

## **Ecomotricity of planting and caring: a decolonial and ecophenomenological pedagogical framework**

*Ecomotricidade do plantar e do cuidar: um referencial pedagógico decolonial e ecofenomenológico*

*Ecomotricidad del plantar y del cuidar: un marco pedagógico decolonial y ecofenomenológico*

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### **ABSTRACT**

In this paper, we aim to contribute to the conceptual, methodological, and (eco)pedagogical framework of the ecomotricity of planting and caring (EPC) as a specific development of previously formulated ecomotricity and aligned with socio-environmental aspects of food and nutritional security and agroecology. As a secondary aim, we present initial considerations for EPC praxis in different geo-epistemological contexts. We applied a bibliographical review with the dialectical method to organize this basic, theoretical, and exploratory research. Some relevant resolutions highlight the decolonial and ecophenomenological potentials of EPC as an ecopedagogical process based on the praxis of human-environment (human-non-human) inter-actions. The presented framework can serve as a reference for future theoretical and empirical research on the topic and implementation of EPC projects.

**Keywords:** Ecopedagogy. Decoloniality. Ecophenomenology. Critical Environmental Education. Food and Nutrition Security.

### **RESUMO**

Neste artigo, pretendemos contribuir para a estrutura conceitual, metodológica e (eco)pedagógica da ecomotricidade do plantar e do cuidar (EPC) como um desenvolvimento específico da ecomotricidade (formulada anteriormente) e alinhada com aspectos socioambientais da segurança alimentar e nutricional e da agroecologia. Como objetivo secundário, apresentamos considerações iniciais sobre a prática da EPC em diferentes contextos geopistemológicos. Fizemos uma revisão bibliográfica junto com o método dialético para organizar essa pesquisa básica, teórica e exploratória. Algumas resoluções relevantes destacam os potenciais decoloniais e ecofenomenológicos da EPC como um processo ecopedagógico baseado na práxis das interações humano-ambiente (humano-não humano). A estrutura apresentada pode servir de referência para futuras pesquisas teóricas e empíricas sobre o tema e a implementação de projetos de EPC.

**Palavras-chave:** Ecopedagogia. Decolonialidade. Ecofenomenologia. Educação Ambiental Crítica. Segurança Alimentar e Nutricional.

### **RESUMEN**

En este artículo, pretendemos contribuir al marco conceptual, metodológico y (eco)pedagógico de la ecomotricidad del plantar y del cuidar (EPC) como desarrollo específico de la ecomotricidad previamente formulada y alineada con los aspectos socioambientales de la seguridad alimentaria y nutricional y la agroecología. Como objetivo secundario, presentamos consideraciones iniciales para la praxis de la EPC en diferentes contextos geopistemológicos. Aplicamos una revisión bibliográfica con el método dialéctico para organizar esta investigación básica, teórica y exploratoria. Algunas resoluciones relevantes destacan las potencialidades decoloniales y ecofenomenológicas de la EPC como proceso ecopedagógico basado en la praxis de las inter-acciones humano-ambiente (humano-no humano). El marco presentado puede servir de referencia para futuras investigaciones teóricas y empíricas sobre el tema y la aplicación de proyectos de EPC.

**Palabras clave:** Ecopedagogía. Decolonialidad. Ecofenomenología. Educación Ambiental Crítica. Seguridad Alimentaria y Nutricional.

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## INTRODUCTION

The urban-capitalist-western way of life brings many benefits, such as facilitating access to medical care, formal education, science, and cultural diversity. However, it favors the aggravation of several problems that cause poverty, social inequality, exploitation, and the alienation of nature. Among other negative consequences directly or indirectly associated with this predominant way of living and being-in-the-world, socio-environmental problems and the unjust structures of privilege linked to them have become a relevant topic of discussion and critique in the last decades, especially since the critical turn of the 1970s. Although the emergence and unfolding of processes of environmentalization as the incorporation of the environmental discourse by diverse social spheres during these decades (LOPES, 2006), structural changes to the social dynamics that have historically been described as unjust and ecologically problematic face the challenge of the ontological “limits to change” (FAY, 1987) and of the growing global consolidation of “policies of unsustainability” (BLÜHDORN, 2011).

