

Corporality in transformative education: A rescue for higher education

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ABSTRACT

Reflections on transformative education often encompass issues such as paradigm shifts, valuing the subject, affectivity in relationships, and more thought-provoking and effective ways of learning and teaching. Several authors and theories point to the body as an element to be recognized in these dynamics. However, the arguments about corporality, which designates the living and experiential character of the body, appear in general in a diffuse way throughout different works and discussions, and often quite focused on the education of children and adolescents. This article proposes to compile relevant arguments about the power of corporality in transformative education from the perspective of higher education, in order to contribute to the broadening and deepening of this path of research and reflection. To this end, it conducts a literature review that identifies the issue of corporality in transformative education in terms of paradigms, subjectivity, organicity and pedagogy.

Keywords: Transformative Education, Corporality, Paradigm, Subjectivity, Pedagogy.

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INTRODUCTION

Among the basic arguments about transformative education, Freire (1996) and Mezirow (2010) emblematic are the role of the educator, the focus on the student, the relationship between teaching and learning, the need for new pedagogies and forms of management of educational institutions, the importance of human character and emotions for engagement in the classroom, consider the singularities of those who learn, value complex thinking, among other guidelines. There is, however, an element that, although not preponderant, is recurrent in several approaches and theories that seek to broaden and deepen the idea of transformative education. We're talking about the body.

Often the body is portrayed through the focus of symbologies, representations and social relations – the domain of corporeality. For this article, however, we will focus on the body from the point of view of its living and experiential character, the construction of affect, creative impulses, the interaction of the bodily senses with the world, and the neurological dynamics that influence learning – a perspective that we call corporality, following Flores-Pereira, Davel, and Almeida (2017). The purpose of this article is to carry out an initial mapping of how referential authors recognize the role of corporality in transformative education, offering an initial compilation of the subject, which today is spread across different works and thematic areas.

To this end, we propose a specific guideline, which is to present more clearly the powers and relevance of the body that are pertinent to a transformative education in the context of higher education. This is because the bodily universe gains more relevance in research and learning practices focused on children and adolescents; however, when it comes to adults (from the youngest to the oldest) immersed in academic life, the perspective of the body is more restricted to the place of discourse (if that) and less present in pedagogical and research practice (FLORES-PEREIERA, DAVEL; ALMEIDA, 2017). As if there were a split in the human being that runs through the entire school trajectory and, suddenly, could only learn in an almost exclusively intellectual way, eliminating the complexity of the body for understanding the world (SANTOS, 2018).

If transformative education defends in general an integrated perspective of the human being and of knowledge and ways of doing, it seems relevant to raise the question: *What are the perspectives on corporality in transformative education for higher education*? By bringing together concepts and proposals from different authors on this issue, we hope to contribute to possibilities of innovation and humanization of education in higher education, as well as to offer subsidies so that theory and practice in transformative education consider corporality more promptly.



This is a theme that has driven my work as an educator² in recent years, and also as a researcher interested in the interfaces between knowledge construction and corporality (BARRETTO, 2013; 2019; 2021). This article is another step in this trajectory that seeks alternatives to the dualism that separates the body from other dimensions of the subject.

THEORETICAL FRAMEWORK

To identify arguments about corporality in the context of a transformative education, in the sense proposed by Freire (1996;) and Mezirov (2010), we will initially explore authors who dialogue about how possible paradigm shifts in Western thought suggest a reconnection with the experiential power of the body in education. This is the case of Armella and Dafunchio (2015), Csordas (1990), Hergreaves (2013), Flores-Pereira, Davel and Almeida (2017), Martins (2015), Morin (2015), Santos (2013; 2018) and Tardif and Lassard (2008).

Also of interest for this investigation are the authors who address the ways in which human beings construct meaning and establish relationships with the world from a subjective perspective of the body and how this reverberates in education. This is the focus of reflections by Arroyo (2012), Bertolin, Cappelle and Brito (2014), Freire (1996; 2003), Salem and Coelho Jr (2010), Santos (2018) and Vasconcellos (2017a; 2017b).

