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Encompassing Embodiment in Entrepreneurial Learning

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Abstract

The present conceptual article discusses non-cognitive aspects of entrepreneurial learning. Entrepreneurs are known to undergo extreme experience phases during establishing their firms where peak experience, peak performance and flow counteract. As a result, increasing anxiety and stress may hamper their performance. Non-cognitive skills that consider simultaneously mental processes, emotions and spirit in connection with the human neurophysiological system in a holistic, human learning process, could appear more efficient in describing how entrepreneurial learning occurs in stressful situations. In the present discussion somatic learning education is suggested as a possibility to enhance entrepreneurial learning, creativity and performance in stressful situations. As non-cognitive entrepreneurial skills have been overlooked in the extant literature, the present discussion initiates a discussion for further research in the field. The concepts of holistic entrepreneurial learning, embodiment and somatic learning are described while their relevance to stressful business start-upping and entrepreneurial well-being is sought. The article concludes with relevant research questions for further examination.

Keywords: Entrepreneurial education, Embodiment, Somatics, Peak performance, Peak experience, Flow, Well-being, Stress regulation, Innovation, Creativity.

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1. Introduction

Core concept in today's "knowledge economies" era is how the knowledge base dynamically expands, coheres and allocates affecting economic development. In opposition to resources' scarcity, knowledge is abundant but the ability to exploit it can remain limited (Lundvall & Johnson, 1994). Traditionally, in the Western social thought and academic routine a fragmentation of body-mind prevails, rooted to the Cartesian dualism, mostly narrowing learning into cognitive-based orientations, shaping specific notions of consciousness that become dominant (Johnson, 2000). Most studies in entrepreneurial learning adopt the cognitive standpoint. Nevertheless, from an extensive literature review there is a growing level of evidence that rational decision-making processes, emotional and sensory elements seem to be essentially intertwined in explaining the way an entrepreneur thinks and acts (Nicolaou et al., 2019; Porges, 2011). Weaving a more holistic model encompassing body, mind, emotions and spirit aligns more with the continuous spectrum of being and learning (Gieser, 2008; Macintyre Latta & Buck, 2008). Somatic/embodied knowing, for example, overcomes limitations of "received knowledge" (Brockman, 2001), as it is perceived from within the human being, putting senses in the center of perception, while transcending various cultural contexts (Gieser, 2008; Macintyre Latta & Buck, 2008). The field of *somatics* - among other contexts - as a non-cognitive ability to learn, perceive and reflect (Cope & Watts, 2000) offers a possibility to examine how entrepreneurs cope with ordinary entrepreneurial tasks or specific processes that are ambiguous, non-linear, challenging and risky. Key concepts from the field of neurobiology such as "neuroplasticity" or "neuroception" (Krueger & Welpe, 2014; Nicolaou et al., 2019; Porges, 2001) signify the central role of the nervous system to return to its optimal zone of conscious functioning addressing experience beyond repetitive neuromuscular pathways (Johnson, 2000) or affecting homeostasis through tissue re-organization (Rich, 2000). These overlooked perspectives impose a reconsideration of the entrepreneurial learning skills, especially the non-cognitive ones, that may lead to better entrepreneurial performance.

2. Learning in the modern "value habitus"

Modern innovative entrepreneurship is generally known to depend on both knowledge and resources. As mentioned, in opposition to resources' scarcity due to global economic crises, the ability to exploit knowledge may remain limited though knowledge is abundant itself (Lundvall & Johnson, 1994). Concurrently, a "value habitus" for entrepreneurship has been historically shaped rendering specific notions of consciousness dominant. The entrepreneurial "value habitus" signifies, in turn, the quality and importance of entrepreneurial "growth". Habitus is a Bourdieusian sociological notion referring to the norms, values, attitudes, and behaviors of particular social groups (Bourdieu, 2017). Evidently, a fragmentation of body-mind nowadays prevails after the "scientific revolution" rooted to the Cartesian dualism, mostly narrowing learning into cognitive-based orientations.

Likewise, most studies in entrepreneurial learning, i.e. the way that entrepreneurs dynamically acquire and exploit knowledge or think and act (Cope & Watts, 2000), adopt the cognitive standpoint.