These problems mostly relate to anthropocentrism, also (re)framed as capitalocentrism. According to Kopnina (2019), anthropocentrism derives from the Greek words *anthropos*, or human being, and *kentron*, or center, and reflects a worldview that privileges human welfare over all other aspirations. Capitalocentrism reframes the issue by placing capitalism at the center of development narratives, not all human beings, acknowledging the structures of power that are implicit in the concept of development and that not all human beings will produce the same impact in their inter-actions with the world (GRAHAM; GIBSON, 2006).

Going back to Fay’s description of the ontological “limits to change” (FAY, 1987), educational methodologies focused on intellectually nurturing people away from anthropocentric or capitalocentric (inter)actions with the world have proven insufficient to stimulate a shift in planetary consciousness in the direction of a more ecologically oriented cosmovision (MISIASZEK, 2018; 2020; MISIASZEK; RODRIGUES, 2023a; 2023b). Not only does this “ecological turn” presuppose a rational shift but mainly an affective shift (PAYNE, 2018) expressed as an interconnected triad of ecosomaesthetics-environmental ethics-ecopolitics. According to Blengini and Rodrigues (2019), “ecosomaesthetics” refers to the lived experience of environmental inter-actions and relationships, where the prefix “eco” is determined by a non-anthropocentric disposition, while soma indicates the generation of meanings by the senses. Thus, ecosomaesthetics refers to the bodily generation of meanings with an ecocentric (or non-anthropocentric) disposition.

Emerging as a critique of pedagogies and theories of practice with a disproportionate emphasis on rationality, the ecophenomenological (BROWN; TOADVINE, 2003) notion of ecomotricity (RODRIGUES, 2018; 2019) focuses on how we create and incorporate ecological meanings through movement as we inter-act with nature. Along with other works that have developed ecomotricity in different contexts and within specific ecopedagogical aims (e.g., SERPA, 2023; RODRIGUES, 2019; JESUS, 2018; IARED, 2017; RODRIGUES *et al.*, 2017), this paper will focus on the “ecomotricity of planting and caring” (EPC) as a specific development of previously formulated ecomotricity, also aligned with socio-environmental aspects of food and nutritional security (FNS) and agroecology. Further to the aim of this paper to contribute to the conceptual, methodological, and (eco)pedagogical framework of EPC, it also engages with initial questions regarding ecopedagogical possibilities and limitations of an ecological project based on EPC. Thus, a secondary aim of the paper is to introduce the discussion on how EPC connects to other resources, such as vegetable and flower gardens, for teaching ecopedagogy in different geo-epistemological (CANAPARO, 2009) settings through a process that involves both human and non-human

(earth, plants, animals, minerals, air, climate, etc.) actors in the construction of ecological knowledge.

This research intends to bring a way of discussing themes to meet demands aligned with the Sustainable Development Goals (SDGs), which are “[...] 17 ambitious and interconnected goals that address the main development challenges faced by people in Brazil and around the world. [...] a global call to action to end poverty, protect the environment and climate, and ensure that people everywhere can enjoy peace and prosperity” (ONU, 2015). This research aligns, especially, with SDG 1 (no poverty), 2 (zero hunger), 3 (good health and well-being), 4 (quality education), and 12 (responsible consumption and production). Embracing the SDGs along with the aims of the paper is particularly relevant as we take on the challenge of discussing practical settings of EPC and acknowledge the role of formal education in the construction of a more sustainable world (MISIASZEK; RODRIGUES, 2023a; 2023b), which includes the progression and maturation of processes of curricular environmentalization (RODRIGUES, 2020; 2015; RODRIGUES; PAYNE, 2017; PAYNE; RODRIGUES, 2012).

After briefly describing the methodological nature of this research (basic, theoretical, and exploratory), the first section contextualizes ecomotricity among the histories of environmental discourses, highlighting some particularities of this history in the Global South. In the following section we present the main references of the framework for EPC. The final section is dedicated to introductory considerations for the praxis of EPC as an ecopedagogical project.

## METHODOLOGY

The nature of this qualitative research is basic, which “[...] aims to generate new useful knowledge for the advancement of science without foreseen practical application, involving universal truths and interests” (PRODANOV; FREITAS, 2013, p. 51), and theoretical, “[...] dedicated to reconstructing theory, concepts, ideas, ideologies, polemics, with a view, in immediate terms, to improving theoretical foundations” (DEMO, 2000, p. 20). As for our goals, they are exploratory, as they involve bibliographical and documentary research and dialectic, adapting to the description of research realities from Marconi and Lakatos (2017, p. 51):

We should analyze things as fixed objects but in motion; nothing finishes; it is always transforming and developing; the end of one process is always the beginning of another. Things do not exist in isolation, detached from one another and independent, but as a united, coherent whole. Both nature and society are composed of objects and phenomena organically linked to each other, depending on each other and, simultaneously, reciprocally conditioning each other (our translation from Portuguese).

