated. Thus, the scheme *must* account for retention. Otherwise, how could organizations’ new outcomes, generated by changes in EEs, persist from one day to the next? Why is an organization fundamentally the same as it was the day, week, month, or year before? Continuity arises from mechanisms, as they are enacted/edited, that enable new ventures’ selected routines to persist. They thus facilitate new ventures becoming stable entities within their populations.

In the past several decades, scholars have made substantial strides in understanding the micro-processes that underlie retention (Feldman, Ozcan and Reichstein, 2020). Certainly, organization and management scholars have always been aware of structures like bureaucratic files and standard operating procedures (Weber, 1947). What’s been added by the scholars studying routines at the micro level has been a much greater understanding of the cognitive and social psychological dimensions to the retention of routines. Researchers using ethnographic and archival research designs have been strong contributors to this literature (Salvato and Rerup, 2011).

EE scholars need not change their entire scheme to implement my suggestion. Instead, I’m requesting that they examine it from the point of view of evolutionary thinking. Researchers should ask: Do you account for variation? Do you account for selection? Do you account for retention? Does this change any of the ways you're thinking about the process? I think considering the components of the evolutionary perspective and how they map onto new venture creation and organizational change would give the EE perspective new tools to create dynamic models of entrepreneurs interacting with their environments.

To summarize, I’m arguing that EE perspective would benefit by being viewed through the lens of evolutionary theory. To the scholars who are working on EE, I recommend examining the principles of evolutionary theory and the ways in which it can be applied to entrepreneurship and organizational change. It is a well-developed perspective with a useful vocabulary for thinking about emergence and entrepreneurial processes.

## **Big Picture Issues**

Let me turn now to some issues that were suggested by using an evolutionary lens, but which stand alone as issues that need to be dealt with by the developers of the EE perspective.

*What kinds of new ventures are included and at what level of analysis?*

Programmatic statements concerning the EE perspective mention “new venture creation,” but do not differentiate among three vastly diverse types of new ventures. In Table 4, I have listed three potential roles new ventures could play in organizational communities. First, new ventures could simply copy or slightly modify current forms within existing populations. I label these the “reproducers.” They would certainly pose a competitive challenge to existing organizations within their population. But, because they are not based upon innovations in the form itself, their creation helps the population replace organizations that exit, thus enabling the population to persist. For example, most neighborhood retail and service businesses look very much like every other business in the same population. Unless the neighborhood’s population grows, there will be space for a new venture only if an existing venture exits the population. I would estimate that 95% to 99% of new ventures fall into this category.

Second, some new ventures innovate by adopting a form that is significantly different from existing organizations’ forms, potentially posing a competitive challenge if the new form is more efficient or perceived as more effective by consumers and clients. They don’t create new populations or new industries, but they do challenge current forms. For example, petrol stations may begin selling snacks and soft drinks, drawing customers away from petrol stations that rely only on selling petrol. Over time, the new forms may displace current forms, thus transforming a population. If they succeed, they will move from a minority to a dominant status in their populations.

**Table 4: What Kinds of New Ventures & What Level of Analysis**

Role of the new venture	Consequences
Reproduce	reproduce existing forms within existing populations
Challenge	pose a competitive challenge to current forms within existing populations
Create	create new forms that do not fit into existing populations and therefore potentially generate a new population

Third, a new venture may offer a product, service, or mode of operating that is so different from current organizations that it faces cognitive and legitimacy problems. Because it doesn’t fit into existing populations, entrepreneurs creating such new ventures will struggle to find a niche in the community (Aldrich & Fiol, 1994). They will have to deal with different organizing problems than organizations that are simply reproducing forms or challenging contemporary forms in existing populations. Instead, they will have to work hard to convince skeptical potential customers and clients that what they offer is efficacious, safe, and dependable. They may have to lobby government officials and administrators to gain the legitimacy necessary to meet licensing, zoning, and other regulatory requirements. Over the



past several decades, research has shown that new ventures that are the first of their kind typically turn to collective and collaborative actions and their pursuit of cognitive and sociopolitical legitimacy. These organizations are the types of new ventures that venture capitalists and other professional investors are most concerned about and which business school classes on entrepreneurship spend so much of their time discussing (Aldrich and Ruef, 2018).

