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"Engagement as a generative condition for learning: agency, educational relationship, sense of security and desire"

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Abstract: Engagement is increasingly recognized as a multidimensional construct—cognitive, emotional-affective and relational—central to social and emotional learning (SEL), yet its theoretical integration with agency, educational relationship and desire seems to remain almost underexplored. This paper addresses the question of how these elements converge within a unified pedagogical model that could be capable of sustaining authentic learning. Adopting a multidisciplinary theoretical framework, the study integrates Bandura's social-cognitive theory of agency, Goleman's emotional-social intelligence, Siegel's interpersonal neurobiology, and Panksepp's affective neuroscience, with particular attention to the *Seeking System* intended as the neuroaffective basis of exploration. Through conceptual analysis and theoretical synthesis, the paper examines how relational attunement, co-regulation, self-efficacy and epistemic curiosity interact to generate genuine engagement. The analysis's results indicate that desire could function as a bridging construct linking motivation, cognition, emotion and relationality: it represents the affective dimension of agency, the motivational core of emotional intelligence, the experiential outcome of attuned relationships, and the pedagogical expression of the *Seeking System*. It suggests that security and relational well-being precede exploration, which in turn sustains motivation, desire, self-efficacy and agency in a reinforcing cycle. The paper concludes that engagement could be understood not as the mere outcome of effective teaching, but as a generative process wherein agency, emotion, relationship and desire mutually organize one another, offering a theoretical foundation for "engagement education" oriented toward fostering authentic desire for knowledge.

Keywords: desire; agency; engaging education;

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1. Introduction

Engagement is increasingly recognised as a central concern in contemporary education, yet, it probably still remains a notoriously elusive construct. Far from being reducible to attendance, compliance, or surface-level participation, engagement is understood as a multidimensional phenomenon involving cognitive, emotional, and relational processes that jointly determine whether learning becomes authentic and meaningful (Bandura, 2023). This issue is not confined to a single discipline:

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educators, developmental psychologists, and neuroscientists alike have converged on the observation that how students *feel* within a learning environment shapes what and how they learn (M.H.Immordino-Yang, 2017); understanding engagement, therefore, has broad significance not only for pedagogical practice but also for how we conceive motivation, well-being, and more generally, human development.

Recent advances in affective neuroscience have reinforced this shift: rather than treating emotional and relational factors as secondary to cognitive instruction, researchers -from different fields such as pedagogy, developmental psychology, neuroscience exc…- increasingly argue that security, belonging and relational attunement are structural preconditions for learning, since they activate the Fundamental Emotional Systems that underlie motivation, self-regulation, and desire (Immordino-Yang, 2017; Lucangeli, 2019; Panksepp & Biven, 2014). This reframing challenges earlier more transmissive models of teaching and calls for an integrated theoretical account of how agency, emotion, relationality and motivation interact. Following this premise this paper aims to explore the role of *engagement* as a multidimensional construct – encompassing cognitive, emotional-affective and relational dimensions as said – within social and emotional learning (SEL) processes (Goleman, 2019); in particular, it seeks to answer the following research question: *how do engagement, educational relationship, agency and desire come together in an integrated pedagogical model capable of fostering authentic and meaningful learning?*

The underlying assumption rests on the conviction that it is the quality of educational relationships, the classroom atmosphere, the sense of belonging and security, and active participation that constitute the primary conditions for learning; these elements would appear to precede even the very foundational premises of *the active learning* paradigm (Dewey, 2018); this is because, as mentioned, in light of recent discoveries in the field of affective neuroscience, it seems that these affective-relational characteristics constitute the structural conditions capable of activating the Fundamental Emotional Systems, which are essential to authentic learning. Several influential but historically separate theoretical traditions converge on this theme and so, the general theoretical framework presented here aims at integrating and bringing together various theories, adopting a multidisciplinary research perspective: 1) Bandura's social-cognitive theory, which places the construct of *agency* at the heart of its analysis; according to this, the learner is not a passive recipient but an intentional agent who acquires knowledge through observation, modelling and vicarious reinforcement, and whose self-efficacy is built within meaningful relational contexts; 2) Goleman's perspective on emotional and social intelligence, which highlights how self-awareness, self-regulation and empathy are learnable skills that mediate the relationship between the relational climate, performance and achievement; for, as Goleman observes, we have two minds – *one that thinks and one that feels* – and so ef-