Before an academic production that is not fully known, it is paramount for the researcher to be clear on the selected criterion for choosing the sources that will be used in the research, especially the keywords that will set the parameters for the elaboration of the limited, yet representative, scope of knowledge about the topic (RODRIGUES, 2007). If the research focuses on scientific sources, it should include legitimate means of scientific knowledge sharing, such as journal articles, academic dissertations, and books (RODRIGUES, 2013). Considering the aims of this research on elaborating the conceptual, methodological, and ecopedagogical framework of EPC, the chosen keywords were

“environmental education”, “critical environmental education”, “ecopedagogy”, “ecomotricity”, and “food and nutritional security”.

As we developed this research during the COVID-19 pandemic, we did not implement a practical execution of the research proposal due to operational and time limitations caused by the low margin of predictability regarding the pandemic. We did, however, elaborate a research proposal considering the possibility of transference to other contexts and settings, with an important note to always acknowledge cultural and socio-environmental (including socio-economic) particularities to avoid idealist generalizations.

## ORIGINS OF ECOMOTRICITY: SOME NEEDED HISTORICAL BACKGROUND

Ecomotricity has its roots in the complex historical context of environmental and educational discourses which, by and large, emerged from environmental education (EE). The beginning of a more ostensive discussion about the need for environmental conservation began very recently in historical terms, from the 1970s onwards. The construction of the environmental movement came up upon the growing perception of an environmental crisis caused by an anthropocentric view of the world and a more global discussion of the scarcity of natural resources, riding the wave of other critical movements for justice of that time (RIBEIRO, 2014).

The burgeoning of the environmental discourse connects to how different actors quickly appropriated this discourse. The rising legitimacy of the environmental discourses eased its incorporation by different actors in social conflicts, a movement described by Lopes (2006) as processes of “environmentalization”. The term is a neologism to designate an internalization of the different facets of the public issue of “environment” that could be noticed by the transformation in the form and language of social conflicts. Along with the different social spheres that appropriated the environmental discourse, such as law, private enterprises, the stock market, the building sector, etc., in education it was initially developed as EE, especially after the first United Nations (UN) environmental conferences in the 1970s.

Over thirty years after the term EE started circulating in UN conferences, Lucy Sauvé (2005) identified and briefly described fifteen currents of EE. She pointed out that some currents have a broader historical background than others, being dominant in the first decades of EE (the 1970s and 1980s), while others are related to more recent developments (from the 1990s onwards). Sauvé (2005) also stated the need to understand how all the currents in her typology coexist, forming a synchronous framework with differences and common overlaps between the currents. As a typology, each of the currents presented by Sauvé considers some assumptions related to dominant conceptions of education and the environment, including main objectives, approaches, and strategies, besides examples or pedagogical models that illustrate each current. She clarified that her descriptions had foundations on her “[...] cultural references, more linked to French, English and Latin American contexts”. Her questions and statements encourage “[...] a critical analysis of the advantages, limitations, and problems associated with each current” (SAUVÉ, 2005, p. 3).

In the Brazilian education sector, EE remains to be a dominant current for teaching and learning in, about, and for the environment, in great measure as a political stance against the now more common education for sustainable development (ESD) and education for sustainability (EfS), the preferred terminologies used by the UN (RODRIGUES, 2013). The critique of expressions linked to sustainability is the unavoidable emphasis on economic development, shading the focus on ecological development. The point of view is supported, for example, by Blühdorn’s (2011) thesis on how we, as a society, have learned to deal with the fact that we are unsustainable. The author points to critical evidence, especially since the



2000s, of an “ecological paradox” where contemporary society boxes itself in “politics of unsustainability”. That happens while many global environmental movements question how our nowadays worldviews and actions are environmentally problematic. In what Blühdorn calls a “post-ecological turn”, we create technological and political solutions to avoid having to deal with a change toward a more sustainable society.

