

Critical dialogues in complex systems. Epistemic-educational redefinition from philosophical didactics

Diálogos críticos en sistemas complejos. Redefinición epistémico-educativa desde la didáctica filosófica

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Abstract

This article proposes a radical redefinition of education through Philosophical Didactics, challenging Cartesian and colonial paradigms that fragment knowledge. Confronting instrumental rationality and necropolitics — which mark certain bodies and knowledges as disposable— it articulates a decolonizing pedagogy that reclaims marginalized epistemologies (such as the Andean *sumak kawsay* or African *Ubuntu*), destabilizing modern individualism and advocating an ethics of interdependence. Methodologically grounded in philosophical hermeneutics, the theoretical framework integrates Morin (complexity as dialogue of irreducible tensions), Freire (education as a political act of liberation), and De Sousa Santos (ecology of knowledges) to transcend educational homogenization. Philosophical Didactics emerges as a praxis of the impossible: a hermeneutic art that inhabits chaos, challenges epistemic hierarchies, and coconstructs knowledge from the margins. By merging critique and hope, the text redefines education as a metabolic act that sows alternative futures —a ritual of resistance where the classroom becomes a space for cognitive justice, biocultural reciprocity, and the memory of the excluded. Thus, it transcends enlightened neutrality to become an ethical ferment of possible worlds.

Keywords: critical dialogues, complex systems, philosophical didactics.

Resumen

Este artículo propone una redefinición radical de la educación desde la Didáctica Filosófica, cuestionando los paradigmas cartesianos y coloniales que fragmentan el saber, frente a la racionalidad instrumental y la necropolítica que marcan ciertos cuerpos y saberes como desechables, se articula una pedagogía de la descolonización que recupera epistemologías marginadas, desestabilizando el individualismo moderno y proponiendo una ética de interdependencia. Esta producción deviene desde una hermenéutica filosofía que permitió metodológicamente configurar el entramado teórico que integra a Morin (complejidad como diálogo de tensiones irreducibles), Freire (educación como acto político de liberación) y De Sousa Santos (ecología de saberes), para superar la homogeneización educativa. La Didáctica Filosófica se revela como praxis de lo imposible, un arte hermenéutico que habita el caos, cuestiona jerarquías epistémicas y co-construye conocimientos desde los márgenes. Al fusionar crítica y esperanza, el texto redefine la educación como acto metabólico que siembra futuros alternativos; es decir, un ritual de resistencia donde el aula deviene espacio para justicia cognitiva, reciprocidad biocultural y memoria de los excluidos. Así, trasciende la neutralidad ilustrada para erigirse en fermento ético de mundos posibles.

Palabras clave: diálogos críticos, sistema complejo, didáctica filosófica.

Introduction

In the complex and multifaceted context of the labyrinth of late modernity, education faces a fundamental dilemma that places its essential functions in tension: on the one hand, the uncritical and almost automatic reproduction of hegemonic paradigms that sustain established power structures; and on the other, the urgent need for collective emancipation that problematizes, questions, and transforms these dominant schemes. This critical juncture raises a radical and profoundly philosophical question, situated at the heart of philosophical didactics: is it feasible to reimagine educational praxis not as a mere act of content transmission, but as a conscious and deliberate act of epistemic resistance?

This questioning invites us to rethink education from a perspective that transcends the neutrality traditionally attributed to the classroom and teaching-learning processes. Epistemic resistance, in this sense, is configured as the capacity to confront and dismantle the official and hegemonic modes of knowledge production and circulation that have historically been used to reproduce social and political hierarchies by promoting alternative, critical, and plural knowledges. Therefore, philosophical didactics must then assume a strategically subversive role, turning educational praxis into a space where rigorous dialogue, critical reflection, and epistemological self-awareness become tools for the decolonization of thought and the recovery of cognitive agency of learning subjects.

Likewise, this reimagining must integrate and articulate ethical and political dimensions, understanding that education shapes subjects from a cognitive point of view, contributing to the formation of identities, values, and capacities for transformative action. In this sense, educational praxis implies a profound commitment to epistemological justice, the recognition of epistemic diversity, and the democratization of access to knowledges that legitimize the experiences and knowledge of subaltern, marginalized, or silenced groups by dominant discourse.