This set of views is complemented by a group of authors who reflect on how learning processes are permeated and enhanced by characteristics of the living, biophysical body – what we call organicity here. In this section, we encompass both the body's ways of acting through emotions and affections, as clarified by Alves (2018), Freire (1996), Gómez (2009), Hargreaves (2003), Maturana (2001); as perspectives on the formation of emotions in human beings based on neuroscience, as appreciated by Damásio (2012), Davidson and Begley (2012), Pozaana (2013) and Tieppo (2019), Varela, Thompson and Rosch (2003) and Vidal and Ortega (2017).

Finally, we will gather conceptions that indicate pedagogical guidelines to include the living body in education and in the educator-learner relationship, according to the perspectives of Arroyo (2012), Brunstein and King (2018), Buber (1970), Freire (2003), Gay (2000), Gur-Ze'ev, (2005), Lorieri and Rios (2008), Martins (2015), Robinson (2018) and Santos (2018).

METHOD

The formulation of this article focuses on locating the issue of corporality for different authors associated with the discussion on transformative education. This investigation is based on a literature

² I highlight my work, since 2016, as a professor of Integrated Training for Sustainability, an undergraduate elective course at Fundação Getulio Vargas (SP), and the free courses that I have been taking through the Conecsoma project, since 2017, aimed at promoting reflection from the body and beyond it.



review, since its objective is to carry out a theoretical compilation of arguments and concepts about how the living body influences and enhances educational practice.

The compilatory nature of the research justifies the use of a slightly more extensive bibliography than is expected for an academic article. In order to organize this mapping and facilitate the presentation of the research results, we structured the investigation in four axes: paradigms, subjectivity, organicity and pedagogies, which are presented in a synthetic way at the end of the work.

Due to the vastness of the theme of transformative education, it was necessary to establish a guiding framework for the survey of the bibliography. We chose to work primarily with authors and basic works employed in the Specialization Course in Transformative Education at the Pontifical Catholic University of Rio Grande do Sul (PUC-RS). From these readings, we selected those that bring the perspective of corporality into the agenda and sought complements and updates.

We recognize that this approach does not allow us to consider the current study as definitive and that other authors can and should be included in future studies. But the overview made here shows weighty perspectives and arguments, which help to build relevant references for other research, as well as allow the structuring of key ideas about corporality in transformative education.

DISCUSSION

Thinking about a transformative education in higher education, from the perspectives of Freire (1996) and Mezirow (2010), means reflecting on a way of educating that is no longer centered on the accumulation of content, formatting of thought and control of subjects; open to the approximation between learners and educators, to the integration of knowledge, affection and emotions of the educational process and to include the experience of those who educate and those who are educated. Therefore, transformative education implies a recursive process of paradigm shift, which creates the conditions for its establishment as well as is influenced by the emergence of transformative education proposals.

PARADIGMS: EPISTEMOLOGICAL CHANGES FROM THE BODY

The body is a frequent reference for the contextualization of paradigm shifts by several authors who reflect on transformative education, although it appears in a diffuse and rarely privileged way. In general, the references point to the sociological, symbolic and cultural aspects of the body's involvement in education – corporeality, as clarified by the historical rescue of the term made by Ferreira (2013). Less frequently, the perspective of the living, embodied body is explored, which



engages in experiences such as education, with all its senses, emotions, and ways of expressing and acting – what is called corporality, as Flores-Pereira, Davel, and Almeida (2017) explain.³

It is based on this observation that we have gathered here some referential voices in the discussion on transformative education to understand how corporality appears directly or indirectly in their reflections and propositions. From the perspective of a paradigm shift, we first bring Morin (2015) who warns of the principle of disjunction that has isolated the three great fields of scientific knowledge from each other: Physics, Biology and the human sciences. From then on, Cartesian-based Western thought reduced the complex of life to the simple, configuring a hyperspecialization of thought and an ordering mathematization of reality, fragmenting and straying its complex fabric and ignoring the conjunction of the one and the multiple, as well as the connection between the observer and the observed. (MORIN, 2015)

There are many effects of this paradigm of Western thought still in force. For our discussion, it is interesting to point out that these same characteristics structure the way of doing education in recent centuries (MARTINS, 2015). And they affected the view of the human being, as Morin (2015) points out, disuniting their biological, cultural, language, ideas and consciousness dimensions, forgetting that each one is at the same time the other, despite being treated with different terms and concepts. As a consequence, we have developed a tendency to extend human rationality – its ability to dialogue with reality through a logical system – to a habit of rationalization, which is the practice of enclosing reality within a coherent system, discarding everything that cannot fit within it (MORIN, 2015).