These three venture types are sufficiently different that the EE perspective needs to take them into account in its framework. The problems of organizing faced by new ventures are distinctive enough that lumping them all together under the label of “new venture” fails to capture the heterogeneity they represent in organizational communities. How much of the perspective is about the mundane reproduction of existing forms and how much is about, at the other extreme, the creation of entirely new populations? That question needs to be clarified.

*Is the EE perspective a totalizing one?*

Davidsson and his colleagues argue that “EE is not a not a theory. Instead, it’s just a perspective.” However, I would argue that it is a *totalizing* perspective. By that I mean that it is hard to see anything in the firmament of entrepreneurship studies that the perspective leaves out. About everything that I would consider to be part of the portfolio of entrepreneurship researchers is covered somewhere in this perspective. It can be extended to cover an incredible range of issues, especially given the definition of “mechanisms” and “roles.” Hence, my argument that it's a totalizing perspective.

The EE proponents simply must accept that burden. If they don’t want to accept the challenge of remaining a totalizing perspective, what is the alternative? What would they remove from the perspective? What limited issues would they take on to escape the burden and the joy of working with a totalizing perspective?

*Does the EE perspective accurately depict the scale and scope of normal population dynamics?*

I assume that, for the moment, the EE scholarly community will retain the totalizing orientation of the perspective and therefore not intentionally limit the scope of the kinds of organizations, industries, populations, and organizational communities that can be studied. The question then arises, to what extent has the perspective taken adequate account of the scale and scope of normal population dynamics? To what extent are EE scholars cognizant of the scale and scope of normal population dynamics? Clearly, in his pioneering work with the Swedish PSED, Davidsson had to review population entry and exit statistics for the entirety of the Swedish business population and has done the same for the Australian business population (Davidsson, 2006).

Statistics on normal population dynamics in a typical modern capitalist economy support the argument that business populations experience an extraordinarily elevated level of churn. The United States is not “typical,” of course, but entrepreneurship journals tend to treat it as such and thus I will use it as my

example. Table 5 lists, in order from top to bottom by degree of mundanity/rarity, statistics on businesses and new venture creation in the United States.

**Table 5. Population Dynamics at Multiple Levels of Analysis**

Level	Statistics	Category
Entrepreneurs	12.1 million people/year involved as owners of startups (2005)	Mundane
Startup attempts	7.4 million attempts/year (2005)	Mundane
Employer establishments	One million new employer establishments/year (2021)	Mundane
Externally funded ventures	71,000 ventures receiving angel funds/year (2019)	Rare
Venture capital deals	4,375 new VC deals/year (2022)	Rare
Publicly traded firms	4,500 publicly held US firms (2022)	Black Swans
Initial public offerings	181 IPOs in USA (2022)	Black Swans