Thus, philosophical didactics responds to the challenge of late modernity by proposing a critical pedagogy that interrogates installed certainties, promotes constant questioning, and enables an educational practice that is, in itself, a liberating and revolutionary act. From these considerations, the radical question about the possibility of an educational praxis as epistemic resistance opens new paths for theoretical reflection, demanding concrete innovations in methodologies, curricula, and pedagogical relationships aimed at strengthening critical autonomy and active participation of learners.

This vision reveals itself as a critical manifesto that, from the foundations of philosophical didactics, interrogates the complex systems that configure and constrain teaching-learning processes. In such a way that the intention goes beyond a critical analysis, reaching a deeply disruptive approach, from the decolonizing search of the pedagogical imaginary through a critical dialogue that recognizes education as an ontological battlefield; an approach based firstly on the postulates of Morin (1990), in his principle of dialogics, warning that "every complex system harbors irreducible tensions"; and on the ideas of Freire (1970), from the pedagogy of the oppressed, recalling that teaching is a political act of re-existence; however, this approach transcends the limit of a theoretical synthesis by invoking Giroux (1988) and his critique of instrumental rationality that reduces education to technical simplicity at the service of capital, or the paradigm of complexity and its transdisciplinary commitment that dissolves the boundaries between knowledges to think the improbable.

Under this panorama, the article unfolds a critical cartography that exposes how educational systems have operated as homogenizing devices, denying situated knowledges and epistemologies of the South. This act deploys complexity as a gesture of insubordination; that is, a call to overflow the limits of the sayable, to

weave dialogic networks where knowledge surpasses imposition, co-constructing from the tension between the local and the global, the singular and the collective. This perspective questions the colinearity of knowledge, activating an epistemology of languor, where learning intertwines with the memory of the excluded and the urgency of knowing justice. It is, in short, an act of rebellion against the monocultural logic that hijacks the transformative potential of education in this present era.

Ultimately, this text transforms into a Philosophy in Motion, where critique transcends its role as an analytical tool to become a threshold of possibility. Therefore, by articulating these dialogues, the aim is to redefine education from a radically relational episteme that, by recognizing its intrinsic politicity, activates its metabolic potential; as a ferment in alternative cosmoses, where the educational reveals itself as an ethical seed and a space for collective invention.

From this context, philosophical didactics becomes a praxis of freedom; an art of inquiry that, instead of offering answers, cultivates the ideal questions to inhabit and transform the complexity of the real. It is here where critical thinking, by breaking with dichotomous logic, invites a foundational act; that is, educating to awaken consciousness that every pedagogical act is, in itself, a gesture of creation and resistance, which is inexhaustible as it feeds on hope, the hope that allows us to build, from the cracks of the system, an education that names the unnameable and sows, in the heart of the existing, the seeds of the future.

Method

The epistemological foundations of this research are based on a postpositivist episteme, starting from the premise that every vital process must be oriented towards a clear purpose and meaning. Consequently, the research adopts a qualitative approach, specifically the methodological line of the hermeneutic-dialectical method, which, according to Martínez (2011), "is indispensable and practically essential when human action or behavior lends itself to multiple interpretations" (p. 102).

The hermeneutic-dialectical method promotes a deep and contextualized understanding of human phenomena through dialogue between different interpretations and the constant tension between parts and the whole. This methodology allows unraveling the intrinsic complexity of human experience, integrating contradictory and complementary dimensions to achieve a broader and more critical vision of the object of study. In this way, interpretation becomes an essential methodological key to understanding the most significant and complex structure within the global system of personality, allowing analysis to transcend superficial appearances and reveal the deep meanings that guide human action.

Results

This level of analysis focuses on two major emerging dimensions of this research: the theoretical framework grounded in the philosophical didactics of education, and philosophical didactics as decolonization of knowledge and praxis of the impossible. Figure 1 illustrates these aspects visually, facilitating understanding of the relationship between the different perspectives involved.

In this analysis, the conceptual horizons of key informants, the position of theorists, and the intersubjective vision of the researcher are contrasted, allowing the construction of a hologrammatic vision. This vision is characterized by integrating multiple dimensions and perspectives, thus offering a deeper, more complex, and dynamic understanding of the area studied, overcoming linear or one-dimensional approaches and enriching the research discourse with a plural and contextualized approach. Therefore, the application of a hologrammatic vision in research implies recognizing and articulating diverse dimensions and perspectives simultaneously, as if each part reflected the whole and the whole were present in each part.