The living body corresponds to one of these discards, Santos (2013) reflects, when defending the overcoming of what he calls the Northern Paradigm, which is based on the idea of a rational subject that has an epistemic character and not a concrete or empirical one. Although we think and know through the body, Santos (2013) argues, although it is through the body that we perceive, experience and create memories of the world, this same body tends to be seen as a mere support for a tabula rasa of all the valuable things produced by human beings.

The need to move away from the notion of the human as a tabula rasa is strongly defended by authors who help to think about transformative education. In this sense, Freire's reflection is emblematic: "*the human body becomes a conscious body, a capturer, a seizure, a transformer, a creator of beauty and not an empty "space" to be filled by contents*" (FREIRE, 1996, p. 22).

For Armella and Dafunchio (2015), the way the body inhabits the school has been the same for 200 years and it is only since the 1970s that the Cartesian perspective has been opposed by a

³ The authors note that there is no consensual translation for the term *emdodiment* in Brazil, which we understand here as corporality, and it is possible to find writings in which the expression is associated with the word corporeity, already widely used by the sociological perspective, which can generate some confusion. We have chosen here to keep the term corporality, more associated with Anthropology, which is also identified with the translations body-person and philosophy embodied.



political perspective – of which Foucault is the greatest reference – and by a perspective of the representation of the body, which has Douglas and Breton as the most forceful voices. A third perspective emerges from the 1990s onwards and highlights the active and transformative character of body praxis in social practice, proposing to recover the perspective of *embodiment* (corporeality), in a critical position to the exclusively representational approach that perceives the body only as a sign or symbol and ends up transforming it into something passive and inert, as stated by Armella and Daunchio (2015).

Csordas (1990) is one of the referential thinkers in this perspective and states that the objectified body distances the subject and the experience. The author brings the focus of phenomenological anthropology to argue that language is not a substitute for experience, nor for *embodiment* or the dynamics of perception.

In the same sense, Bertolin, Cappelle and Brito (2014) refer to Merleau-Ponty's phenomenology and his idea of the lived-body, the one that configures the depth of the relationship with the other, "(...) *being the only means available to the subject to get to the heart of things and, therefore, constituting subjectivity, arising from the intertwining of the body with the world*.(BERTOLIN, CAPPELLE AND BRITO, 2014, p. 23)

SUBJECTIVITY: CREATION OF MEANINGS OF ONESELF THROUGH THE INTERACTIONS OF THE LIVED BODY

From the relational point of view, Salem and Coelho Jr. (2010) indicate that Merleau-Ponty's phenomenology provides the basis for an "intersubjectivist position" of contemporary philosophy and psychology, which indicates that only through the experience of interaction in an environment of interpersonal exchanges does a being develop its sociocognitive abilities and self-identity. It follows that instead of a self-sentient (one whose body is only a reflection of the world) a self-agent is revealed, whose perception also takes place through the body, in a process that is neither interior nor exterior. Salem and Coelho Jr. (2010) amplify this idea for the notion of an ecological self, by recalling that the baby experiences his gradual sense of interaction with the environment from different perceptual stimuli, associating, for example, body movement (proprioception) with a sound or visual effect produced.