Nevertheless, from an extensive literature review there is a growing level of evidence that rational decision-making processes, emotional and sensory elements seem to be essentially intertwined in explaining the way an entrepreneur thinks and acts (Nicolaou et al., 2019; Porges, 2011). Thus, a more holistic framework, encompassing body, mind, emotions and spirit is needed in researching entrepreneurial learning processes. According to Loehr & Schwartz (2001) (also Schindehutte et al., 2006) it is asserted that a possible *integrated model* of high-performance should holistically consider the body, the emotions, the mind and the spirit, while Nicolaou et al. emphasize that "behaviour is also contingent on other physical systems such as the body, other people and the environment" (Nicolaou, Lockett, Ucbasaran, & Rees, 2019).

Additionally, there is a growing level of evidence that the emotions and the body are connected (Porges, 2001, 2011; van der Kolk, 2014; Rich, 2000). Somatic knowing, for example, overcomes limitations of "received knowledge" according to Belenky, Clinchy, Goldberger and Tarule (see Brockman, 2001), as it is perceived from within the human being, putting senses in the center of perception while transcending various cultural contexts. These developments have been poorly researched in the context of entrepreneurial learning.

3. Entrepreneurship and eudaimonic well-being

Entrepreneurship is uniquely stressful (Tahar et al., 2022). Internal or external critical events promote in a rapidly demanding way a better understanding of the factors associated with entrepreneurial burnout (Shepherd et al., 2010). While entrepreneurs often report high emotional demands involving stress/frustration, uncertainty/risk, fear/anxiety, limited leisure time, sleep issues, high workload and loneliness, literature review indicates that "salutogenic" factors can buffer "pathogenic" ones giving new direction in eudaimonic well-being research. In other words, seems as enhancing coping resources serves as an antidote to entrepreneurial burnout leveraging the "undoing hypothesis". This means that higher levels of "psychological capital" (resilience, hope, optimism) outbalance negative emotions improving their "well-being" (Tahar et al., 2022). Seems that autonomy, self-acceptance, purposeful life, positive relationships, environmental mastery and a sense of personal growth are key dimensions to well-being (Ryff, 2018)

On the contrary, entrepreneurial ill-mechanisms are usually related to high degrees of autonomy, meaningfulness and personal identification that entrepreneurs depict which in turn, often leads to overcommitment, blurred work-life boundaries, intense workload, uncertainty, loneliness or insomnia. This resource depletion creates distress that urges a need for detachment. Disconnection and disengagement through certain recovery interventions (e.g. quality sleep, mindfulness, physical exercise) from the above mentioned states could reduce stress's harmful impact on

the body and mind and boost productivity. However, entrepreneurs due to their demanding daily routine and their typical personality characteristics described above often crowd out opportunities for recovery or even underestimate and ignore the need for it. This "Recovery Paradox" leads to a "wear and tear" of inflammatory, metabolic and cardiovascular systems if recovery resources and interventions are being incessantly postponed and ameliorated (Williamson, Gish & Stephan, 2021).

4. Embodiment

The above mentioned recapitulate the marginalized power of our bodies to form and inform self and others (Macintyre Latta & Buck, 2008), although admittedly "there is a weird tendency to avoid ourselves instead of penetrating our core essence of our beingness" (Humpich, 2012). Simultaneously, Brockman (2001) indicates that:

"Though often communicated and inculcated via cultural-linguistic means, bodily (somatic) knowing is not acquired thereby. Rather, it is directly experienced. In short, neither culture nor language are the source of somatic knowledge. Somatic knowledge is received from within the human being; cultural knowledge is received from without the human being. Some of the limitations of cultural-linguistic models of knowing arise because the cultural and linguistic dimensions of knowing have been divorced from the more fundamental, direct, somatic dimensions of knowing" (p.5)

"Embodied knowledge" holds the ontology we "are" bodily, to mention Heidegger rather we do not "have a body". While Dewey draws attention to this disregard for the body suggesting that it is indeed "fear of what life may bring forth", many more thinkers and scholars such as Merleau - Ponty or Levin turn to the body as the focal point of sense making. Embodied teaching/learning develops a vital space for the omnipresent body permeating subject or any "otherness" as a bound entity so as a lostness and foundness of the self signifies the process itself (Macintyre Latta & Buck, 2008). As Dewey pointed out:

"… this interplay reestablishes an on-going-on equilibrium with the surroundings of the live being which is primarily viscerally understood" (Macintyre Latta & Buck, 2008). "Reflexivity is at the heart of flesh, asking us to look at the sense and selves being made on a continual basis. Falling into trust with the body's role in teaching and learning is a reflexive undertaking embracing the contingencies of a becoming self." (p.124)