For example, in the analysis of philosophical didactics, it involves integrating the experiences and knowledge of key informants together with current theoretical frameworks and the critical interpretation of the researcher, to generate a complex and multifaceted understanding of the educational phenomenon.

A practical case of this application is highlighted in the study of how philosophical didactics promotes the decolonization of knowledge. From the informants' perspective, personal experiences and pedagogical practices are gathered; from theory, philosophical and epistemological concepts are contrasted; and from the researcher's vision, a critical interpretation is made that unites these dimensions into a single analytical framework. Thus, a fragmented approach is avoided and an integral understanding is privileged that reflects the richness and complexity of the studied field, allowing the identification of tensions, complementarities, and agreements that enrich the research process and its contribution to knowledge.

This approach expands the depth of analysis and also favors the generation of more inclusive and transformative educational proposals, since it is based on a plural understanding that recognizes the diversity and complexity of knowledge and human practices.

Theoretical framework grounded in the philosophical didactics of education

Philosophical didactics, in its essence, beyond being conceived as a method, is an ontology in motion, a challenge to the very foundations of what is understood by educating. Its genealogy is rooted in the critique of enlightened modernity that reduced knowledge to an instrument of control (Horkheimer & Adorno, 1944/1998), but it is radicalized in the Introduction to Complex Thinking, proposed by Morin (1990), when he states that "education must be a journey towards organized uncertainty, where each answer generates new questions" (p. 37). This vision destabilizes Cartesian epistemology, demanding a fractal didactics, where the learning context is conceived as a living, autopoietic system, constantly reorganizing itself in the face of tensions between order and chaos.

In this framework, Paulo Freire's critical pedagogy (1970) acts as a decolonizing trigger, stating that "Education is an act of love and, therefore, of courage; it is a practice of freedom that denies imposed silence" (p. 91). For Freire (1970), literacy is an exercise of conscientization, a dialectical process where the oppressed cease to be objects of history to become subjects of their own transformative intellectual narration, a figure that alters the neoliberal logic that reduces education to banking. Meanwhile, Giroux argues that "radical pedagogy is an act of historical memory, where excluded voices are recovered to question the present" (p. 67). In this way, philosophical didactics rises as a living and active element, where Basarab Nicolescu's transdisciplinarity (1996) provides an essential epistemic dimension, centered on the definition of this approach as "the art of inhabiting the spaces between disciplines, where the real reveals itself in its inexhaustible fullness" (p. 29). This principle allows questioning the compartmentalization of knowledge by proposing an epistemology of thresholds, where the educational transcends subject-object, theory-practice dichotomies.

Based on these considerations, philosophical didactics is interconnected with the ecology of knowledges of Bonaventura de Sousa Santos (2009), who in his work "An Epistemology of the South" affirms that "there is no total ignorance, but knowledges denied by colonial reason" (p. 45). The author insists that cognitive justice as epistemic dignity of ancestral knowledge constitutes a microcosm where multiple forms of understanding the world coexist without hierarchies. However, this theoretical framework would be incomplete without the ethics of liberation of Enrique Dussel (1998), who postulates that "All education is an act of exteriority, which emerges from the excluded to challenge the hegemonic totality" (p. 154). This ethics is irreducible to compassion; on the contrary, it materializes in an anti-systemic pedagogical praxis where Freirean dialogue is enriched by listening to historical silences.

Reviewing the manuscripts of Dussel (1998) and Freire (1970), an ethical event is glimpsed, a commitment to alterity that rejects the objectification of the other. Complementing Morin (1990): "teaching the human condition is teaching the unity of the diverse and the diversity of the one" (p. 102), a principle that challenges cultural homogenization and celebrates fractality. In this constellation of ideas, philosophical didactics reveals itself as a Metaphor of chaos, seeking to inhabit disorder creatively; its power lies in its capacity to generate questions that dismantle certainties; as Giroux (1988) warns, when he notes that "education is not neutral; it serves either to domesticate or to liberate" (p. 89).