Since human interactions must be taken as the basis for education, Tardif and Lassard (2008) point out, it is not possible to confine the body to the control regimes denounced by Foucault, such as rules of behavior, postural ordering, economy of gestures and all kinds of "*school practice*" that silences the impulses of the body in the name of "*central dichotomies such as subject/object, spirit/matter, intellectual/manual, etc.*", subjugating it to the "*valorization of verbal-intellectual functions*". (TARDIF; LASSARD, 2008, p. 58)



For Santos (2018), there is an incompatibility between assimilating the body in all its emotional and affective density and the epistemologies of the North, since the tendency of Western thought is to make it an object of study before embracing it, without conceiving it, therefore, as a somatic narrative. For the author, the body is a victim of the epistemicide promoted by Cartesian Western thought, which despises or eliminates everything that does not fit into its formatting. Thus, the body becomes an absent presence and bodily emancipation and subversion become impossible, even when the body produces a discourse of emancipation and subversion. (SANTOS, 2018, p. 88)

Also in the context of the body as a dimension of emancipation of the subject, Arroyo (2012) states that learning theories need to assimilate that the mind is corporeal and that bodies learn, carry languages, readings of the world and of themselves, as well as recognize the hardships of destroyed bodies, the construction of broken identities, the weight of taking negative readings of themselves to educational institutions. of the city and of living.

In this context, the author draws attention to the fact that the same children's bodies that are precarious and degraded by alienating and oppressive social practices of the logic of capitalism – losing autonomy, agency over themselves and appropriation of their history – can throw themselves into practices of transgression, resistance and subversion of the current order. Part of this impulse is associated with the important playful dimension that emerges from movement and play, revealing forms of sociability, creativity and the construction of humanity. (ARROYO, 2012)

This reality outlined by Arroyo in relation to children and adolescents finds in Morin (2015) a bridge to extend its consistency to the bodily reality of adults and, therefore, to the perspective of higher education. For the French thinker, the playful side is decisive, the human being is a being who plays all his life and his multiple character integrates *homo ludens* to his various other dimensions (*sapiens, faber, demens, economicus* and *consumans, empiricus* and *imaginarius*).

This perspective establishes, on the one hand, a connection with Vasconcellos' (2017a; 2017b) view that transformative education helps to rescue the inner child, nurturing the construction of meaning and transformative radical affect. On the other hand, it bridges the view of Maturana (2001), for whom knowledge is inseparable from the process of living, which makes emotion the great reference of human action and life, in turn, is considered a cognitive process, and the body is the basic place for all learning processes. Based on the notion that the affective body is in constant dialogue with the environment, the author indicates that educating involves structuring a space of coexistence desirable for the other, so that everyone can flow in connivance, mutually influencing and transforming each other. (MATURANA, 2001)



ORGANICITY: THE EXPRESSION OF THE BODY AS AN OPEN SENSORY SYSTEM

Maturana's formulation helps us to understand how bodies in education – as a living expression of the human and as an episteme – constitute open living systems, from the perspective of what Morin (2015) brings when he reminds us that they are in a permanent state of disequilibrium and that they are constituted by the relationship between themselves and with the environment, in a dynamic of uncertainty and mutual affections.

As a result, we have that both thinking about the human in education must be open to the integration of the thinker with what is observed – in our case, the body itself – and the body itself enhances in its living experience the integration with thought. We also have that the expressive body can also be considered a way of telling life, experiences and knowledge, allowing knowledge to move from the place of explanation to the place of understanding. (MORIN, 2015)

Another caveat about the character of the body as an open system comes from Santos (2018). For him, opening up to the world remains a mere abstract philosophical concept, if it is not taken into account that different bodies do not open up to the world in the same way: either in the ability to represent the world as their own, or in the ability to change it according to their interests and aspirations (SANTOS, 2018, p. 168). The thinker also reminds us that if the same object or practice can be socially constructed to be seen, at a deep level it can be heard, touched, smelled, tasted. In this way, it brings to the agenda the intersecting multiplicity of meanings as one of the most complex topics in social interactions and, therefore, in learning. (SANTOS, 2018, p. 167)

The perspective of the senses evokes the harvest of the living body, and opens space for another strand of studies that has been quite recurrent in transformative education: that of neuroscience. A first important distinction to make is that, although there is a focus on recognizing the influence of the body's nervous system on learning processes, it is essential to keep in mind, according to Damasio (2012), that cognition and the mind are not phenomena restricted to the brain, but involve the body as a whole. Thus, cultivating the intellectual and humanized formation of students involves stimulating the entire integrated system of the body, in diversity of situations, activities, sensorialities and resources.