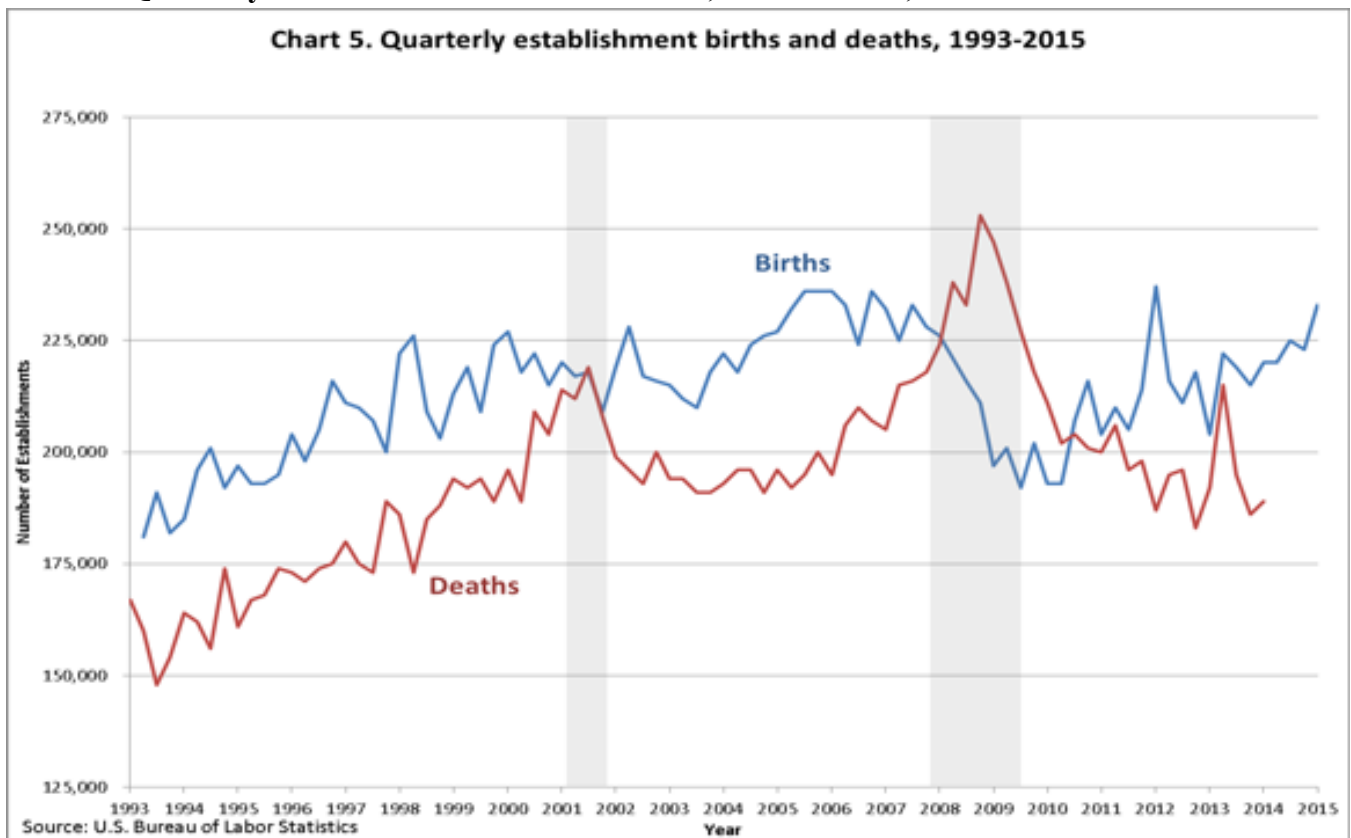
At the top, at the level of the individual entrepreneurs involved with mundane startups in the United States, the best estimate we have comes from the Panel Study of Entrepreneurial Dynamics of the early 2000s and thus is dated. Nonetheless, many subsequent studies have confirmed that estimate. The PSEDI and PSEDI confirmed Paul Reynolds’ long standing claims about the number of people in the United States who get involved every year in startup attempts (Reynolds and White, 1997). Our 2005 estimate was that about 12.1 million people were involved as owners in nascent ventures, comprising about 7.4 million startup attempts (Reynolds, 2007). Although that number seems very high, it reflects the replacement of the large number of businesses that exit every day. A good rule of thumb is that about 10% of the business population in an average year will exit and be replaced. The proportion varies enormously by industry, and is conditioned by many factors, including business age and size (Yang and Aldrich, 2017).

At the level of employer establishments, as measured in the Business Employment Dynamics Database collected by the Department of Commerce, about 1.3 million new employer establishments were created and 935,000 were closed in 2021. About 80% of the new employer establishments are single unit firms, not part of chains or company owned franchises. New employer establishments added almost four million new jobs, whereas the closed establishments represented job losses of about 2.8 million. Note that employer establishments represent only about 20 percent of all new establishments, as most new establishments don’t have employees. At the level of rare events, with respect to funding, about 71,000 new ventures received funds from angel investors, totaling about \$29.1 billion. Understandably, there were fewer venture capital investments in new ventures, with about 4,375 new deals concluded, representing almost \$24 billion. Finally, at the level of black swans, there were about 4,500 publicly held firms in the United States in 2022 and only 181 initial public offerings. As Davis has pointed out,

the number of publicly traded firms in the US has been declining for some time, dropping by about 50 percent since the late 1990s (Davis, 2013).

To gain an appreciation of the amount of churn but also the degree of regularity in business populations, I offer a chart showing quarterly establishment births and deaths in the United States between 1993 and 2015.