Within this inquiry, the process of 'becoming' exceeds pre-determined results enabling a forward thrust and a creative flux (Macintyre Latta & Buck, 2008). In turn, this creative flow signifies the "living" leading to gradual harnessing of innovative and heuristic ranges once this internal movement is initiated. A multiplied potentiality closely related to the living's own nature is being enriched leading the live being to an "irreversible crossroad between the "old forces" and the

"forces of change". A strong chiasm of maintenance and change that enhances the opposites without intermingling them or distincting them" (Humpich, 2012).
All in all, this provokes a deeper transcendence in space and time to express our deepest self. It is a provocation for a double learning opportunity: "to learn how to perceive and simultaneously to cultivate our expressing upon what ourself perceived without interference". To achieve this a new quality of inner attention is required for this introspection with the observer being aware upon his own presence shaping a self-referred empathy (Humpich, 2012).

5. Somatic learning

Somatic or Somatics - the origin of the word is from the Greek language - means related to the body (soma) beyond the material aspect. There is a crucial differentiation, though, between somatic learning and embodied learning. First, as Freiler (2007) underlines:

"… closely aligned with somatic learning, embodiment is associated with an evolving awareness of bodily experiences as a source of knowledge construction representing a domain of learning derived from engagement through lived body experiences of physicality, sensing and being in both body and world (Beaudoin, 1999; Brockman, 2001; Clark, 2001;)" (p12)

Second,
"Somatic learning will refer to learning directly experienced through bodily awareness and sensation during body-centered (somatic) approaches and movements such as yoga, while embodiment will refer to a more holistic view of constructing knowledge that engages the body as a site of learning also in possible connection with other domains of knowing (e.g., spiritual, affective, symbolic, cultural, rational)" (p.13).

Somatic approaches initiate an inquiry into human experience through exercises of sensing, paying sustained attention to sound making, breathing and various ranges and depths of body movement, both voluntary and involuntary beyond old formalisms of the "static" body (Conrad, 2007; Johnson, 2004). A series of intrinsic movement explorations accompanied by toning sequences are introduced in order for the tissue to re-organize and elicit new more refined responses building new neural networks. The overall goal is to enhance fluid resonance and non-local interactions heightening the "formative tendency" that urges organisms - in terms of Prigogine- to more complex levels of organization (Conrad, 2007).
All in all, the field of somatics - among other contexts - as a non-cognitive ability to learn, perceive and reflect offers a possibility to examine how entrepreneurs cope with ordinary entrepreneurial tasks or specific processes that are ambiguous, non-linear, challenging and risky.
Noteworthily, the idea that a person's brain chemistry can change or regulate

through bodily experience is pivotal when one considers the field of "somatics", firstly introduced by Hannah (Van Vleet Goelz, 2015). While behavioral psychology studies the body from the outside or as an object, somatic psychology studies the body as a subject and believes in the "intrinsic wisdom" of the body to heal itself, as Serlin points out (Van Vleet Goelz, 2015; Johnson 2004). Thus, somatic learning generally refers to learning directly experienced through bodily awareness and sensation during purposive body-centered movements (Freiler, 2008). Also, somatic learning shifts the dominant narrative as it belongs mainly to "afferent approaches" through which regulation of our nervous system affects cognitive functions (bottom-up processing), while "efferent approaches" (top-down processing) focus primarily on how cognitive structures and functions affect emotions and instinct systems (Heller & LaPierre, 2012).

Gieser (2008) clarifies eloquent the perception mechanism:

"Following Damasio, Milton proposes a model of perception mechanism where incoming sensations from environmental stimuli trigger neural patterns related to the sensed, together with an associated emotion pattern. This so-called neural map then induces minor changes in the bodily state (the emotion). Again, these inner changes can be perceived (in a similar way as environmental stimuli) and trigger a corresponding feeling, that is to say, a somatosensory image of an emotion. As almost all perceptions undergo this process (Damasio, 1999, p. 58), we learn to associate environmental features or situations with emotions by repeated experience (Damasio,1999, p. 57)." (p.305)

Respectively, a progressive evolution has been made in the field of entrepreneurship "from the "semantic level" to the "symbolic level" up to "neurological" level" (Krueger & Welpe, 2014), where neural/physiological processes and activities are being examined in order to explain entrepreneurial action that may often seem automatic (Krueger & Welpe, 2014; Nicolaou et al., 2019). Hence, there is growing consensus in the literature that the central nervous system reacts differentially to risk (Krueger & Welpe, 2014). Key concepts from the field of neurobiology such as "neuroplasticity" or "neuroception" (Porges, 2011) signify the central role of the nervous system to return to its optimal zone of conscious functioning addressing experience beyond repetitive neuromuscular pathways (Johnson, 2000). Similarly, Damasio (Rich, 2000) argues that through bodily practices we alter states in all tissues of an organism- including cells of the nervous system - that affect subsequently occurring representations in particular brain sectors regulating altered states of consciousness, thus affecting homeostasis.