In this sense, opting for the second approach implies assuming education as an act of insurgency, where knowledge is co-created from a dialogic encounter with the unexpected; that is, a call to reimagine education as a libertarian cosmos exercised through the collective practice of resistance and hope.

Philosophical Didactics as Decolonization of Knowledge and Praxis of the Impossible

Education, at its contemporary crossroads, goes through an "Epistemic Crack"; hegemonic educational systems, anchored in modern colonial logic, have perpetuated an ontology of separation, from the dissociation between reason and emotion, the human and its nature. Faced with this vision, the epistemic-educational redefinition from philosophical didactics is far from a theoretical adjustment; therefore, it requires a categorical earthquake that dismantles the pillars of the enlightened paradigm, articulated as a project of cognitive disobedience, where philosophy beyond an eidetic corpus becomes a gesture of insurgency against instrumental rationality, as Horkheimer (2013) argued.

In the words of Paulo Freire (1970), "education functions as an instrument of liberation, or becomes a weapon of domestication" (p. 67). Here, philosophical didactics constitutes itself as a praxis that transcends the pedagogical to question the very matrix of knowledge production, focusing its core on revealing that every educational act is an act of power. Therefore, traditional education, under the myth of neutrality, has operated as a normalization connector (Foucault, 2002), subordinating knowledges in hierarchies that privilege the Eurocentric, the masculine, and the utilitarian.

Faced with this panorama, we consider what Edgar Morin (1990) outlined, from complexity, by unmasking this fallacy, pointing out that "knowledge is a construction crossed by chaos and uncertainty" (p. 43), which allows us to interpret the real, beyond ordering it, to inhabit it from its fractures. This implies a radical turn; that is, replacing the logic of epistemological control (watertight curricula, standardized evaluations) with an "Epistemology of Encounter", where knowledge is co-constructed in dialogue between antagonistic horizons of meaning.

Under this optic, Philosophical Didactics, in its decolonizing aptitude, surpasses questionable appreciations of knowledge contents, dismantling the very matrix of production of the knowable, that radicalized and Eurocentric structure which, as denounced by Aníbal Quijano (2000), turned coloniality into the dark side of modernity.

This act of epistemic insubordination defined by Walter Mignolo (2011) as "decolonial disobedience", demands transgressing the limits imposed by imperial reason, to open educational space to what Bonaventura de Sousa Santos calls "epistemologies of the South"; that is, dependent knowledges, silenced by cognitive violence, that spring from the cracks of abstract universality. In this sense, the task here transcends the pedagogical towards the metaphysical, where one unlearns the extractivist logic of knowledge that reduces the world to a resource, to learn to listen to the murmur of the denied, the excluded, and the impossible.

In this horizon, education transforms into a praxis of the impossible, understood beyond an unattainable utopia, as that which the colonial-capitalist order has declared unthinkable. As Slavoj Žižek (2014) points out, the Real—that which resists symbolically—erupts as a fracture in the possible; Philosophical Didactics, then, constitutes itself as an expanded element of the realizable, an exercise of “radical imagination” that challenges the regimes of feasibility imposed by instrumental rationality. Hence, Paulo Freire’s pedagogy converges with Enrique Dussel’s philosophy of liberation, where educating is uncovering the material conditions that naturalize oppression, but also activating the capacity of subjects to re-exist, to reinvent other worlds. Likewise, the learning context becomes a liminal space, as Homi Bhabha (n.d.) puts it, a frontier where the colonized and the decolonial confront each other in a struggle for meaning, and where the impossible—such as epistemic justice or biocultural reciprocity—is rehearsed in an almost perfect act and order.

Now, this decolonization goes beyond the intellectual plane; it is an embodied revolution, as Frantz Fanon (1961) notes in his work *The Wretched of the Earth*, warning that coloniality refers to something beyond territoriality, alluding to bodies and subjectivities. Therefore, Philosophical Didactics must be a somatic pedagogy, a practice that, following Gloria Anzaldúa (1987), recognizes “border knowledge”, rooted in the wounded flesh of the excluded. In this sense, Achille Mbembe’s (n.d.) critique of necropolitics reveals how certain bodies are marked as disposable under the designs of colonial-modern power; in response, decolonial education becomes a ritual of epistemic resurrection, a political act that recovers silenced memories, knowledges annihilated by cynical reason, and ancestral practices erased from hegemonic records. In this framework, philosophies such as “good living” or “I am because we are” transcend folkloric expressiveness, projecting themselves as radical epistemologies that, from community interdependence and reciprocity with the Earth, crack the possessive individualism of modernity, proposing ontological alternatives where life in its plurality ceases to be a commodity to become a sacred relational fabric.