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fective teaching is that which is capable of engaging both; 3) Siegel's interpersonal neurobiology (Siegel, 2011), which effectively grounds the previous theoretical contributions at a neurobiological level whilst simultaneously integrating them into a harmonious whole through the concept of co-regulation: the mind develops – from the very earliest interactions with the caregiver – as a relational process, and educational attunement, the synchronization between teacher and pupil, which by functional analogy mirrors that between parent and child, can represent the neurobiological substrate and matrix of security, an essential element for exploration and learning to take place; 4) It is precisely by linking this latter concept of "exploration" tied to learning that the neuroscience pioneer Jaak Panksepp elaborates the *Seeking System* (Panksepp, Biven, 2014, p.103) an ancestral basic emotional system that underpins all others, the driving force behind every cognitive movement that sparks exploration and leads to knowledge and understanding. Within this framework lies a further reflection on desire, understood as the driving principle behind the teacher's instructional design when aiming to foster *engagement education*: the effective lesson we expect does not merely convey or transmit content but ignites a desire for knowledge, whilst simultaneously integrating the motivational dimension of Bandura's agency, Goleman's emotional intelligence and Siegel's *Mindsight* with its relational-integrative dimension into a single pedagogical framework.
Desire thus acts as a bridging construct (Savino, 2026): it is the subjective form of agency, the emotional fuel of engagement and the outcome of a harmonious educational relationship, serving as a pedagogical catalyst for all the elements we have discussed.

2. Conceptual analysis and theoretical synthesis.

2.1 Agency and Engagement in Bandura's perspective

The theoretical architecture underpinning engagement education draws on four distinct but convergent frameworks, each occupying a different position along a continuum of theoretical consolidation. Three of these - Bandura's social-cognitive theory, Goleman's model of emotional intelligence, and Siegel's interpersonal neurobiology - constitute the classic, well-established paradigms within psychology and educational science whereas the remaining two – Panksepp's findings and the analysis on the construct of Desire- represent more recent contributions between affective neuroscience, transcendental philosphy, theory of attachment and pedagogy (Savino, 2026).

Albert Bandura's social-cognitive theory forms the first pillar of the model. Learning is not conceived as the passive reception of stimuli, but as a process in which the

individual exercises *human agency*, intentionally influencing their own behaviour and the context. Bandura defines this capacity as *'the essence of humanness'* and emphasises that *'people are not mere passive observer of their behaviuor and of the casual structure. They are self-organizing, proactive, self-reflecting, and self-regulationg agents who contribute causally to their life circumstances and personal growth." (*Bandura, 2023, p. 6); so, people are the producers as well as products of social systems and the individual is therefore both a product of and a producer of the social contexts in which they live and learn. From this perspective, engagement is not merely a matter of presence or behavioural adherence to school activities, but involves intentionality, desire, the attribution of meaning, the ability to anticipate outcomes, self-regulation and active participation. In fact, Bandura states: "*In Social Cognitive Theory, the agentic aspects of psychosocial functioning are manifested through three core psychological properties: forethought, self-reactiveness and self-reflection*." (ibi). Central to this is the concept of *self-efficacy* , that is, the belief that one possesses the necessary abilities to organise and carry out actions aimed at achieving specific outcomes: it is self-efficacy that influences motivation, perseverance and the willingness to tackle difficulties (ibidem, p. 53). Since personal, behavioural and environmental factors influence one another, the educational context becomes an integral part of the process through which the learner constructs a sense of her/his own competence, in fact in the perception of self-efficacy intervene a diverse range of factors; Bandura states "…*three classes of influences actions, cognitive, affective and other personal factors and environmental events are mutually interacting determinants*". (ibidem, p. 53). The teacher therefore assumes a role that goes beyond the mere transmission of content: they serve as a model of agency, self-regulation and epistemic curiosity, creating the conditions that enable the student to take the initiative, formulate hypotheses, make choices, experiment with error and correct themselves.

As said, Bandura conceptualises the learner not as a passive recipient of instruction but as an intentional agent exercising human agency: this reciprocal formulation is theoretically significant because it positions the learner and the educational context in a bidirectional relationship, rather than a unidirectional transmission model; self-efficacy, in this sense, is not an individual trait developed in isolation but a socially and relationally constructed belief, built through observation, modelling, and vicarious reinforcement. Indeed the author says: "*Self-efficacy beliefs are an aspect of thinking: specifically they are a class of judgments. When people contemplate challenging activities they commonly judge the effectiveness with which they can take actions to meet the challenges and attain a given level of success. Perception of self-efficacy are defined as people's judgements of their capabilities to execute courses of action that are required to attain designated types of performances*" (ibi).

