

# How Can the EE Framework Be Improved? Some Reflections and Clarifications

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We are, of course, delighted and grateful for Howard Aldrich's suggestions on "How Can the EE Framework Be Improved?".<sup>1</sup> That a scholar of his caliber and standing would invest so much time to carefully read the foundational External Enablement papers is a dream come true. And while his reflections and suggestions on the EE perspective were originally expressed verbally and visually at the 2nd EE Workshop (see 'Videos' under the Research tab), we cherish even more that we now have the opportunity to consider his suggestions in refined form in print on our website. And because it is the very nature of science to progress ideas through dialectical conversations (usually in writing), this is exactly what we attempt in this written response. Below, we re-use some of Howard's headings to share some of our own reflections and clarifications as triggered by his suggestions.

## Positive Contributions of the EE View

We appreciate Aldrich's positive overall evaluation of the EE framework and the six particular strengths that are highlighted. We agree with all positive points of course but would particularly emphasize "takes environments seriously" and "a shared language to talk about organizations and environments." Our EE journey started with a frustration with ineffective language for treating core entrepreneurship issues, such as the concept of 'entrepreneurial opportunity' being empirically intractable, philosophically objectionable, and inconsistently applied within and across works (Davidsson, 2015; 2023). Via a first, fruitful application of the EE concept in von Briel, Davidsson & Recker, 2018a, this led us to develop the EE framework as a more workable means to achieving better balance between agency and environmental forces in entrepreneurship research (Davidsson, Recker & von Briel, 2020). Our systematic reviews of past research on entrepreneurship in response to environmental changes (Davidsson, Recker, Chalmers & Carter, 2023; Kimjeon & Davidsson, 2022) subsequently confirmed the need for the structure and terminology provided by the EE framework to an even greater extent than we had realized when first developing it. Even when appearing in top journals, research that examined the role of "the environment" or "changes to the environment" has often been atheoretical, theoretically eclectic, or representing one-off theoretical approaches, leading to a scattered literature and limited knowledge accumulation. Empirically, much entrepreneurship and strategy literature has treated "the environment" either by a) neglecting it, b) providing statistical comparisons or modeling moderations by static environmental contexts, c) treating unspecified environmental changes as an enduring background characteristic of *environmental dynamism* or the like, or d) treating it as a study's empirical *context*, irrespective of whether it was intended as a theoretical boundary condition. By contrast, Howard has long been a strong

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<sup>1</sup> References to pages, tables and charts below refer to this paper by Aldrich if not otherwise stated.

advocate for a balanced view on organizations and their environments as interacting causal forces (Aldrich, 1979, 1999).

### **Assessing the EE Perspective's Relation to Evolutionary Theory**

One of the strengths of Aldrich's reflections is indeed the connection he draws between EE and evolutionary theory. It is a connection that admittedly we had not considered at this point. We agree that Variation – Selection – Retention is a very powerful set of concepts, and that evolutionary theory is one context where the EE framework can be applied for mutual benefit. We also and obviously agree on the need for balanced attention on organizations and their environments. Like Aldrich, one of the main premises of the EE work is to balance structure and agency, not to privilege one over the other. Even though some may perceive EE literature to privilege structure as an explanandum to entrepreneurial processes and outcomes, this is not a correct assessment. EE brings conceptual structure and vocabulary to a conversation that is heavily agency-focused such that the conversation can become more balanced as we move forward.

Regarding Aldrich's metaphorical equation "Organizations \* Environments = Outcomes" it is worth reminding that in research on the EE Framework's core phenomenon, the venture creation journey starts *before* there is an organization. Enablement is a partial precursor to the process that has new venture creation (e.g., a product and an organization) as its outcome. Think about technology enablement: at present, we are witnessing the diffusion of open AI technology into commonplace digital infrastructure. It is this environmental change that is likely enabling the formation and market entry of several new startup organizations that leverage this potential in the (near) future.