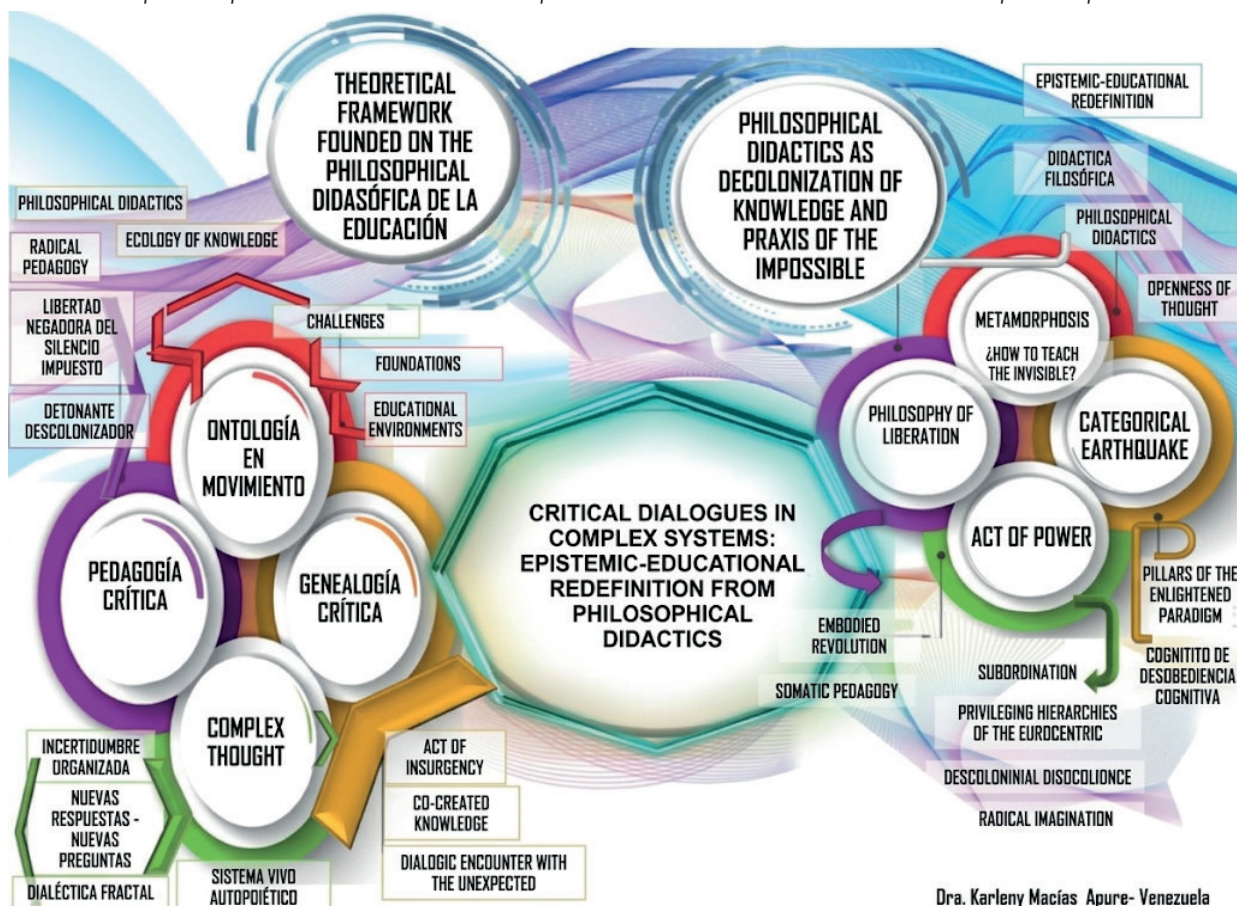
Now, how to teach the impossible? To answer this concern, the mystical dimension of Philosophical Didactics emerges; for Georges Bataille spoke of the impossible as a limit experience, that which overflows utility and the logic of calculation. Meanwhile, educating from this vertigo implies adhering to the right to opacity; that is, rejecting homogenizing transparency and praising the irreducible density of the diverse. In Adorno’s words, it is an act of “negative aesthetics” that, instead of offering answers, cultivates wonder before the inapprehensible. Therefore, the praxis of the impossible transcends idealism; it is insurgent materialism, which Silvia Rivera Cusicanqui (2010) calls the “potency of the small”, in the micro-resistances that crack power from the everyday.