Vidal and Ortega (2017) also point out that identifying the signals of brain activity to each human action and reaction does not mean that they are limited to that, but rather that this is a possible approach to study the body's ways of interacting with the world. Contextualizing the discoveries of neuroscience, Pozaana (2013) rescues Francisco Varela, who identifies in the field of cognitive sciences an ongoing paradigmatic change: "*right at the center of this emerging vision is the belief that the very units of knowledge are fundamentally concrete, embodied, embodied, lived*" (apud. VARELA, F.; THOMPSON; ROSCH, 2003, p. 72).



That said, it is relevant to note some of the conclusions of neurological investigations regarding the functioning of the brain and its influence on learning processes. As Tieppo (2019) presents, emotion interferes in the process of retaining what is learned; Motivation is necessary for this learning; attention is fundamental to both perceiving and learning; the brain changes in contact with the environment, throughout life; and the formation of memory is more effective in association with the knowledge already acquired. The author emphasizes the important interaction between the functions of the hippocampus, hypothalamus, amygdala and cerebellum for these and other elements of learning to happen. And it locates brain action as a perspective of the body – socio-emotional intelligence as a dimension of body intelligence (TIEPPO, 2019)

Davidson and Begley (2012) also look at brain functioning, when dealing with selfawareness, a phenomenon strongly linked to the insula, a structure that participates in the mapping of the body and organs. When we pay attention to the sensation of our body, the insula is activated, which indicates that self-awareness depends on the internal ability for a kinesthetic consciousness, that is, for the ability to feel emotions and how they impact attitudes (DAVIDSON; BEGLEY, 2012).

Gómez (2009) contextualizes the amygdala and hippocampus of the brain as part of a network of activation of the body, helping it to be alert, since they are associated with the qualification of external stimuli (emotional nuance). For him, this networked body calls into question Descartes' *cogito ergo sum*, as it indicates that before thinking beings who feel, we are emotional beings who think.

In the brain, neurons fire networks everywhere, forming a complex system of interaction, which connects emotions to feelings, moods, thoughts. Joy, sadness, anger, fear, curiosity, disgust are the basic emotions, discovered in all cultures, on which thousands of possible emotional nuances are built, which, according to Gómez (2009), are shaped by culture.

Thus, the body is not limited to a profusion of physiological processes, but configures a true universe of subjectivity, as Arroyo (2012) helps to locate when he states that "*The human being itself, as a human body, in each human time, has its specificity*". For the author, the exhaustion of bodies throughout childhood and adolescence is an obstacle to the formation of humanized beings. Hence the importance in higher education of rescuing humanity also through the body, considering that the previous processes of development of students may have suffered jolts, interfering in this stage of education.

This perception leads us to Santos' (2018) argument that bodies are in everything, but never in the same way, since each body is in constant reinvention and its anatomical codes are difficult to understand. A panorama that is usually left aside by the epistemic or theoretical gaze, which seeks to make the body a predictable and intelligible object. (SANTOS, 2018, p. 89)



This finding brings us, once again, to the exhaustion of Western thought and to the demand in contemporary times for knowledge that we have become accustomed to despising. For Santos (2018), the understanding of the world is much broader than the Western understanding of the world and the bodily universe plays an important role in the reorganization of this paradigm: "*The body helps to restore the impulse of relationship outside of economic reasons*" and adds that the bodily universe goes far beyond its physicality, influencing the construction of meaning by each human being and in the collective of society. Body knowledge has a non-linguistic, non-propositional character, which can expand proximity and familiarity and even strengthen bonds of trust, well beyond the possibilities of linguistic exchange. (SANTOS, 2018, p. 92)

It is in this sense that Bertolin, Capelle and Brito (2014) rescue Yakhlef's (2010) view of Merleau-Ponty's phenomenology, emphasizing the body as a link with the material and social world – therefore, an intermediary between learning and knowing. And emphasizing learning as a process that incorporates and absorbs new skills and understandings within the body schema, which ends up transforming the ways of perceiving and acting.