From another similar point of view, *grounded cognition* (Barsalou, 2008) rejects standard theories of cognition advocating that cognition is inseparable from the brain's modal systems for perception (e.g. vision, audition, action (e.g. movement, proprioception) and introspection (e.g. mental states, affect). This theory involves the assumption that simulations, situated actions and occasionally bodily states are

involved in cognition. Many scholars of grounded cognition (Barsalou et al., 2003, Lakoff & Johnson, 1980) focus on roles of the body impacting cognitive states, especially through the skill of simulation "meaning the reenactment of perceptual, motor and introspective states that were acquired during experience with the world, body and mind" (Barsalou, 2008). They basically draw connections between perception, action, body and environment when pursuing a goal.
Through the above-mentioned simulations due to the mirror neurons within our motor system the perceiving subject represents internally not only the action itself but also the goal of the action while actively preparing for analogous potential action in our brain's grasping circuit. The speed and the accuracy of situated action mirrors the "habitus" of our somatosensory system and establish a primate mechanism for *lived empathy* since they titrate imitation and social coordination (Barsalou, 2008, Gieser, 2008). Especially bodily states rather cause social cognition than just being affected by it through communicative interaction (Barsalou, 2008). As Gieser (2008) puts it:

"Imitation must obviously be more than a matter of the mind's taking a perspective and translating it to a body that executes its orders. Imitation must also be more than one body copying the movements of another separate body. As apprentice and teacher are both to be understood as being-in-the-world and, hence, who are related to each other, imitation can be seen as a complex intersubjective process comprising minds, bodies, and (social and natural) environments. Instead of asking for locations of processes (and hence focusing on just the mind or the body), my proposed approach positions learners and teachers as nodes within their respective fields of relationships (Bateson, 1972, 1980; Ingold, 2000)" (p.303)

"However, this attention directed towards the other person is just an intermediary stage in learning situations. In order for learning about the world to take place, attention must be refocused from the person-person-relationship (primary intersubjectivity) towards a person-person-object-relationship (secondary intersubjectivity). So, being aware of the other person's perceptions, I begin to switch my focus to the objects of these perceptions. I expand my being to include the other's being just as blind persons use their canes in order 'to see' … The observer perceives the environment not directly but via the demonstrator while experiencing himself and the other as one phenomenological unity." (p.310)

6. Somatics and entrepreneurship

The point to which somatic education dissects with entrepreneurship is that they both articulate an unfolding integrative process of managing effectively complex "environments" in the underlying pursuit of human fulfillment. Both of them orchestrate in a holistic way local and non-local internal/ external interactions serving as a forward thrust for a more complex level of organization. Both of them ground on an ongoing process consisting an evolving "creation" that are impacted

by the felt experience of the subject. Arguably, though, as Schindehutte et al. (2006) indicate:

"Much has been written regarding the nature of the entrepreneurial process and how it can be successfully exploited (e.g., Low and Macmillan, 1988; Shane and Venkataraman, 2000; Zahra and Dess, 2001), yet relatively little is known regarding how individual entrepreneurs actually experience the process. Few insights are available regarding the sensory and emotional elements that come into play within the entrepreneur as the venture takes form and evolves. Although it could be argued that every entrepreneur has a unique experience, it is worth questioning whether there are commonalities in terms of what entrepreneurs are experiencing, how they experience it, and the implications of common experiences for personal and business outcomes." (p. 1)

"The list of potential characteristics of the experience is limitless, with the uncertainty (Bird, 1989; Stevenson, 1985), ambiguity (Shane et al., 2003), a sense of achievement (McClelland, 1961), varying perceptions of being in control (Morris, 1998; Mueller and Thomas, 2000), stress (Boyd and Gumpert, 1983; Buttner, 1992), a sense of loneliness (Boyd and Gumpert, 1983), and self-actualization (Vesper, 1998)". (p.1)