**Chart 1. Quarterly establishment births and deaths, United States, 1993 – 2015**



New venture creation is very dynamic, but it's also very orderly and predictable. The data set in chart 1 is for employer establishments, starts in 1993 and runs through 2015. Notice the long term secular trends with minor year-to-year variations but with a clear degree of consistency. Where would we place *external enablement* in these trends and what would be its role? Referring to the distinctions I made earlier in the types of new ventures, I would say that most of these new venture entries are reproducers, entering because space has been made for them by the exits of organizations no longer viable, in their current context.

Although the people creating the chart used the label “death” for the exits, that’s not fully accurate for many of them. They could’ve been sold to somebody else, closed because the owners got tired of the

daily slog, because they wanted to retire, and so forth. Most of the “births” are employer organizations simply filling the holes that have been left by those businesses that exited.

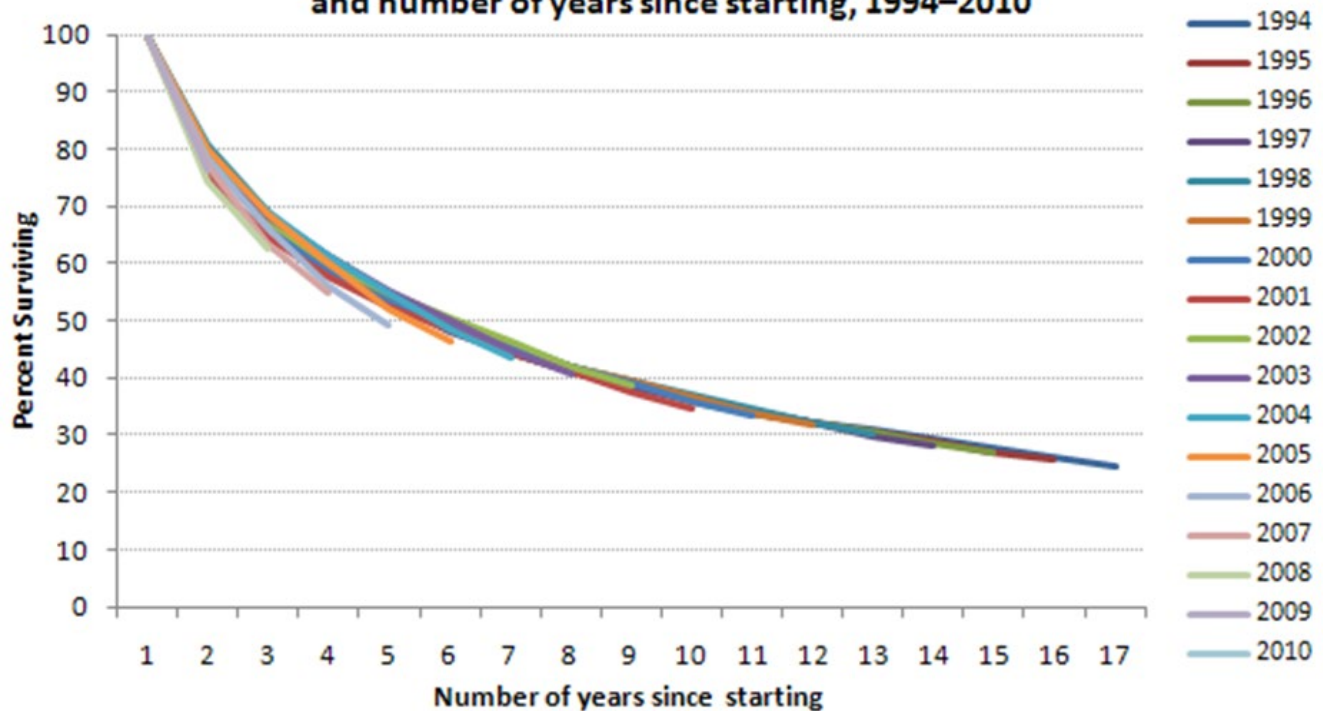
How does EE deal with the magnitude and direction of the numbers in this chart? How will it manage the mundane replicating and reproducing ventures? Is there even a need for applying the EE perspective to the great bulk of these new ventures? Are we studying new ventures or new enablers?

Another approach, given such dynamics, would be to say that let’s not bother with the mundane but rather limit ourselves to the challengers or even the creators of new populations. Let’s study the new ventures that are challenging current organizational forms in these populations. But we face a fundamental problem in that the new ventures at the forefront of an emerging industry will be completely invisible in such aggregate data. It would be like trying to spot the emergence of the Swedish wine industry when it was at the level of only 30 emergent firms and struggling for legitimacy (Anonymous, 2023). We won’t find such populations in our aggregate data. So how do we apply the EE perspective to them?