Under this argumentative plane, Philosophical Didactics, in this anagram, is a pedagogy of the fragment; using parody, performance as strategies of situationism and conceptual art to dismantle master narratives. Here, educational Zapatismo merges with Mark Fisher’s capitalist realism (2009), which denounces how neoliberalism has kidnapped the imagination. Ultimately, this Philosophical Didactics is an act of love in the Freirean sense and of danger; love, because only from ethical vulnerability can deep listening emerge; danger, because decolonizing is always a subversive gesture that threatens the privileges of the canon.

As Aimé Césaire (1950) wrote in his *Discourse on Colonialism*, there is no true encounter without the risk of metamorphosis. Thus, educating the impossible is, then, betting on that metamorphosis, a leap into the void where the decolonial is neither a destination nor a place; on the contrary, it is a journey, where Philosophical Didactics reveals itself as the art of navigating uncertainty, of sustaining the question without giving in to the easy answer, of inhabiting the abyss without ceasing to weave, from there, networks of insurgent hope.

Figure 1

Theoretical-philosophical framework on the epistemic-educational redefinition from philosophical didactics



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Source: Own elaboration.

Discussion

Education, in its essence, is a living system, an organism of meanings in perpetual friction, and as such, is condemned to complexity. Edgar Morin warns us that living systems cease to be governed by linearity, opening the field to paradox; where they grow while disintegrating, they order themselves while becoming disordered. Under this logic, Philosophical Didactics, beyond being seen as a method of transmission, is conceived as an exercise of radical listening to the murmur of the multiple. Thus, the learning context, beyond being a container of certainties, is transfigured into a battlefield where temporalities, memories, and futures collide. Now, how to teach in a world that, as Zygmunt Bauman points out, dissolves into liquid before we can name it? The answer lies in the ability to inhabit questions as acts of ethical courage.

The decolonization of knowledge, the backbone of this reflection, more than a benevolent gesture of inclusion, is an insurrection against the ontology of extractivism, an approach that Bonaventura de Sousa Santos summarizes bluntly; knowledge has been instituted as a knowing vacuum cleaner, sucking up knowledges to turn them into inert commodities under the label of "universality." But how to weave in the midst of chaos? From this concern, the central paradox arises; complex systems teach us that disorder is not the enemy, but the fertile ground where the new germinates, a vision supported by Ilya Prigogine's theory of dissipative structures, reminding us that it is in collapse that unprecedented patterns emerge. From this panorama, pedagogy implies embracing uncertainty not as failure, but as potency.

This position was intuited by Paulo Freire when he stated that liberating education faces conflict, because it knows that it is in dialectical tension that critical consciousness is forged. But today, faced with the ecological crisis and the necropolitics described by Achille Mbembe, this tension acquires existential urgency; for it is about thinking the world, and feeling it in the guts, recognizing that knowledge inhabits the mind, but also the wounded body of the excluded, the forgotten rites of indigenous peoples, the silent resistance of those who have been erased from the cognitive map.

However, this task transcends all romanticism; it is deeply uncomfortable, since decolonizing hurts, because it demands confronting epistemic privileges, cognitive habits, the comforts of a knowledge that has been imposed on us, becoming an internalized neurosis. Therefore, Philosophical Didactics must also be an existential therapy, a slow and painful detoxification process. There are no shortcuts, as in mourning; on the contrary, one must go through the fog of denial, the rage of deconstruction, to reach a place of fragile reconstruction.

Consequently, the epistemic-educational redefinition from complexity is undoubtedly a path that, as Eduardo Galeano would say, is made by walking, and by walking it unravels. Therefore, we must visualize the steps, those small gestures of daily rebellion, like Silvia Rivera Cusicanqui's micro-resistances, which crack the walls of power from below, where the moss of the possible-impossible grows.