Besides the critique of how ESD and EfS focus on interests that more clearly relate to the needs and wants of the Global North, which also resonates with the decolonial influence of Paulo Freire on Brazilian education, questions are raised as well about the ineffectiveness of educational theories that are too focused on rationality (again highlighting Freire’s influence, here more connected to his ideas on critical pedagogy and meaningful learning). Fay’s work on critical social science (FAY, 1987) discusses how we commonly see resistance to change as an epistemological problem, not giving enough attention to it as an ontological problem. Based on Fay’s thesis on “limits to change”, Rodrigues (2016) highlights some of the challenges for overcoming the gap between the idea of change and actual change:

There is a considerable distance between the thought of a possible change and the practical and effective action of change. Again, resorting to complacency as an explanation for the difficulty of change would be too simplistic. Reflecting on our being-in-the-world already requires a painful exercise, emphasizing the difficulty in questioning naturalized structures. In this sense, the change would imply: (a) particular experiences that would allow us to awaken to issues already imperceptible in our (naturalized) relationships with the world; (b) a leap from the potential questioning of the naturalized structures resulting from these experiences to the effective questioning of these structures; (c) the intrinsic legitimacy of a new way of thinking and being in the world; (d) finally and possibly most challenging, the deconstruction and reconstruction of intrinsic structures that promote changes in my habitus.

Because of the critiques of mainstream environmental currents, different environmental epistemologies emerge for a more suitable adaptation to the regional geo-epistemologies (CANAPARO, 2009) of the South. Rufino, Camargo and Sánchez (2020), for example, present a decolonial EE from a biocosmic perspective based on the path of transversal pedagogies and a critical discussion on sustainable development to potentially contribute to an EE better contextualized to the realities of the Global South. They introduce the idea of “terreexistence” as a form of “re-enchantment” of EE that is detached from the capitalist ideals of the New World, thus, a theory from *El Sur* (The South).

Another meaningful environmental theory from the South is “ecopedagogy”, originally designed to have a more oriented tendency toward a dialogic approach based on Paulo Freire’s pedagogy and philosophy (GUIMARÃES, 2016). Having its origins dated back to the beginning of the 1990s, especially through the work of Francisco Gutiérrez and Cruz Prado, ecopedagogy was based on education as praxis, with meaning in everyday life, and guided towards a more just society in which the repressive and stratified processes prevailing in the globalized world could give way to planetary citizenship based on respect for the various forms of life on the planet (GUTIÉRREZ; PRADO, 1999). The understanding and practice of ecopedagogy involve accepting a process of disillusionment related to deconstructing a naive view of EE so it can become a more effective means of creating ecological habitus (CARVALHO, 2012). Contrary to the multifaceted EE (remembering Sauv  s’s fifteen current typologies written almost two decades ago), ecopedagogy would have the advantage of being more radical in its aims and propositions, having one clear reference as central inspiration in the lifework of Paulo Freire (for more on how this unfolds in terms of theory and propositions of action in comparison to EE, see DICKMANN, 2022).

In a nutshell, in comparison with the ideals and propositions of EE, ecopedagogy similarly advances the reflection on the society-nature relationship in its multiplicity of aspects but is much more radical in “[...] weaving a scathing critique of the current unsustainable socioeconomic model” (DICKMANN, 2022, p.7). Another recent development linked to ecopedagogy’s more radical critique of the current socio-environmental model is Prado Rojas’s concept of *cuidadanía* (caring citizenship) (cited by DICKMANN, 2022), a direct critique of the “bourgeois concept” of citizenship that, according to the author, does not represent nor deal with the contemporary critical approaches to capitalism and its unsustainable model of life, production, and consumption.

Also having Paulo Freire as one of its primary references (RODRIGUES; GONÇALVES JUNIOR, 2009), “ecomotricity” appears as another environmental theory from the South. In addition to sharing the Freirean ideals of ecopedagogy, ecomotricity is deeply inspired by Merleau-Ponty’s phenomenology of perception and Manuel Sergio’s science of human motricity revitalized through Brown & Toadvine’s (2003) and Tim Ingold’s (2000; 2011) ecophenomenological postulations (for a more detailed account on the philosophical inspirations of ecomotricity, see RODRIGUES, 2018). Based on the premise of the science of human motricity where all meaning is created in and through our corporeal movements as actions, relationships, and formations with-the-world (SERGIO, 2003), ecomotricity focuses on how we create and incorporate ecological meanings through different kinds of movement as we inter-act in distinctive ways with nature (RODRIGUES, 2018).