Longitudinal data on trends in business entries and exits highlight the question of how the EE perspective will treat the routine business dynamics in typical populations. The following chart shows the survival rate of cohorts of new employer establishments, by year started and number of years since starting from 1994 through 2010. The plot shows the percentage of new establishments surviving through a given year, contingent upon having lived up to that year. We see that most new employer establishments have a very unhappy fate. Only about 50% of each cohort survived through their fifth year. The curves are remarkably consistent and when they are overlaid, ignoring the starting year, show a amazing regularity in the survivor function. They allow us to infer a very strong empirical generalization: life for a new employer business is punishingly difficult, although things get better if the business survives for at least five years. Nonetheless, taken together, employer businesses face a steep learning curve.

Whatever their new venture idea, most new ventures fail to emerge from the startup process. Of those that do, few survive very long. But we should not call them “failures,” as many good things happen because of new ventures. Founders and employees can learn something from their experience and take that experience with them to other organizations (Sarasvathy, Menon and Kuechle, 2013). Innovations that were incubated in an organization that eventually exited might persist and be improved upon by the founders and employees of the closed organization.

### Survival rates of establishments, by year started and number of years since starting, 1994–2010



Source: U.S. Bureau of Labor Statistics

The challenge for the EE perspective is to guard against overly optimistic language about new venture ideas, startups, and mechanisms that promote new venture efficacy. Considering the pattern shown in these data, we might argue that most nascent entrepreneurs fumble the enablement they've been gifted by an external enabler. That is, the mechanisms they enact don't seem effective within their current environments. Is the EE perspective prepared to explain high exit rates? A perspective that wants to help us understand the creation of new ventures needs to help us understand why, with all the mechanisms available, most new ventures fail. The EE perspective must confront this question head-on.

#### The 4-part EE Framework and Its Complexity

In the previous section, I focused on issues that were suggested by taking an evolutionary view of the EE framework. In this section, I focus on two issues that flow from the richness and complexity of the framework: the high degree of selectivity involved in applying the framework, and an overreliance on classical economics and its conception of equilibrium.

*Investigators will need to exercise a high degree of selectivity in applying the framework.*

The EE framework consists of four overarching parts: enablers, characteristics, mechanisms, and roles. The scheme would already be complex if we just thought about the diverse ways in which these four might be sequenced or taken in combination. Each of them, however, can be further disaggregated to multiple dimensions. For example, in one version of the framework, there are seven enablers and nine

mechanisms. Many EE scholars, in papers that have elaborated the framework, propose taking combinations of the disaggregated pieces and using them in research designs and analysis. They advance the possibility of investigating combinations of distinct aspects of the enabling mechanisms, individually or collectively, that contribute to one or more roles that can have an impact on the venture creation and development process. For example, Davidsson, Recker, and von Briel (2021) wrote that “enabling mechanisms individually or collectively contribute to one or more *roles* EEs can have in the venture creation and development process.” A moment’s reflection reveals that juggling the number of dimensions involved when combinations are allowed complicates the analyses of the EE framework. We could ask how much selectivity will be involved in choosing what to study.

As a thought experiment, imagine a research design where we associate the nine mechanisms with combinations of the seven external enablers that could have triggered them. How much complexity might we introduce into the analysis? The mathematical formula for combinations, where order is not important, no repetitions are allowed, and all items are unique is as follows:

$n = \# \text{ of items, } r = \# \text{ of items to select, and } C = \# \text{ of combinations. Then } C_r = n! / (n-r)! r!$

If we include all seven *enablers* in combinations of two and include each taken singly, the result is 28 possibilities. If allow combinations of three, plus combinations of two, plus taken singly, then we generate 63 possibilities.

If we include nine *mechanisms* in combinations of two and include each taken singly, the result is 93 possibilities.

Now, if we put these two together in what would seem to be a sensible research design that follows the EE team’s recommendations regarding combinations, it is startling to see how quickly the possibilities mount up. Beginning with the simplest possible treatment of combinations with the enablers, we have 28 possibilities and then when we combine that with the simplest possibility of combinations of mechanisms, we have 93 possibilities. Bringing the various combinations of enablers and mechanisms together into our project would lead to 2604 possibilities!