PEDAGOGIES: WAYS TO ASSIMILATE CORPORALITY IN TRANSFORMATIVE EDUCATION

If the powers of the body are essential to human existence and to its ways of learning, being immersed in a paradigm that ignores them undermines the assimilation of the body in transformative education. As a good part of this effort implies pedagogical reformulation, it must be borne in mind that: "*Training is a learning process also at the level of affections. It is a conception of learning that cannot be reduced to a psycho-pedagogical or technical-methodological debate* (...) [and must] *accompany the effects of the practices*" (POZAANA, 2013, p.10).

In this sense, Santos (2018) proposes some principles that can be taken as pedagogical guidelines. First, we highlight the *warming of reason*, which is the process by which ideas and concepts continue to arouse motivational emotions, creative and empowering emotions, and transform absence into emergency, the unattainable into the right to reach the hand. In this way, the warming of reason is accompanied by the warming of ethics (SANTOS, 2018, p. 97). For the author, assimilating the contexts of social struggle is a bridge to the warming of reason. It is also worth adding bodily practices, art and rituals as phenomena that propel the body to transform latency into power predicted by the warming of reason.

To deepen the meaning of the concept, Santos borrows the idea of *corazonar* present in native Andean cultures, which alludes to the healing of being, and the term sentipensar, proposed by sociologist Orlando Fals Borda, which indicates the fusion of reasons and emotions that occur, giving vent to anticipations and motivations of empowerment. (SANTOS, 2018, p. 100)



Corazonar is a feeling-thinking that brings together all that is separated by dichotomy. It aims to be instrumentally useful while still being expressive and performative. (...) Corazonar is the act of building bridges between emotions/affections, on the one hand, and knowledge/reasons, on the other. (...) Such a bridge is like a third reality, that is, a reality of significant emotions/affections and emotional or affective ways of knowing. (...) On the sociocultural level, corazonar presupposes anticipation that runs the risk of being accepted in the social group. In other words, far from being reactive, it's a creative agency focused on problem-solving. (SANTOS, 2018, p. 101)

Corazonar and *heated reason* are elements that are implicit in another concept of the author that guides the formulation of new pedagogies. The *post-abyssal logic* indicates knowledge with and not knowledge about (SANTOS, 2018, p. 128), providing epistemic ecologies invested with horizontal cooperation and the consortium between scientific knowledge and artisanal knowledge and practices, in a relationship of mutual benefit (SANTOS, 2018). The pedagogical dimension that emerges from this includes self-knowledge and dialogues strongly with Paulo Freire's pedagogy of liberation, ponders Santos (2018, p. 154). This pedagogy also has an intercultural sensorial aspect, rooted in concrete bodies that demand the construction of an internal ecology of sensory experiences capable of providing sufficient flexibility to take care of the different encounters generated by both a process of research and struggle. (SANTOS, 2018, p. 182)

In the context of a paradigm transition, the author recognizes difficulties in the path of adopting the post-abyssal logic, whether for researchers in research institutions or for educators in educational institutions, since most organizations are still quite immersed in the Cartesian paradigm. (SANTOS, 2018, p. 265)

Hargreaves (2003) also bridges the gap between pedagogy, paradigm change and the role of the educator in offering a counterpoint to the knowledge society – a mental model that reinforces education as a mere vector for the transmission of information and the accumulation of content.

Among the elements that the author presents in this way, it is especially important for our discussion the perspective of an affective action of the teacher, which translates, according to Hargreaves (2003), into the promotion of social and emotional learning; in the establishment of lasting ties and relationships; in the construction of emotional understanding; and fostering relationships with parents and communities. All these actions speak not only of the teacher's proactivity, but of a close, more open and affective relationship, which goes through the emotions and the body's ways of communicating.

It is worth recalling here three other concepts about the work of educators. The first is that of the teacher-improviser (GUR-ZE'EV, 2005) who adopts a critical position and encourages students to critical reflection, along the lines of what Freire (2003) proposes, but without fixing premises and utopias – Gur-Ze'ev updates – by bringing the image of the improviser both in the reference of the



jazz musician and the scientist. From a repertoire, they rely on emotional intelligences that go beyond formal knowledge to build paths and solutions. The second concept is that of the teacher-builder (BUBER, 1970), which stimulates the constitution of a dialogic community and the formation of the character of its members. And the third is the teacher-facilitator (BRUNSTEIN & KING, 2018), who mediates learning from the perspective that critical thinking is a living activity, a process of thinking about new possibilities. In these three perspectives, which are carried out in a combined way, we are talking about the formation of bonds and subjects that begin to affect each other, thus evoking the sensitive intelligence of the body.