By looking more specifically at particular contexts of body-environment inter-actions, the proposition of ecomotricity is deeply relational, understanding that different kinds of movement in nature will set distinct possibilities and limitations for ecological engagement (going back to the interconnected triad of ecosomaesthetics-environmental ethics-ecopolitics). For example, the same trail in the forest (geographically speaking) will be lived as a very different environmental experience (phenomenologically speaking) by a trekker, a runner, a mountain biker, a motor biker, a hunter, a researcher, a tourist, a touristic guide, a native, etc. Each of these lived experiences will create a different environmental narrative embracing personal histories (of humans and non-humans), histories of place, and social imaginaries of previous experiences of being in nature.

Considering these theories (briefly) contextualized within the histories of educational and environmental discourses and with an emphasis on the theories of the Global South that more radically question current capitalist-centered socio-environmental models and consolidated structures, the choice of ecomotricity to develop a framework focusing on the ecopedagogy of planting and caring (EPC) is justified, mainly, by its ecophenomenological inclination. In some instances, the act of caring still perpetuates symbolic structures of power linked to anthropocentrism and to the patriarchy, where the stronger or more evolved (typically associated with humans, males, and colonizers) protects and looks after the weaker and more primitive (pointing out that these characterizations of stronger-weaker and more-less evolved come from colonial structures of power and does not reflect, in any way, the opinion of the authors of this paper). The sense of caring intended by EPC goes both ways, where both plants and humans benefit from the love and empathy nourished in the relationship. In that sense, we can (re)imagine the role of plants as agents that can promote care, as they directly influence the well-being of other beings, including humans. Ecomotricity offers a conceptual, methodological, and ecopedagogical foundation for challenging anthropocentric (capitalocentric; patriarchal) colonizing structures of thought and action associated with how we inter-act with nature, opening a greater possibility for a decolonial framework for a pedagogy of planting and caring.

## ECOMOTRICITY OF PLANTING AND CARING: PLANTS AS TEACHERS

Essentially, the bases of EPC are (a) Caring as a fundamental element of meaningful learning; and (b) the ecophenomenological conception that plants have agency as teachers. The importance of affectivity in education was one of the strong points of Freire's pedagogy, especially effectivity expressed as love and caring (for a more specific account of affectivity in EE, see PAYNE, 2018). We can achieve meaningful education through experience conceived as something that we can directly relate to within our life-world possibilities (LAROSSA BONDÍA, 2002), not through abstract knowledge that is "deposited" as if individuals were empty vessels (FREIRE, 2021). Caring is a powerful agent for linking education and experience as it connects the readings of the word (written knowledge) and the readings of the world (knowledge from experience) (FREIRE, 2022). Thus, caring acts both as an anthropo-cosmological and a political-pedagogical force in education (PRADO ROJAS, 2020, cited by DICKMANN, 2022). By focusing on the potential emergence of ecological experiences (ecosomaesthetic-environmentally ethical-ecopolitical), ecomotricity echoes ecopedagogy as the practice of caring for all of life and in its multiple manifestations (DICKMANN, 2022).

Moving to the second foundation of the framework for EPC, the ecophenomenological conception that plants have agency as teachers is part of a more elaborate concept of the agency of the non-human commonly associated to indigenous cosmovisions (see, for example, ACOSTA, 2016; LE GRANGE, 2018) and more recently revitalized in post-humanistic and new materialist theories (RODRIGUES, 2018; 2020; RODRIGUES *et al.*, 2020). Iared and Hofstatter (2022), for example, focus on this paradigm shift discussing the educational agency of the SARS-CoV-2 during the COVID-19 pandemic in a paper that directly dialogues with the movie "My Octopus Teacher", launched by Netflix in 2020. Regarding our more specific focus on EPC, the work by Carvalho, Steil, and Gonzaga (2020) discusses the agency of plants as teachers and the possibility of thinking about education from a more-than-human perspective.

Challenging the dominant modern perspectives of rationality and learning as exclusive human traits, Carvalho, Steil, and Gonzaga (2020) explore situations where humans attribute to plants a teaching role, especially looking at examples from urban shamanic rituals that took place in Porto Alegre, in the South of Brazil. According to the authors, the human actors that oversaw the rituals were guardians or facilitators, rather than teachers or masters. The leadership was occupied by the "power plants" in a relationship that was built under the values of ecology and indigenous knowledge (CARVALHO; STEIL; GONZAGA, 2020).