Regarding EE's placement in Aldrich's Table 3, we agree that a main function of EEs is 'selection', to 'reward' those ventures who strategically or fortuitously act so that favorable EE mechanisms are actualized with better outcomes than they would have been able to achieve without the EE. Indeed, we believe it would be an important task for research to understand in more details about how EE alter the selection environment as well as how entrepreneurial agents select enabling mechanisms that might flow from the onset of environmental change, especially in contexts where multiple EEs occur simultaneously or in short succession.

However, consistent with Aldrich's placement of mechanisms in the Variation column but in contrast to his assertion "I don't see external enables as first movers or initial stimuli" (p. 6), we regard EEs as at least partial co-creators of variation. EE mechanisms are relational (Davidsson et al., 2020, p. 317) and thus contingent on both agent and enabler. EE mechanisms do not actualize without agential action (although the actualization may be unintended and fortuitous) but neither can the agent create the mechanism out of thin air in the EEs absence. Accordingly, we see anticipation of EE mechanisms as a possible impetus for some but not all venture creation processes, as per the *triggering role* (Davidsson et al., 2020, p. 320).

Finally, we agree that retention "is only implicit" in the EE framework but disagree that "the scheme *must* account for retention." Instead, we suggest that a focus on retention may be an interesting area for future research with the view of extending the EE framework or to link its structure and vocabulary to adjacent ideas and phenomena. Whether or not such work would then be "part of" the EE framework or a way of "bridging" will be related to differing views

on how “totalizing” the EE perspective is (see below). This being said, the EE framework has some capacity to deal with retention through the notion of *temporal scope*. The longer the temporal scope of enablement is, the more likely it is that changes brought on through EE will “stick”, “normalize” or otherwise be retained in entrepreneurial action.

## **Big Picture Issues**

Another strength of Aldrich’s reflections are undoubtedly in this section, where he offers wonderful impetus to theorize further and beyond the present emphasis of the EE framework. At the outset, it is important to stress how enriching such a reflection is for scholarship on the EE framework to grow and extend its impact. As Aldrich notes (p. 2), work on EE is not finished – it will never be – and only through programmatic and systematic introspection, application, and extension will we learn more about its potential to inform entrepreneurship theory and practice, its boundary conditions, limitations, and potential other aspects of entrepreneurial phenomena that were not (yet) envisaged. Aldrich’s ideas are a promising starting point to continue that process.

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

The EE Framework was developed as a conceptual toolbox for *venture level* analysis on *new venture creation*. The focus is on how the environment provides favorable “raw material” for entrepreneurs to act on (or benefit from fortuitously). Thus, The EE framework has brought the focus onto those new ventures that are enabled by an environmental change (whether they actualize that enablement or not), which is usually a minority determined by the spatial, sectoral, sociodemographic and temporal scope of the enabler. Within that enabled minority, venture’s resources and their founders inclinations may lead to considerable variance in the willingness and ability to actualize the enablement. The focus has been on enablement of not-yet-existing ventures, so that variance in the willingness and ability to actualize the enablement span ventures that ultimately culminate in new firms as well as those that never materialize.

Thus, when used as an analytical tool to inform entrepreneurial or entrepreneurship-policy action, we would not exclude ventures on any level of ambition. A search for environmental changes that may be helpful could make also mundane ventures better off (e.g., by adopting resource-saving technology; aligning with favorable new legislation or using marketing appeals aligned with sociocultural sentiments on the rise) than they would be without the enabler. However, acting on the insights from such an analysis would push those venturers from the purest ‘reproducer’ status in the direction of “challenger”. In fact, we would argue that in a retrospective analysis of the total population of new ventures, external enablers should have a larger share in the explanation of the “challenger” and – especially – “creator” categories. The vast majority of new ventures do not significantly leverage external enablers.<sup>2</sup>

With its original focus, we believe the EE framework has shown considerable promise for developing theory of new venture creation that can complement agent-focused theories and lead to effective knowledge accumulation across types of environmental changes and their

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<sup>2</sup> Davidsson (2015, p. 685) writes: “The arrow from External Enabler to New Venture Idea is dashed because the idea may or may not have a clear basis in an External Enabler. Shane[‘s] (2000) eight applications of 3DP technology are examples of the former, while the ideas behind many imitative start-ups in stable industries exemplify the latter.”

influence on new venture creation processes and outcomes. More recent extensions of these ideas by us and others have also begun to indicate usefulness of the EE framework beyond the narrow original delimitation (e.g., by focusing on existing venture growth rather than new venture creation), but it is advisable to keep the origin in mind when addressing phenomena for which the toolbox may be less suited or at least less complete.