The link with Desire -which will be highlighted in the next paragraph- (Savino, 2026), allows us to explore this perspective in greater depth: if agency represents, , the capacity to intentionally direct action, Desire constitutes, on the one hand, its affective direction and, on the other, its primary driving force, since one acts not merely because one is capable of doing so, but because something appears worthy

of pursuit as a harbinger of satisfaction (Panksepp, 2020). *Engagement education,* understood in this way, becomes a pedagogy capable of transforming the possibility of acting or moving within a context – in the classroom and subsequently in other fields – into a desire to discover, learn and know.

2.1.1. *Emotional intelligence, relationships and learning: Goleman, Lucangeli, Siegel*

Goleman (2019) complements this agentic framework by asserting that cognition and emotion operate as an integrated system rather than as separate faculties, famously observing that "*…we have two minds, one that thinks and one that feel."* (p. 28) - a claim that explicitly revisits the Cartesian mind-body separation earlier challenged by Damasio, the famous "*Cartesio's mistake*"(Immordino-Yang, 2017). Goleman's framework extends beyond this foundational distinction to argue that self-awareness, self-regulation, motivation, and empathy are *learnable* competencies mediating the relationship between relational climate and academic performance. The author states: "*These skills can be taught to children, thereby putting them in the best position to make the most of whatever intellectual talents their genetics have endowed them with*." (Goleman, 2019, p. 13). The discourse on emotional intelligence is linked, on the one hand, to learning -as we will see- and, on the other hand, to morality; in fact, "*those who are at the mercy of their impulses—those who lack self-control—suffer from a moral deficiency: the ability to control impulses is the foundation of willpower and character*." (ibid.). For the same reason, the root of altruism lies in empathy—one of the five components of emotional intelligence—which is the ability to recognize and understand the emotions of others; thus, without an awareness of others' needs, there can be no care for them either. The value of emotions, therefore, is social: "*As Aristotle understood, the problem does not lie in the state of mind itself but in the appropriateness of the emotion and its expression*," and Goleman concludes admirably, "*the point, then, is this: how can we bring intelligence to our emotions and, consequently, how can we bring civility to our streets and consideration for others into our social lives*?" (ibid., p. 16). Emotions are, therefore, fundamental to the entire psychological, intellectual, moral, and social life of human beings; they must be understood in terms of their intelligence and wisdom, and a pedagogy must be developed to transform them into an indispensable intellectual, moral, and social competency. They are also a lever for learning: "*when learning and knowledge are devoid of emotions*, *when people learn mechanically in the absence of intrinsic motivation and without a sense of interest or relevance to the real world, it is very likely that they will not be able to effectively apply what they have learned in concrete experience*" (Immordino-Yang, 2017, pp. 25–26)

This connects directly to Lucangeli's (2019) clinical observation that environments characterised by threats, unpredictability and humiliation transmitted by phrases such as "*You're no good!"* or *"You can't do it*!" or even "*That's not how you do it; you're doing it wrong…*" (ibi, p.58) can produce what she defines as "*learned helplessness*" (p. 21)- a condition in which the learner's cognitive and emotional readiness for learning is actively undermined: in fact, negative school experiences trigger an

emotional short circuit that can induce a set of thoughts and emotions -known as "learned helplessness"- capable of hindering learning; "*This means that when a student makes a mistake and attributes their failure to their own inability, and perceives the situation as beyond their control, they feel they can do nothing to change it and therefore freeze up: they are no longer able to learn*" (ibid., p. 21).