The point of this exercise is not to simply throw up our hands and say this level of complexity is overwhelming and we cannot do it. Instead, it’s to remind us of the degree of selectivity that will need to be exercised if we begin investigating combinations of the factors and let them interact with each other. For another thought experiment, think about the many possible combinations of enablers, characteristics, mechanisms, and roles as comprising a huge library from which we wish to choose our plan for analysis. It would be a huge library and so, of necessity, we need to have some guidelines as to how we are going to put pieces into our analysis. We will have to exercise “strategic selectivity.” For example, even investigating the 63 possibilities of the impact of the enablers, taken in all combinations of two or three enablers, plus singly, would be a massive undertaking.

These thought experiments lead to a conundrum: does the richness of the EE perspective undermine its usefulness? I see three ways at least out of this situation. First, over time, empirical research might rule out many of the potential combinations and associations as simply not relevant because they don't occur in the real world. Thus, there might be a much smaller set that needs to be investigated in any application. Second, a deeper analysis than what I've conducted or that is possible using only case material might show that, a priori, we could deductively rule out some combinations as infeasible and therefore not worth investigating. Third, it is possible that the value of the framework lies in the way it sensitizes investigators as to which questions are worth asking, rather than offering a framework for empirical analysis. That is, by being so analytically precise about the components to the EE framework, the EE team provides a roadmap for the details of a limited and focused analysis. Rather than trying to apply the entire framework in specific analyses, investigators could use it as a starting point for constructing a feasible research design. The goal is not to explore the entire library of possibilities. Instead, scholars will look at the most at the most common ones, the most interesting, and use previous research to tell us what combinations are worth doing. I believe that this is the sensible path the EE team is pursuing.

*The concept of equilibrium is a 19<sup>th</sup> century idea imported into economics from physics*

The EE group of scholars uses the word "equilibrium" to describe the state of the world prior to the occurrence of an external enabler. When the external enabler occurs, it is said to have disrupted the equilibrium and led to disequilibrium. I strongly suggest abandoning the words "equilibrium" and "disequilibrium." Those terms are a residue of the 19<sup>th</sup> century era when classical economics looked to the physical sciences as a model and adopted their terminology. Unfortunately, one of the terms they borrowed was "equilibrium." Its continued domination in corners of economics reflects the persistence of the bankrupt physics model, which no contemporary life scientist would use.

It makes no sense whatsoever to use an equilibrium model to describe social phenomena in the contemporary world. "Equilibrium" means stasis and a presumption that change means disruption to the stasis. But that description does not fit the contemporary world. A model with stasis and static equilibrium is an extremely poor fit for social phenomena today, and it's the reason complexity science has replaced the equilibrium model (Crawford, Dimov and McKelvey, 2016). I highly recommend a book by Beinhocker (2006), *Origins of Wealth*, in which he thoroughly debunks the equilibrium model and explains why the life-sciences are the better model to follow for social scientists.

My recommendation is simply to use the word "change." The terms "equilibrium" and "disequilibrium" lead you to a way of thinking that is outdated and inappropriate as a model of how humans, organizations, communities, and societies operate.

## **Mechanisms: Some Issues to Consider**

The concept of mechanisms is a useful portal in the EE perspective through which many ideas from evolutionary theory could be imported. Thus, it is worth spending some time on ways in which the concepts and principles of mechanisms could be enhanced so they can be put to better use in the framework. I have four suggestions. First, we can draw some important lessons from the field of analytical sociology with respect to the consequences of mechanism multiplication. Second, the EE group should be careful to avoid anthropomorphic language when talking about mechanisms' and their consequences. Third, I suggest rethinking mechanisms as sources of variation rather than a list of roles and functions as I noted in my explanation of the evolutionary approach. Fourth, thinking of mechanisms as sources of variation also highlights how we might develop a scheme to assess the value of mechanisms.