*Is the EE perspective a totalizing one?*

Through his writing, it would appear that Aldrich sees broader applicability of the EE perspective than we do! Admittedly, however, the EE Framework is broad in some respects, and this by design. Because we attempted to develop an encompassing and general-level theoretical framework, the EE framework is necessarily broad and abstract. For example, the EE perspective is broader than institutional theories regarding the types of environmental changes it includes in its main concept. It addresses the venture creation process from triggering through shaping to (a broad range of) outcomes. That is broad compared to, for example, a focus on venture idea identification (also known as “opportunity recognition”). And, of course, in isolation the concepts “resource conservation mechanism” and “outcome-enhancement role” are relevant to most organizations and multiple levels of analysis.

At the same time, however, the EE is not without boundaries. For example, Aldrich and others’ work on “Organizations Evolving” (Aldrich, 1999; Aldrich, Ruef & Lippmann, 2020) elaborates on organizational dynamics across multiple level that we regard as far broader than what the EE Framework aspires to do. Similarly, the creation of new ventures is just one of a myriad of application areas for institutional theories, and perhaps not even its main focus. In fact, we regard it a strength of the EE framework that it is designed for analyzing macrolevel enablement of microlevel processes of new venture creation specifically, because this allows developing a detailed vocabulary for that specific purpose (which we believe is or should be the core of entrepreneurship research) without worrying too much about its relevance elsewhere. The EE framework focuses on how instances of environmental *change* put *some* (potential) ventures in a better position in relation to *some* outcomes than they would have been without the change. It is not claimed to cover everything that some ventures may find enabling – only benefits derived from environmental change. In the same vein, the EE framework does not dispute the fact that individual agency is required to create new ventures – but it leaves this well-established aspect out of its main framework to focus on the neglected role of environmental change – to bring both into balance, not to prefer one over the other. Further, we do not aspire for the EE perspective to be the right tool for analyzing drivers of relative performance of diversified firms; the decline and demise of organizations; the dynamics of organizational populations and many, many other important phenomena. If some parts of the EE framework turn out to be useful also for addressing such questions it is a bonus, but we do not think this makes the EE perspective “totalizing.” Instead, the EE framework offers broad and abstract conceptual vocabulary to explain more holistically a very specific (and narrow) phenomenon.

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

Assuming a starting point of constrained entrepreneurial activity in a country, we can imagine regulatory and technological developments that make any kind of mundane, income-replacement venturing so much simpler and/or more viable that it would make a major mark

in the overall business start-up rate. However, for the most part, significant, actualized enablement pertains to small but important minorities that drown in course-grained, quantitative data. This assumption is at the heart of the development of the EE perspective. Accordingly, the EE perspective has explicitly not been designed to address “the scale and scope of normal population dynamics” in the entire population of new ventures. In consequence, we would argue there is not “even a need for applying the EE perspective to the great bulk of these new ventures” (p. 12). Moreover, different EEs would be at play at different points in time, meaning that they replace one another and thus don’t create major deviations from the “minor year-to-year variations” in Aldrich’s Chart 1.