The issue of the quality of stimuli is also addressed by Robinson (2018), who shows the importance of giving space to the wide variety of talents of students, which demands a broader curriculum and a more flexible didactics. The author reminds us that one of the attributions of education is to broaden and extend the interests of students, also towards those areas in which they do not appear to have a natural affinity. For him, the power of creativity exists in the different disciplines and, therefore, should be stimulated as part of a comprehensive education program. If educating is humanizing the world, education becomes a process of transformation through coexistence (ROBINSON, 2018)

This perspective resonates with the twenty-first century competencies extolled by Gómez (2009), who speaks of a place of the mind not restricted to the intellect, corresponding to the instances of moving (the combination of the scientific and artistic mind), moving (the interpersonal, ethical and social mind) and removing (the intrapersonal mind, which is the place of wisdom and autonomous action). Just as Alves (2018) talks about the importance of love as an essential element for a transformative education, Gómez (2009) considers a pedagogy of affection necessary, stimulating the integral development of the individual, and relating emotions and feelings to knowledge. If this is a practice of a very affective and, therefore, bodily nature, Gómez also offers an important way to make sense of the body in education. It advocates a methodology that involves theorizing practice and experimenting with theory, and that allows experiencing first to formalize later (GÓMEZ, 2009).

We can locate this place of practice and knowledge from the body in the field of aesthetics, as Lorieri and Rios (2008) invite, when they point to both the embodied, sensitive presence and the bodily relations present in the educational routine, from gestures to forms of approximations and bodily distancing between people. This perspective is associated with that of ethics, which should be the mediating element of all the choices we make, which in turn represent politics in the teaching profession, when the educator assumes responsibility and consequences for the choices he makes (LORIEIRI; RIOS, 2008.)



Educational choices are also the focus of culturally responsive pedagogy, as Gay (2000) points out, and involve the body to the extent that they are based on students' previous experiences, their styles of action and their cultural knowledge to make learning more appropriate and effective for them.

As an additional guideline to formulate a transformative pedagogy that assimilates corporality, it is worth mentioning Martins (2015), who highlights three fronts: educating in an integrative vision of the body-soul; educating for health; educating the lived corporeality⁴. (MARTINS, 2015, p. 176)

This range of pedagogical possibilities is connected with Arroyo's (2012) argument about the urgency of overcoming the estrangement and invisibility of bodies – advancing in the construction of a pedagogy of bodies in which the subjects of learning and education are not seen as incorporeal cogitos. Such pedagogy should focus on overcoming the forgetfulness, minimization and lack of knowledge of the bodies of both students and educators, in the context of rethinking the temporal-spatial, work and learning structures. And also, in the specific context of those who educate, to give rise to an ethical and aesthetic duty to get into the skin of the other and to carry out exercises of political-pedagogical alterity through corporality (ARROYO, 2012).

RESULTS AND CONSIDERATIONS

Our reflection on corporality in transformative education was based on arguments by referential authors on the subject and aimed to map and bring together these ideas that are diverse – in quantity and focus – but that are dispersed throughout works and broader contexts of discussion and parallel themes.

It was possible to identify that in addition to the symbolic body and social representations, commonly treated from the perspective of corporeality (FERREIRA, 2013; FLORES-PEREIERA, DAVEL AND ALMEIDA, 2017), there is already a consistent understanding of the importance of the lived body as fundamental for the construction of subjectivities, for the enhancement of the learning processes of the human being (ARMELLA; DAFUNCIO, 2015; FREIRE, 1996; GÓMEZ, 2012; HERGREAVES, 2013; MATURANA, 2001; MORIN, 2015; ROBINSON, 2018; SANTOS, 2018; TIEPPO, 2019; VARELLA, 2003; YAKHLEF, 2010), for the elaboration of pedagogies (ARROYO, 2013; LORIERI; RIOS, 2008; MARTINS, 2015; ROBINSON, 2018; SANTOS, 2018) and to overcome the Cartesian paradigm of Western thought (CSORDAS, 1990; MORIN, 2015; SANTOS, 2018) that separated body, mind, soul, spirit, and fostered a society of segmentations and a fragmented construction of scientific thought.