### *Potential chaos in the concept cafeteria?*

As the EE perspective has developed and more papers are published, I've noticed a tendency toward adding more mechanisms to the original list. Mechanism proliferation is potentially a problem. If you will permit a simple analogy: we might think of the set of all mechanisms as being offered by a "concept cafeteria." Theorists enter the concept cafeteria, pick up a tray, start at the beginning, and work their way down the line, picking the mechanisms they want to use. In the field of sociology, the subfield of analytic sociology has led the way in encouraging theorists and researchers to develop theories and models that specify, via mechanisms, how social processes accomplish things. In their edited book, the *Oxford Handbook of Analytic Sociology*, Hedstrom and Bearman (2017) laid out a program for analytic sociologists, spelling out ways in which they could incorporate the concept of mechanisms into their work.

Unfortunately, some analytic sociologists became a little too enthusiastic about this program. Although each of the proffered mechanisms made sense in the context of a specific explanation, as mechanisms accumulated, theoretical parsimony was lost. At an American Sociological Association annual meeting, critics reviewed a book on social movements that used the "mechanism" approach in an attempt to identify causal mechanisms and processes that recur across a wide range of contentious politics. (McAdam, Tarrow and Tilly, 2001). Critics complained that the authors created dozens of mechanisms with no overall scheme open to make sense of the aggregate set of mechanisms. One critic counted over 80 mechanisms in the book.

With no obvious constraints on the invention of a new mechanism, the list of likely mechanisms is potentially endless. To place bounds on the task of compiling lists of mechanisms, two strategies might be pursued. First, EE authors might decide to simply insert mechanisms into arguments whenever they clarify an explanation. The result would be a steady increase in the total number of identified mechanisms. Second, the EE team could develop a reference list of acceptable mechanisms and then ask authors to draw from that list in developing explanations. Although the issue does not have to be settled now, I think it should be put on the agenda of the EE community for its earliest consideration.



### *Avoiding anthropomorphic language*

In some papers by EE scholars, I saw enablers empowered with anthropomorphic language. By this I mean that the language implied that enablers could act and accomplish things. For example, on the external enablement website, I found this language: “the mechanisms of external enablers explicate how they can facilitate the initiation, ongoing development, and success of new business ventures.” In that same section of the website, I also read that “the emerging ventures benefit from enablers and their mechanisms.” This language implies that somehow external enablers are *using* mechanisms to accomplish something. That is, *the enablers have mechanisms*. I find this language confusing. I think it’s quite easy to slip into anthropomorphic language reflecting the fallacy of misplaced concreteness – treating things as real that are not.

I don’t think that the authors want to fall into the habit of taking shortcuts in their explanations and inadvertently seeming to empower enablers. Such shortcuts imply the ability to take actions that we would normally attribute to humans, either individually or collectively through their organizational roles. I suggest being more careful about word choice. In the evolutionary perspective, actions originate from variations, and variations are generated by humans and organizations, doing things. Evolutionary theorists try to avoid implying that selection forces “act,” although they are not always as careful as they should be.

### *Rethink mechanisms as “sources of variation”*

I would fully embrace an argument that posited mechanisms as sources of variation within and between ventures. Mechanisms are critical to the new venture creation process, I believe, and by endorsing this change in emphasis, the EE community could better position the new venture realization process as lying at the heart of the perspective. One related benefit to classifying mechanisms as sources of variation would be that it might suggest principles by which analysts could organize, sort, and prioritize mechanisms. This would allow EE enthusiasts to compress the growing list of mechanisms into a smaller set. Such compression would reduce the complexity problem I pointed to earlier and make it easier to see points of tangency with other frameworks that focus on innovation and creativity.

The closest parallel I can think of is the community of scholars studying the genesis, perpetuation, and diffusion of organizational routines. Jim March (1971) and his students were at the forefront of such research, and now that March is gone, his students are carrying on the effort (Pentland, Feldman, Becker and Liu, 2012).

### *Why do mechanisms have value?*

When I view mechanisms through an evolutionary lens, I see their value as stemming from two sources: how do they compare to the alternatives that are available and are they better than what the competitors are doing. It’s not what new ventures do absolutely, but instead whether they are doing it better than their competitors. It doesn’t matter how much *effort* new venture founders put into the startup or whether they overcome the *opacity* problem by accurately perceiving their situations. In the last resort,

they are always competing with other organizations for resources. Therefore, the critical issue is how those mechanisms stack up against those being used by other organizations. New venture creation is about competition at a population level, not at a firm level, and so ultimately “mechanisms” must be put into their population context. For an analyst, obtaining such information in the service of building explanations of new venture creation, and survival, and growth, is extremely difficult. Therefore, I would expect some resources might be put into developing methodological tools for comparing mechanisms across organizations.