Here we see the full power of emotions as they intertwine with cognitive systems, since it is precisely a positive emotion that can prevent all of this: "*How can we prevent all of this*?" Lucangeli adds, "*With a positive emotion.*" "*All it takes is a spark of emotion amid profound fatigue*"-a smile, a captivating story, etc.-"*and the amygdala, a small subcortical nucleus that is part of the limbic system, triggers an emotional mechanism that reboots the system*" (ibid.). Let's take a closer look at this system, briefly delving into the studies on warm cognition (ibid., p. 15): this field of research concerns the relationship between cognition and emotions; recent studies (McCaugh, 2015) have shown that it is no longer possible to interpret the functions of the right and left hemispheres as separate or as if they encoded cognitive and emotional information differently: "*neuroimaging research (…) is able to show us the symphony of our extraordinary circuits: synchronous flows of distinct qualities -thoughts, emotions, feelings…- in a continuous flow from one into the other*" (Lucangeli, 2019, p. 15)

Throughout the entire brain circuit, therefore, functions are activated in harmony and synchrony, and every activity corresponds to an emotional trajectory: echoing D. Goleman's iconic expression, "*our brain, while thinking, also feels*" (ibid.).

Emotions, then, are etched into our memory and accompany every learning-related activity: "*A heavy learning load often leads to moments of fatigue; however, a mere spark of emotion -whether from a classmate's smile or encouragement from significant others - is enough to reignite the system.*" (ibid., p. 16)

In this regard, Immordino-Yang, highlighting research related to studies on "warm cognition," states: "(…) *the connections between decision-making processes, social functioning, and moral reasoning hold the promise of a breakthrough in understanding the role of emotions in decision-making, the relationship between learning and emotions, the way culture shapes learning, and, ultimately, the development of morality and human ethics*" (Immordino-Yang, 2017, p. 26); such is the power of emotions in relation to learning, feeling, and the social functioning of every individual.

A final point of analysis allows us to grasp the intimate link between emotions, learning, and engagement: our evolution, in fact, deemed it advantageous for the physiological reactions produced by our bodies when we experience a positive emotion to be particularly intense so much so that they are immediately perceived by every individual; this outcome is precisely what triggers the so-called "seeking mechanism": "*This is how the seeking mechanism is triggered: I experience intense satisfaction, so I seek more of it. In contrast, the neural signals associated with painful emotions, such as fear or anxiety, produce reactions that linger longer in the neural circuit, because we can constantly remind ourselves of something that is best avoided -since it harms us- and these become a memory of*

alertness" (Lucangeli, 2019, p. 16). The memory of fear even spans generations; our system is, in fact, programmed to store all fearful and distressing events -and, more generally, all stimuli that may be dangerous to us and our children- so that we can defend ourselves against them: human beings- like the laboratory mice on which the experiments yielding this evidence were conducted- pass on these "epigenetic memories" to their descendants: "*perhaps the most striking studies in this field concern the survivors of Auschwitz and their children and grandchildren*" (ibid., p. 17).

Why do these reflections intersect with learning and engagement education? Because the role of emotions is not only essential -as we have seen- during the learning process, but emotions themselves seem to be the very "leverage" of what we call here "engagement": when we experience an emotion, in fact, the stimulus is processed first and foremost by the subcortical centers of the brain -the amygdala- triggering an initial neuroendocrine reaction intended to put the entire organism on alert; at the same time, in our memories -especially if the emotion is directly linked to a cognitive process- a sort of imprint is created, so that it happens that at school, while "*I'm learning a concept," we simultaneously experience fear and a sense of inadequacy: every time I revisit that memory, I recall both feelings. My emotions have inscribed the following message in my memory: "This situation makes you feel bad; avoid it*!" (ibid., p. 19): this seems to be the opposite of engagement education.

It is probably not difficult to understand how the adult figure -the teacher, in this case- can acknowledge, address, and nurture this type of process that every student goes through: the teacher and thus the relationship, understood as the cornerstone of engagement education can now serve as an ally, a guide, and a source of support for the emotions experienced during learning. Negative school experiences can lead to learned helplessness -as mentioned earlier- because they create an emotional cycle that induces a block in learning and a setback in one's sense of self-efficacy, referring once again to Bandura. Thus, "*the fuel for the mind which strives and expends energy is, therefore, positive emotions*" (ibid., p. 21), conveyed and accompanied by healthy, mindful adult relationships capable of offering support and reliable guidance.

Read together, authors such as Bandura, Lucangeli, Goleman and Siegel, suggest that emotional competence is not merely an individual skill but a *relational condition* co-produced by the classroom climate, reinforcing Bandura's claim that the learner is simultaneously a product and producer of their social environment. Siegel (2011) extends this integration to the neurobiological level, proposing that the mind itself emerges "*at the interface between human relationships and the unfolding structure and function of the brain*" (p. 2). Crucially, Siegel does not treat relationships as merely facilitative of development but as *constitutive* of it: self-regulation, he argues, "*appears to depend upon neural integration*" (ibi), a process achieved through sufficiently attuned co-regulatory exchanges between caregiver and child - and, by functional analogy, between teacher and student.