⁴ Corresponding to the term corporeality, as we use it in this article.

By opting for an exercise of compilation and connection of these different arguments, this article contributes with another step towards the understanding of the possibilities of a transformative education and the fundamental role that corporality has in this movement, beyond specific disciplines, such as physical education. We are talking about the body that apprehends reality, translates the intelligible, constructs knowledge, transforms reality, creates meanings and engages through senses and emotion with life. (FREIRE, 1996; SANTOS, 2018)

To facilitate the visualization of this contribution, we have produced the following table, which summarizes the main findings of the research carried out from a literature review.

	> learning is also done in affection
	> complexity
DADADICNE	> phenomenology of perception
PARADIGMS	> integration of biological, cultural, language, reflective and consciousness dimensions
Perspectives of	> non-rationalization
thought that	> living body as part of epistemology
underpin the	> embodiment (person-body, lived-body, incarnated philosophy)
integration of corporeality in education	> intersubjectivity
	> agentic self / ecological self
	> integrated multiplicity: homo faber, homo ludens, homo demens
SUBJECTIVITY Characteristics of the subject enhanced by corporeality	> knowledge inseparable from living
	> experiential subject
	> living as a cognitive process
	> body as an open system
	> body as an integrating dimension of the human
	> emotional being who thinks
	> ways of the body being present and interacting influence reason and ethics
	> body experience creates problem-solving agency
	 > bodily experience as construction of meaning
	> bodiny experience us construction of meaning
ORGANICITY <i>Qualities of the</i> <i>biophysical body</i> <i>associated with</i> <i>corporeality</i>	> crossed multiplicity of senses
	> brain activity as part of the body
	> cognition emerges from the integrated body
	> demands multiple stimuli
	> embodied knowledge
	> learns through emotion, attention, motivation, association and contact with the
	environment
	> socio-emotional intelligence is a dimension of bodily intelligence
	> acts through network activation
PEDAGOGY Guidelines for the inclusion of corporeality in	> learning is also done through affection
	> aesthetic dimension of learning
	> heart, feel, think
	> connect reason and emotion
	> unite scientific and artisanal knowledge
	> sensory experiences
	> oppose contentism
	> community ties with students and parents
aducational	> teacher-builder, improviser and facilitator
educational activity	
educational activity	> stimulate individual talents
	> stimulate individual talents



The overview presented in this article is partial and not definitive, and can and should be expanded and deepened by future studies. Even so, it allows us to verify some points of progress for the knowledge about corporality in transformative education. The first is that, if there is already a consistent reflection on the subject, the bridge with practice seems somewhat fragile and offers space for new contributions, making more tangible ways in which corporality can integrate pedagogies of transformative education. The look brought by different authors is quite inspirational and reflective, but it does not always provide a path of action for educators, especially for those who are not familiar with the body. *Perhaps because* of the very lack of connection between the eventual bodily practices of the thinkers and their exercises of reflection – this is also a theme for a very thought-provoking ethnographic study.

In this sense, we believe that there is a potential benefit of connecting the theory and studies of the area with the vast field of somatic education, which draws on the sensitive dimension of the bodily universe to build dynamics of body awareness, self-knowledge, dialogue and qualities of movement that help to express the relationship between autonomy and collectivity in people. and to translate themes from the human, physical and biological sciences into the logic of the living body.

Finally, we believe that it is opportune to deepen the discussions on corporality in the context of higher education, given that the lived body is still seen with more receptivity when talking about children and adolescents, but it seems to become a kind of non-theme when it comes to adults – young and old. The impression is of a perpetuation of the Cartesian paradigm, whereby the classroom in the academy is no place for the integrated body, only for its intellectualized impulses. Challenging this resistance involves both new pedagogical proposals focused on learners, as well as other types of stimulus and training for educators, as well as a corresponding positioning of educational institutions to this type of humanized innovation and open to other logics of knowledge.



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