The field of psychology signifies three key dimensions that deepen our understanding of the more intense periods (extreme experiences) that occur when creating and growing a venture termed as: peak experience, peak performance, and flow. According to Schindehutte et al (2006, p. 352): "Peak performance can be defined as an episode of superior functioning or reaching the upper limits of human potential as manifested in excellence, productivity, or creativity. It is performance that transcends what normally could be expected in a given situation". The authors also note "*Peak performance* may affect and be affected by peak experience. Peak experience is a prototype of feeling. It is defined as an intense and highly valued moment or period that surpasses the usual level of intensity, meaningfulness and richness both perceptually and cognitively …". Furthermore, flow has been described by Csikszentmihalyi. Schindehutte et al (2006, p. 352) state: "*Flow* refers to the psychological state underlying peak performance … It is a state of focused energy, a transcendent state of well-being, involving a spiritual dimension and a euphoric sensation and ecstatic moments (Waitley, 1991), and is characterized by total focus and absorption of transcendent awareness (Jackson and Csikszentmihalyi, 1999). Flow is an autotelic experience, one that is intrinsically rewarding that we choose to do for its own sake (Csikszentmihalyi, 1990)." Considering intense start-up phases like the previous extreme experiences, then entrepreneurial learning may exceed the usual cognitive dimension into the holistic somatic learning.

Interestingly, Beaudoin (1999) conducted research on how integrating proponents of somatic education transfer their learning to the context of everyday life. Integral

transfers in circumstances from different aspects of everyday life were traced whether reproducing the action model itself or adapting it to what was appropriate. In entrepreneurship education the same propensity of integral transference of somatic education components would be very promising to investigate if they really enable phenomena of peak experience, peak performance and flow especially during critical periods of high stress and complexity.

7. Conclusion and research agenda

In conclusion, entrepreneurial tasks are known to be ambiguous, non-linear, challenging and risky endeavors like somatic approaches in learning. In this circumstance, a paradigm shift inquiry could be initiated through somatic movement education giving rise to non-conscious, automatic, inductive, implicit and intuitive processing in learning. This new *modus operandi* could possibly lead to a more humane morality that represents a departure from the traditional emphasis on entrepreneurship as a vehicle for wealth generation, job creation, economic development and innovation, towards a process that fulfills human potentialities, renews the self, while giving a deeper sense of meaning and purpose in life (e.g. EntreComp, Bacigalupo et al., 2016, LifeComp, Sala et al., 2020).

Consequently, there are questions to be researched in the future. Firstly, do entrepreneurs value personal non-cognitive skills as helpful to their effort? Can somatic education - as an affernet approach - enable regulation of our nervous system and entrepreneurs' in particular? Could neuroregulation be a valuable key leading to productivity, "success" and "growth"?

Secondly, when entrepreneurs confront moments of high experience, high performance and flow, how do they react in these circumstances? Can entrepreneurs make their own peak experience, peak performance and flow moments a more frequent event (Schindehutte et al., 2006) through somatic movement education? Is somatic movement education beneficial for them an in which way?

Third, could somatic movement education impact entrepreneurs' stress regulation and regulate well-being during periods of intense pressure? Could it be an antidote to entrepreneurial burnout? Could it possibly be a resourceful mechanism leading to entrepreneurial well-being? Even further, could entrepreneurship be grounded on a more humane morality informing ourselves, others and the environment we live in?

Fourth, could somatic movement education enhance entrepreneurial creativity, innovation or "a-ha" moments as a more frequent event releasing intuition and instinct? Could bottom-up processing approaches bridge an innovative discourse between the conscious and the subconscious human potentiality?

All in all, entrepreneurial learning and action may need to be explored via encompassing somatic approaches as personal (non-cognitive) capacities in order to be more vast, more humane and accordingly more efficient in increasing sense of flow when coping with extreme experience and peak performance entrepreneurs undergo during establishing their ventures. After all, to insist with Dewey and

Bresler "moving minds" demand embodied teaching and learning. If entrepreneurship equals identification, evaluation and exploitation of opportunities (Shane & Venkataraman, 2000) why not encompassing all means of learning along the way respecting heterogeneity?

The present conceptual article discussed non-cognitive aspects of entrepreneurial learning. Such an approach is novel in the field and can be met in peak experience phases of business start-upping (Schindehutte et al., 2006). Future research will focus on somatic learning practices (or interventions) in entrepreneurial learning able to reveal its non-cognitive aspects with regard to research questions emerging from the present discussion.

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