### **Elevate New Venture Idea to a Central Place in EE**

I would like to see the concept of “new venture idea” returned to the prominent role it played in the original paper (Davidsson, 2015) because I see it as central to the development of the EE perspective in research on entrepreneurship. In the original formulation of the perspective, Davidsson wrote “there can be no new venture creation process before there is an NVI.” However, despite that bold statement, NVI has all but disappeared from the EE literature. It was not mentioned in the review paper on external enablers of entrepreneurship by Kimjeon and Davidsson (2022) nor in the Davidsson, Recker, and von Briel (2021) paper on COVID19 as an enabler of entrepreneurship practice and research. It was mentioned only once in the 2020 review article by Davidsson, Recker, and von Briel (2020b), Although it was featured prominently in the digital ventures paper (von Briel, Davidsson and Recker, 2018), it appeared only four times, on the same page, and labeled as “idea generation” in the paper on China (Chen et al., 2020). It deserves a better fate.

In his initial discussion of the concept, Davidsson emphasized how central the new venture idea was to a founding teams’ initial efforts. The new venture idea proposes imagined futures, which are goals that set constraints on which actions can and will be taken. Such ideas can be shared within a founding team and communicated to others, which can be especially useful when recruiting employees to the venture. The concept of a new venture idea also puts humans front and center in the framework, as it emphasizes beliefs and values. It gives the EE perspective a portal to related fields, such as cognitive neuroscience, communication science, cultural sociology, and behavioral decision-making.

### **Most Promising EE Application: Problems Facing New Populations**

I think the EE perspective could be profitably applied to study the genesis of new populations. As Aldrich and Fiol (1994) noted, entrepreneurs creating new ventures in new industries face two serious problems. First, they must discover or create effective routines and competencies under conditions of uncertainty and ignorance. These conditions are precisely what the EE perspective emphasizes in new venture creation: the problems of opacity and agentic effort. Second, they need to establish ties with environments that do not understand or appreciate them. In the EE perspective, these are the problems of legitimacy and collective effort. But instead of studying these issues at the level of solo new ventures,

the EE perspective could direct attention to those new ventures as the pioneers in the creation of entirely new populations. New populations must establish sociopolitical and moral legitimacy. They must find ways to convince authorities and other key players in their environments that they're legitimate.

Tackling the challenge of studying new venture creation in emerging industries would require that EE scholars make the analytical distinction that I mentioned earlier in the paper between producers, challengers, and creators of new populations. Focusing on new populations would reduce the scope of the perspective, but it would enable scholars to do high-value projects. The EE framework is well suited to studying the genesis of new populations, which often result from disruptions in the social fabric, rather than one more instance of a new venture that reproduces existing forms.

## **Conclusion**

Since Davidsson originally introduced the idea to the world, the EE perspective has emerged as a strong contender for a comprehensive framework with which to understand new venture creation. I've noted many ways in which it has contributed to enhancing our understanding of classic debates within entrepreneurship, such as the one concerning opportunity/creation, as well as the development of a vocabulary and accounting scheme for keeping track of critical developments as ventures move from idea to entity.

The time is right to consider ways in which the perspective might be improved. I have suggested using ideas from evolutionary theory to improve EE's sensitivity to issues of variation, selection, and retention. I also suggested that the proliferation of dimensions within the scheme of enablers, mechanisms, characteristics, and roles could potentially bog down the perspective in overwhelming complexity. Thus, I offered some ideas regarding streamlining the perspective by making mechanisms the core of the perspective and emphasizing new venture creation as outcome to be explained, rather than focusing on the enablers themselves.

The perspective will survive if it leads to greater understanding of new venture creation, rather than on the strength of its theoretical elegance. That's why I support the EE community's emphasis on developing strong research designs with which to evaluate the fruitful ideas coming out of the collaborations now arising within the community. I look forward to seeing how the EE community of scholars borrows and adapts to the astonishing amount of methodological innovation in the social sciences, triggered not only by "big data" but also by the historical and ethnographic revitalization the field is enjoying. I'm looking forward to the results.

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