“Is the EE perspective prepared to explain high exit rates?” (p. 13). No, it is not. It was created as an alternative to “objective, pre-existing, agent-independent opportunities” (cf. Davidsson, 2015). The EE perspective explicitly and deliberately focuses on those (minorities) favored by environmental change. All the while, the question which long-established firms exit as a consequence of a new set of externally enabled challenges looms as an interesting yet secondary future research question. Closer to the core of EE research would be to address questions such as “over-triggering” – the at least hypothetical challenge that an EE may entice many more agents to try to start a particular type of new venture than the market can possibly bear. This is one reason why it is important to distinguish between triggering and outcome-enhancement. Davidsson et al. (2022, p. 19) note that this “is a strategically and pedagogically important difference because it reflects mechanisms to which entrepreneurial agents typically overreact vs. those that do not affect their conscious decision-making as much as they deserve.”

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

This part of Aldrich’s commentary makes an important point that we may not have emphasized enough in our work until now: First, the EE Framework is NOT intended to be applied in its entirety in any individual work, and nor is it expected that all relationships between the concepts that are sampled from it are pursued in detail. As an encompassing framework, it offers vocabulary (e.g., mechanisms and characteristics) and structure (e.g., how mechanisms feature in roles) for theorizing. This does not imply that all individual projects need to include all structural elements (e.g., characteristics, mechanisms, and roles) let alone all vocabulary (e.g., all characteristics or all roles). Thus, it is unlikely that all 2604 possibilities ever feature in any one study or explanation.

This being said, there is definitely a risk of excessive breadth and complexity at the expense of depth stemming from the broad coverage provided by the framework and it may in fact be difficult for scholars to identify in any one study exactly those relevant combinations of aspects that pertain to the phenomenon at hand. So far, EE applications do not seem to have gone astray in the jungle of concepts. In fact, it appears to us that underusage of some details of the framework appears more of an issue at present. For example, we note several studies that make cursory reference to the EE framework, as when studies simply label some environmental change as EE but otherwise proceed just like pre-EE research on entrepreneurship in response to environmental change, that is, without addressing variance in EE characteristics, mechanisms, or roles in their explanations.

Second, “equilibrium” in a literal sense is not central to the EE perspective. We have been using the term “disequilibrating” to denote movement from a relatively more stable state of the environment to a more volatile one that we argue is at the heart of substantial and

significant enablement. We completely agree of course that real business environments are constantly changing. While true this is not helpful for EE theorizing – the steady and continuous “up and down” of the environment would in the EE perspective be cast as a fairly stable supply of changes that in fact need to be contrasted with those disequilibrating, non-trivial changes that break the flow (with all its continuous yet somewhat stable variation. But we agree that “change” (contrasted with ‘relative stability’) should be the main focus. And it is – inflections of change outnumber those of (dis)equilibrium by nearly 20:1 in the foundational EE papers.

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

The section of EE mechanisms is probably the part of the EE framework that best illustrates Aldrich’s phrasing “The perspective will survive if it leads to greater understanding of new venture creation, rather than on the strength of its theoretical elegance” (p. 19). It is a useful concept and list, but admittedly a bit of a “kitchen sink”. And we do share the concern about potential “chaos in the concept cafeteria” (p. 16). The tendency to simply add new concepts to a list of similar concepts is a noted and persistent issue in an academic system where researchers are primarily rewarded for making new theoretical contributions – adding a new concept is simply easier to communicate as a new contribution than purging a list or deleting obsolete concepts (Compeau et al., 2022) even though both are important scientific contributions!

Accordingly, we *have* been reluctant to add entirely new mechanisms or inviting others to do so. For example, Kimjeon and Davidsson (pp. 658-9) state: “we advise against adding mechanisms like *incentivizing* of founders (references) and *signaling* to stakeholders (reference) because they are already represented by the triggering role and/or underlying, favorable circumstances.” The additions we have made over time have typically been in the form of concept splitting (e.g., market access vs. demand creation vs. demand expansion) while admitting that “if the finer nuances are not strictly needed (and/or cannot be reliably separated empirically), the best solution may be to avoid the finer distinctions...). Inspired by Aldrich’s suggestions, we would at this point say that the following is a core list of EE mechanisms that would suffice for most applications:<sup>3</sup>

1. *Conservation* - potential for the focal venture to reduce the quantity of time and/or other resources it requires for an activity.
2. *Resource expansion* – potential for the focal venture to benefit from an increase in the quantity of a resource that is available to it.
3. *Generation* – potential for the focal venture to create new or improved artifacts (products/ services; functionality; business models).
4. *Demand expansion* – potential for the focal venture to benefit from increased demand at a given price and functionality.
5. *Enclosing* – potential for the focal venture to capture more of the value it creates.