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The theoretical foundations of Daniel Siegel's "Mindsight" construct refer to the very term coined by the author: the word *Mindsight* specifically refers to the human capacity to perceive one's own mind and the minds of others: "*It is a kind of focused attention that allows us to observe the inner workings of our own mind. It helps us become aware of our mental processes without being swept away by them; it allows us to disengage from the autopilot of habitual behaviors and responses; and it leads us beyond the reactive emotional circuits into whose trap we all tend to fall*" (ibid., pp. 1–2). It is a genuine skill that we consider fundamental in interpersonal relationships and especially when it comes to learning in school: it is the ability that allows us to "name and tame" the emotions we are experiencing, rather than being overwhelmed by them, and its development can actually change the brain's structure; in fact, the author observes, "*when we develop the skill of mindsight, the physical structure of our brain changes*" (ibid., p. 4). Siegel's model is based on the "*Triangle of Well-Being*" (ibid., p. 17), which illustrates how the interaction between our mind, our brain, and our relationships contributes to an individual's overall health, since they are "*inseparable aspects of life*" (ibid., p. 19). A central construct in this approach is the "*Window of Tolerance*," described as an imaginary space within which our neurophysiological arousal level fluctuates over time, allowing us to function optimally. Furthermore, at the practical level, Siegel proposes the *Healthy Mind Platter*, which identifies seven daily mental activities essential for optimal mental health (www.*drdansiegel.com)*.

Let us imagine, then, the teacher capable of mindsight: "*When adults attune to a child, when they reflect back to the child an accurate image of his or her inner world, the child becomes able to perceive his or her own mind with clarity. This is the foundation of Mindsight.*" (ibid., p. 7)

This reflection crosses Goleman's emotional-relational competencies in a neurobiological substrate, while simultaneously extending Bandura's notion of socially constructed self-efficacy into the domain of neural development itself: agency and self-efficacy, in other words, are not purely cognitive-behavioural constructs but are neurobiologically scaffolded by what we have called "relational attunement". Interventions in education based on attunement are essential and can create the solid foundation that allows everyone to learn with joy and, ultimately, to develop a sense of security, self-efficacy, and a love of learning. The adult, the teacher, can thus become a "catalyst" (Lucangeli, 2019, p. 41): "*Whether I am a mother, a teacher, a friend, or a professional in the fields of developmental science or educational science, I am capable of catalyzing -or not!- human functions; that is, I can help the child exercise these functions in the best possible way (the brain responds according to how we train it; therefore, it performs best if we train it well), and I can do so by instilling in the child the confidence that they are being helped and guided, not the fear of being judged*" (ibid., p. 41)

Now let's ask ourselves a question, in light of what has been said so far: what determines the "desire to study," and what might be the spark of engagement? How can we nurture that spark?

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2.1.2. Panksepp and the *Seeking* system: motivation and exploration

To answer this question two further constructs require our attention, as they constitute a possible theoretical innovation rather than a direct application of pre-existing models. The first is Panksepp's *Seeking System* (Panksepp & Biven, 2020) mentioned earlier in Lucangeli's reflections, a neuroaffective construct that, although established within affective neuroscience, remains relatively novel in its pedagogical application.

Jaak Panksepp's perspective allows us to explore the neuroaffective basis of engagement; indeed, within the field of affective neuroscience, Panksepp identifies several Fundamental Emotional Systems, including the *Seeking*, or *Search*, or *Desire system* (ibi, p. 92). As the ancestral progenitor of all other systems, this generates and sustains exploration, the search for resources and an orientation towards future possibilities: in contrast to the earlier findings of behaviourists, Panksepp discovered that the MFB-LH brain circuit does not correspond to the simple pleasure produced by achieving a goal – that is, the gratification of reward – but represents the primary motivational energy that drives the organism towards something (ibidem). He significantly defines it *as 'a goad without a goal'*: a drive that precedes and underpins the definition of any specific goal (ibi, p. 98). Applied to education, this perspective allows us to distinguish between participation driven by external control and engagement based on curiosity and inquiry stemming from an internal drive; and it is this lever that could be harnessed pedagogically, as it manifests itself and is grounded in something that exists by nature: learning becomes genuinely spontaneous on one hand and engaging on the other when the learner is oriented towards something they do not yet possess and wish to understand. Epistemic curiosity can therefore be interpreted as a pedagogically significant manifestation of the natural exploratory disposition: it follows that it is not enough to motivate students through incentives or so-called engaging activities; it is necessary to create environments in which to activate and trigger the Seeking system, thereby encouraging exploration so that it can be experienced as safe, meaningful and rewarding. Lucangeli states on this regard: "*come si stimola l'interesse? Proponendo una modalità di apprendimento per scoperta o chiedendo di trovare risposta a dlelle domande, lanciando, in sostanza, una sfida interessante*" (Lucangeli, 2019, p. 59).