And it is there, in that fertile humidity, where Philosophical Didactics sows its seeds, not to harvest certainties, but to learn to live with uncertainty, to dialogue with chaos, to finally live education as an act of entry towards a more humble, more interdependent, more alive humanity, because educating, ultimately, allows us to free the present from the chains we carry within; those that made us believe that knowledge is power, instead of understanding ourselves as a fragile and glorious part of a whole that exceeds us. That is true complexity, knowing ourselves, at the same time, insignificant and essential, ephemeral and eternal. And from there, keep walking.

Conclusion

Philosophical didactics, grounded in critique and decolonization, emerges as a robust framework to redefine educational epistemology in complex contexts, driving the transition from hegemonic paradigms towards liberating, plural, and emancipatory approaches, where complex thinking and critical genealogy enhance both pedagogical action and the production of contextualized knowledges.

The proposed model articulates diverse ontological, pedagogical, epistemological, and political dimensions, generating a hologrammatic and systemic vision of education; this allows confronting dominant categories, reconfiguring formative practices, opening dialogue with the unexpected, and favoring processes of educational metamorphosis that amplify critical agency and transformative creativity of teachers and learners.

References

- Anzaldúa, G. (1987). *Borderlands/La frontera: The New Mestiza*. Aunt Lute Books.
- Césaire, A. (1950). *Discourse on Colonialism*. Présence Africaine.
- Dussel, E. (1998). *Ética de la liberación en la edad de la globalización y de la exclusión*. Trotta.
- Fanon, F. (1961). *Los condenados de la tierra*. Fondo de Cultura Económica. https://www.fondodeculturaeconomica.com/libro/los-condenados-de-la-tierra_9786071654519/
- Fisher, M. (2009). *Capitalist Realism: Is There No Alternative?* <https://cajanegraeditora.com.ar/libros/realismo-capitalista/>
- Foucault, M. (2002). *Discipline and Punish: The Birth of the Prison*. Siglo XXI.
- Freire, P. (1970). *Pedagogy of the Oppressed*. Siglo XXI.
- Giroux, H. A. (1988). *Teachers as Intellectuals: Toward a Critical Pedagogy of Learning*. Bergin & Garvey.
- Glissant, É. (1997). *Poetics of Relation*. University of Michigan Press.
- Horkheimer, M., & Adorno, T. W. (1998). *Dialectic of Enlightenment: Philosophical Fragments* (J. Chamorro Mielke, Trans.). Trotta. (Original work published 1944).
- Hooks, B. (1994). *Teaching to Transgress: Education as the Practice of Freedom*. Routledge. <https://www.routledge.com/Teaching-to-Transgress-Education-as-the-Practice-of-Freedom/Hooks/p/book/9780415908085> (Spanish edition: Hooks, B. [2021]. *Capitan Swing*. <https://capitanswing.com/libros/ensenar-a-transgredir/>)
- Lugones, M. (2003). *Pilgrimages/Peregrinajes: Theorizing Coalition Against Multiple Oppressions*. Rowman & Littlefield. <https://rowman.com/ISBN/9780742514585/Pilgrimages/Peregrinajes-Theorizing-Coalition-Against-Multiple-Oppressions>
- Mbembe, A. (2016). *Necropolitics*. Melusina. <https://www.melusina.com.mx/libro/necropolitica/> (Original French version: <https://www.cairn.info/revue-raisons-politiques-2005-3-page-123.htm>)
- Mignolo, W. (2011). *The Darker Side of Western Modernity: Global Futures, Decolonial Options*. Duke University Press. <https://www.dukeupress.edu/the-darker-side-of-western-modernity>
- Morin, E. (1990). *Introduction to Complex Thinking*. Gedisa.
- Nicolescu, B. (1996). *Transdisciplinarity: Manifesto*. Du Rocher.
- Rivera Cusicanqui, S. (2010). *Ch'ixinakax utxiwa: A Reflection on Decolonizing Practices and Discourses*. Tinta Limón.
- Santos, B. de S. (2009). *An Epistemology of the South: The Reinvention of Knowledge and Social Emancipation*. CLACSO.

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