Apart from collapsing some fine nuances this would mean dropping *Legitimation* and *Risk/Uncertainty reduction*. These are well developed elsewhere and do not relate directly to

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<sup>3</sup> Compared to Davidsson et al. (2022, Table A1) this list makes the following aggregations: *Conservation* = (compression + conservation); *Resource Expansion* = (resource access + resource creation + resource expansion + resource substitution + supply shifting); *Generation* = (combination + generation); *Demand Expansion* = (market access + demand creation + demand expansion). Enclosing is unchanged while Legitimation and Risk/Uncertainty Reduction are dropped.

what a venture can use, sell, or appropriate. Typically, increased legitimation and reduced uncertainty would translate into one or more of the benefits described by the five core EE mechanisms listed above.

Regarding the use of anthropomorphic language, we agree of course that our writing, whilst probed and refined to the best of our abilities at the time, can and should be improved. We wish to be or become better writers! At the same time, we do not find the expressions Aldrich highlights (p. 17) as strongly anthropomorphic and are less concerned about this potential problem than he seems to be. As remarked above, we see EE mechanisms as relational and their effects as co-created by external enabler. In addition, in the era of AI technology (what looms to be an important EE) it may not be possible or even advisable to reserve agency solely for human agents – it is entirely conceivable for autonomous AI technology to bring about both new products and new ventures (cf. Berente et al., 2021; Murray et al., 2021).

Hopefully, the above suggestion of a shortlist of “core EE mechanisms” also caters to Aldrich’s (p. 17) suggestion to rethink mechanisms as sources of variation. We do not think such a framing of EE mechanisms clashes with Davidsson et al.’s (2020, pp. 315; 317) original notion that EE mechanisms “specify the cause-effect relationships” that “explicate how they [i.e., EEs] can facilitate the initiation, ongoing development, and success of new business ventures” or with Davidsson et al.’s (2020, p. 25) explanation that “Mechanisms specify how EEs enable individual ventures compared to if the EE had not existed.” Like Aldrich, we do believe in the idea of taking a processual view of venture creation (Davidsson & Gruenhagen, 2022; von Briel et al., 2018a, 2018b) and examine EE as a source of exogenous change or variation that alters the dynamics of that process. For example, Pentland and others (2022) have already theorized about new technology emergence (an EE) and how this creates “spaces of possible paths”- new possibilities altered through the exogenous variation. This alteration could be in the form of expansion, conservation, enclosing, or some other mechanism. So, we agree with Aldrich that this line of work holds much promise in the context of the routines that are at the heart of venture creation as a process, and the role of EEs that influence the dynamics of this process substantially at least for some.

This explanation also relates to another important observation by Aldrich in the sub-section “*Why do mechanisms have value?*” (p. 17): “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[?]” We happen to address this issue in Davidsson et al. (2022, p. 7), perhaps without providing a fully satisfactory solution:

“Davidsson et al. (2021, p. 218) explain that “a venture benefiting from an enabling mechanism is in some way better off than it would be without the EE.” The “better off” in that statement has two possible referents: comparing to the situation before the EE came into existence and comparing to contemporary competitors. Long after they have become industry standard, rapid prototyping technologies continue to make venture creation processes faster and cheaper than they would have been without such technologies, so in this sense ventures are better off than they would be without the EE. But this criterion is not enough; if it were, almost anything would be an EE compared to some historical state of affairs. When use of an EE mechanism has become industry standard, it is no longer disequilibrating and offers no competitive advantage over incumbents and rival entrants. If so, it is reasonable to say that the EE has reached the end of its temporal scope and is no longer an EE.”