The Seeking system – and educators' understanding of it – may constitute a possible neuroaffective foundation for learning on one hand, and for the desire to learn and relationships on the other: that is to say, Bandura helps us understand how the drive to act is organised through agency and self-efficacy; Goleman highlights the need to recognise and regulate emotional energy; Siegel highlights the role of relationships and co-regulation; Panksepp identifies a neural motivational basis for exploration.

Desire, then, could represent the pedagogical level at which this energy is channelled towards knowledge through the educational relationship -one that is strongly carachterised by affective elements- transforming the natural drive to explore into an affective cognitive drive, directed towards the things of the World, towards the Other and towards the Self.

2.1.3. *Desire as a "bridging construct" in engagement education*

Desire, as mentioned, constitutes the focal point of the entire model, as it enables the linking of motivation, cognition, emotion and relationship. Following the latest researches (Savino, 2026), it could be understood not merely as an unconscious phenomenon, as a simple impulse, but also as a transcendental faculty capable of generating and sustaining knowledge, creativity and planning: in the *Introduction* to the Critique of Judgment of 1790, Kant writes:

"*All the faculties or capacities of the soul may be traced back to these three, which in their turn can no longer be derived from a common foundation: the faculty of knowing, the feeling of pleasure and displeasure, and the faculty of desire"* (Kant, 1997). That means a reference, then, to the faculty of desiring as belonging to the gnoseological order, as outlined through a dialectic, which seems to be explicit in the Critique of Judgment, although Kant does not speak directly of "desire". This links to another key passage of the philosopher, precisely in a footnote to the third paragraph of his Introduction, referring to the example of the mathematician "*who leaves the empirical data of his problem undetermined and only reduces their relation, in the pure synthesis of them, to the concept of pure arithmetic, thus generalizing the solution of the problem*", (ibi, p. 25) thus attempting a transcendental definition of desire, Kant says that the intellectual act of productive imagination linked to desire is *"the faculty of being through one's own representations, the cause of the reality of the objects of such representations."* (ibi)

Desiring is that "faculty of being" capable of producing representations of objects whose reality is given by its own representational activity, that is: the reality of the contents of the representation does not seem real but constructed and staged by the representation itself.

The concept of Representation is, therefore, central to the analysis of desire and this is involved in the motivation by virtue of emotion: "*The strength of desire would lie precisely in its capacity – passive and active at the same time – of affection and apprehension, that is, in its "dynamic of turning from the passivity of affection to the activity of apprehension" (Dibitonto, 2015,p.126) and here lies the focal point of our interpretation: in the middle of this passage from*

passivity to the activity of Desire, when the Imagination intervenes, it also intervenes "carried by it" on the one hand, critical thinking, choice and discernment, on the other hand, emotion (Savino, 2026, p.58). It can be concluded, following the transcendental philosophy, that the faculty of desire, by virtue of representations and emotions, elicits and builds what we call motivation and interest, for knowledge and other human activities.

Motivate does not only mean producing a momentary interest in a task but also generating a drive towards that which one does not yet possess and which, precisely for this reason, can become the object of search; here, then, desire is understood as a deeply relational dimension and can be seen as a *"middle faculty"* or a "*linking faculty*"between cognition and emotion (ibi, p. 14); this is where its pedagogical analogy and heuristic value lie in relation to the Seeking system.

The educational relationship can therefore be the setting in which desire can be recognised, supported and guided; here, the teacher takes on a generative role, as they do not merely convey content, but create situations in which knowledge can appear as something worth striving towards – to find satisfaction, fulfilment and a sense of personal growth. Teaching thus becomes an education in the ability to attribute value, formulate questions, imagine possibilities and intentionally direct one's own self and one's own actions.

The construct of 'Desire', a new concept in pedagogy, could therefore be adopted as a bridging construct between the four reference theories, effectively creating both the starting point and the endpoint of a possible theoretical model of *engagement education*: in Bandura, it would represent the affective and teleological dimension of agency; in Goleman, the motivational energy to be recognised and regulated; in Siegel, the experience that takes shape through attuned relationships; in Panksepp's work, the pedagogical expression of an exploratory disposition that finds a neuroaffective foundation in the 'Seeking' system. Engagement, in this theoretical perspective, is therefore not simply the outcome of a good lesson, but the very process through which agency, emotion, relationship, exploration and desire mutually organise one another.

3. Discussion

The theoretical synthesis advanced in this paper - in which Desire functions as a bridging construct unifying agency, emotional-relational competence, relational neurobiology, and neuroaffective exploration- can be interpreted as both a confirmation and an extension of the four frameworks from which it derives.

Consistent with the working hypothesis that relational and affective conditions *precede* the operational premises of active learning rather than merely accompanying them, the model corroborates Bandura's contention that self-efficacy is not an

isolated cognitive trait but a socially constructed belief, continuously co-produced within relational contexts. However, the present model extends Bandura's formulation by making explicit what remains largely implicit in social-cognitive theory: namely, *why* an agent chooses to direct action toward one possibility rather than another. By introducing Desire which has been argued to be "*the affective and teleological dimension of agency*" (Savino, 2026), this path of studies proposes that self-efficacy alone is explanatorily insufficient: it requires an affective orientation, a sense that "*something appears worthy of pursuit as a harbinger of satisfaction*" (Panksepp, Biven, 2020) in order to translate capability into sustained engagement. This reading is broadly consistent with Immordino-Yang's (2016) argument that emotion is not peripheral to cognition but constitutes its very organising principle, lending further support to the plausibility of situating desire at the motivational core of agentic action.

Similarly, the findings resonate with Goleman's claim that cognitive and emotional processes are functionally inseparable. Where Goleman's model identifies emotional competencies as mediators between relational climate and achievement, the present framework repositions emotion and specifically desire, as a *generative* rather than merely mediating force. This shift is consistent with Lucangeli's clinical findings on "learned helplessness", which demonstrates that environments characterised by threat or unpredictability do not simply reduce performance but foreclose the affective conditions necessary for desire, and therefore for authentic engagement, to arise at all. Read together, these findings suggest that emotional intelligence frameworks may benefit from explicitly incorporating a motivational-affective construct such as Desire, rather than treating self-awareness and self-regulation as sufficient in themselves.

The model's reliance on Siegel's interpersonal neurobiology is similarly both affirmed and extended. Siegel's assertion that the mind develops at the interface between human relationships and the brain, provides the neurobiological grounding without which the present model's claims about relational security would remain speculative. The working hypothesis that security is a *precondition* for exploration - rather than a parallel or subsequent process - is directly supported by Siegel's account of co-regulation and attunement as the developmental precursor of self-regulation. What the present synthesis adds, however, is a specification of what security makes possible: namely, the behavioural expression of the Seeking system described by Panksepp and Biven . This could represent a meaningful point of theoretical convergence between affective neuroscience and interpersonal neurobiology that, to date, has rarely been made explicit within pedagogical literature.

Panksepp and Biven's characterisation of the Seeking system as "a goad without a goal" ddirectly challenges behaviourist assumptions in which engagement is treated as a function of external reinforcement. The present discussion interprets this finding as having substantial implications beyond the specific theoretical model proposed here: if exploratory drive is neurobiologically prior to, and independent of, any specific incentive structure, then pedagogical strategies grounded primarily in extrinsic reward may be addressing the wrong variable altogether.

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Situated in the broadest possible context, this theoretical synthesis suggests that engagement education cannot be reduced to instructional technique, curriculum design, or motivational strategy considered independently of the relational quality of the classroom environment.

Several pedagogical implications might follow, for teacher education firstly: if Desire functions as the affective fuel of agency, emotional regulation, and exploration alike, teacher training programmes might usefully shift emphasis from content delivery skills toward the cultivation of relational attunement and co-regulation competencies (Siegel, 2011; Immordino-Yang, 2017; Lucangeli, 2019; Savino, 2026).