Arguably, the emphasis on EE as environmental *change* should mean that not all its enabling power has already been exhausted, so that actualizing the EEs enabling mechanism should provide some advantage at least over parts of the competition.

We should remind here that – as per the quote of Davidsson et al. (2021) above – the bar for “being externally enabled” is quite low compared to, for example, having “discovered an entrepreneurial opportunity” in Shane and collaborators’ work on the “individual-opportunity nexus” or what others have dubbed “discovery theory”. EEs do not provide complete success recipes, enablement is always partial. Likewise, enablement does not necessarily make a venture reach profitability, instead enablement makes the venture “in some way better off than it would be without the EE.” The EE perspective thus does not promise success in the competitive game of making *better* use of that advantage than other ventures that are likewise enabled. The EE framework itself does not provide all the tools for analyzing, predicting or understanding the latter, but its notions of *opacity* and *agency-intensity* of EE mechanisms adds clues toward doing so beyond those provided by agent-focused theories.

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

On this point, we wholeheartedly agree with Aldrich. The notion of New Venture Idea has been underutilized and underemphasized in the EE foundational papers bar the original (2015) paper and a foray into understanding how digital new venture ideas might be different (von Briel et al. 2018b). How external enablement is “absorbed” into New Venture Ideas through mechanisms and the shaping role should be a core focus for future EE research.

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

Throughout this section and the entire reflection, it is clear that Aldrich has a much stronger interest in the emergence and dynamics of *populations* of new ventures than we, co-creators of the EE framework, do. Our interest has primarily been on the level of the individual (potential) venture rather than a set or class of ventures. This makes it all the more rewarding that he views the problems facing new populations as the most promising EE application area, and we absolutely encourage researchers that share Aldrich’s passion for this topic to pursue this route on that level of analysis. However, we see the emphasis on “problems” as heritage from other conceptualizations rather than as derived from the EE framework. Of course, new populations face many problems and, of course, these problems and how they can be mitigated should be studied. But choosing the EE framework as the vantage point also allows a change of perspective from the environment as fundamentally challenging and constraining – the new ventures swimming against the current – to viewing it as fundamentally enabling – the new ventures surfing the waves that the ocean provides. We think the latter perspective can be embraced more fully also within an evolutionary or institutional main frame.

Further, we note that the most trailblazing of ventures – those that Create in Aldrich’s Table 4 (p. 8) – “create new forms that do not fit into existing populations and therefore potentially generate a new population”. This suggests the usual, institutional perspective of a new population largely mimicking and conforming to the “creator” and thus giving rise to a new population offering similar products through similar processes (possibly with some improvements of either or both over the original “creator”). For example, within such a perspective, Apple with their iPhone gave rise to a small population of smartphone providers (such as Android phones and others). Although this population has become very large and



important to the world economy, we find it more interesting from an EE perspective to view the presence of a smartphone in every person's purse or pocket as a powerful combination of EEs that have yielded innumerable examples of applications, accessories and new functionality across a multitude of old and new industries (or populations). Thus, while we believe that population-level dynamics are indeed important to study, we note that doing so was not the EE framework's original intention. Yet, it may offer new angles and increased precision that possibly allow new ways of "seeing" the interplay between organizations, populations, and environments.

## Conclusion

In his final reflection points, Aldrich highlights the importance of strong research designs and the possibilities current developments provide in that regard. We agree. The EE framework has already been applied in research using different types of (customized) large datasets (e.g., Chen et al., 2020; Lucas et al., 2023; Schade & Schumacker, 2022); qualitative interviews and case-studies (Cestino Castilla et al., 2023; Chalmers et al., 2021; Juma et al., 2023); surveys (Klyver & Nielsen, 2021; Nikiforou et al., 2023); literature review (Kimjeon & Davidsson, 2022; Horne & Fichter, 2022) and experiments (Promsiri et al., 2018; Kim, 2023). Future applications are likely to develop ever better ways of using the respective methods strengths to strengthen the empirical underpinnings of EE research and finding creative ways of empirically addressing important EE questions not yet conceived.

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