For curriculum design, the model implies that social-emotional learning (SEL) should not be treated as a supplementary module appended to subject-based instruction, but as a structural precondition for its effectiveness.

And for educational neuroscience, by linking Panksepp's Seeking system explicitly to classroom practice, the model could offer a conceptual bridge between affective neuroscience and pedagogy that may stimulate further interdisciplinary dialogue, consistent with calls made by Immordino-Yang (2017) and Rivoltella (2020) for closer integration between neuroscientific findings and educational theory.

4. Conclusions

The four integrated perspectives discussed thus collectively outline a possible theoretical model of *engagement education* based on the interaction between agency, emotion, relationship, exploration and Desire: whilst Bandura offers us the framework of intentional action and self-efficacy, Goleman that of emotional and relational competence; Siegel provides the framework for co-regulation and the integration of mind, brain and relationships; and Panksepp offers the concept of neuroaffective energy that underpins exploration and inquiry. Finally, Desire enables these dimensions to be synthesized into a pedagogical perspective geared towards fostering enthusiasm for learning and for knowledge. The epistemic structure of the model therefore does not lie in the simple juxtaposition of different theories, but in the possibility of interpreting them as complementary levels of a single process: namely, the affective and functional educational relationship. Aimed at fostering relational well-being in the learner, it generates security and co-regulation; this security makes exploration possible, and exploration -being active in itself- enhances motivation; particular or momentary motivation takes the form of a deep, existential desire; this deep desire nourishes a sense of self-efficacy and agency; agency sustains engagement, and engagement further reinforces, in a virtuous circle, through meaningful experiences, self-efficacy, a sense of belonging, participation, activity and, once again, the desire to learn. From this perspective, wellbeing and participation are not side effects of instructional design, but rather constitutive conditions of learning: an authentically generative lesson is not one that simply conveys content effectively,

but one that creates the conditions for that content to become the focus of a subjective drive towards knowledge. The decisive pedagogical shift is therefore the one that enables a move from 'being present' to 'being involved', that is, from participation to genuine engagement, from the reception of knowledge to its pursuit.
The theoretical model proposed here, does not claim to resolve these open questions, but rather to provide a coherent integrative framework - grounded in convergent findings from social-cognitive theory, emotional intelligence research, interpersonal neurobiology, and affective neuroscience - capable of generating testable hypotheses for future empirical investigation into the generative conditions of authentic engagement.

References

Bandura, A. (2023). *Social cognitive theory. An agentic perspective on human nature*, N.Y.: Wiley

D. Dibitonto, (2015), *Dall'intenzionalità pulsionale alla relazione con l'infinito: fenomenologia e metafisica del desiderio*, in Teoria, Rivista di filosofia fondata da Vittorio Sainati, XXXV/2015/1 (Terza serie X/1), Edizioni ETS Pisa, pp.125-140

Dewey, J., (2018), *Scuola e società*, intr., a cura di F. Borruso, Edizioni Conoscenza, Roma

Goleman, D., (1996), *Intelligenza emotiva*, Milano: Rizzoli.

Immordino-Yang, M. H. (2017) *Neuroscienze affettive ed educazione*, Milano: Raffaello Cortina.

I. Kant, (1997), *Critica del Giudizio (Critique of Judgment)*, edited by A. Gargiulo, Introduction by P. D'Angelo. Ed. Laterza, Bari

Lucangeli, D. (2019). *Cinque lezioni leggere sull'emozione di apprendere*. Trento: Erickson.

McGaugh J.L, (2015), *Consolidationg memories*, "Annual review of psychology", vol. 66, pp.1-24

Panksepp J., Biven L., (2020), *Archeologia della mente, Origini neuroevolutive della mente*, Milano: Raffaello Cortina Editore

Rivoltella, P. C. (2020). *Nuovi alfabeti. Educazione e culture nella società post-mediale*. Brescia: Scholé.

Savino, A.D, (2026), *Desiderio e Relazione. Pedagogia per la formazione docente e la genitorialità contemporanea,* Roma: Ed. Universitarie Italiane.

Siegel, D. J., (2001), *La mente relazionale*, Milano: Raffaello Cortina.

Siegel, D. J. (2011), *Mindsight. La nuova scienza della trasformazione personale*, Milano: Raffaello Cortina.