Using this empirical example, the authors discuss how being open to understanding different ways and abilities of teaching and learning, including those that involve more-than-human possibilities, is key in striving away from the limited notion that there is only one (right) way of learning. Even among human beings learning has for centuries been predominantly associated with rational learning (thinking through reason), whereas other forms of learning more directly related to feelings, perceptions, traditional or popular knowledge, arts, and so on have been (and in great measure still are) relinquished or belittled. Thus, learning-with plants through a more-than-human (ecophenomenological) perspective, as centrally proposed by EPC, not only opens possibilities for the creation of ecological meanings in shared life experiences between humans and non-humans, but also challenges dominant paradigms of teaching and learning that have a predominant focus on rationality.

The ecological possibilities of EPC as ecopedagogy can also contribute to advancing food and nutritional security (FNS). According to Gomes Júnior and Almeida Filho (2010), FNS is a socio-ethical principle that guides national public policies, including those linked to some of the UN's SDGs, especially those highlighted in the introduction of this paper.

Building on the right to food already stated in the Universal Declaration of Human Rights (UN, 1948), the concept of food security was officially expanded at the 12<sup>th</sup> UN Food and Agriculture Organization World Conference, 1989, defining it as follows:

The ultimate goal of world food security is to ensure that all people have, at all times, physical and economic access to the elementary foods they need. [...] Food security must have three specific purposes: to ensure adequate limited production; to achieve maximum stability in the flow of such food; and to ensure access to food for those who need it (MENEZES, 2001, p. 55, our translation from Portuguese).

Seven years later, in the 1996 World Food Summit (WFS), heads of state and members of government reaffirmed the right of everyone to access safe and nutritious food, assuring their commitment to making sustained efforts to suppress hunger in all countries. The central goal, directly linked to the UN's Millennium Development Goals, was to halve the number of undernourished people and eradicate hunger by 2015. Unfortunately, we did not achieve this goal. The new elements incorporated into the concept of food security in the 1996 WFS were quality (physical, chemical, biological, and nutritional), the right to information, cultural diversity, and the sustainable use of resources. Today, the terminology or concept of FNS is accepted by most countries and civil societies and has served as a structural tool for numerous anti-hunger programs and projects. Its basic structure comprises four core components – availability, access, stability, and consumption, all complemented by other sub-components (GOMES JÚNIOR; ALMEIDA FILHO, 2010).

As the concept of FNS evolves, the already well-established premise of the right to food as availability of food more and more aggregates discussions of the quality of food, not only within the more biological and physiological parameters established in the 1996 WFS but also increasingly linked to ideals of food sovereignty that are focused on the politics of production, distribution, and consumption of food, emphasizing local food economies and the perception of food as cultural (historical; ancestral) identity (MA RHEA, 2017; 2018; LLORO, 2021). The ecopedagogical framework of EPC can more directly contribute in this trend: The ecophenomenological inclination of EPC drives critical questioning of how the lives of humans and the lives of plants are inter-related, including plants that are part of human biological and cultural eating habitus; and the decolonial inclination of EPC raises questions about sensitive issues related to the politics of how and where food is produced and consumed, directly linking the discussion to the broader concept of socio-environmental justice as food is connected to history, culture, and ancestry.

The elaboration of the quality of food is a central focus of agroecology. Modern models of agricultural production are growingly guided by monoculture, the use of transgenic plant species, deforestation, and the use of synthetic fertilizers and pesticides. In addition to commonly compromising the conservation of biodiversity, soil fertility, and the quality of water resources, this model of agricultural production aimed predominantly at maximizing production and profit (thus, casting out the preservation of ecosystems) typically promotes dependence on highly polluting inputs with toxicological effects to farmers and consumers (HOLANDA; GOMES, 2014). On the other hand, organic agriculture is a system of management practices that more equally weighs the importance of food production and environmental conservation, typically opposing the use of components that are not naturally part of the rural environment and prioritizing practices of minimal environmental impact, reducing the use of fossil fuels and other non-renewable resources (SOUZA; HOLANDA, 2014).

Social indicators are also a significant focus of agroecology, as they “[...] promote a rescue of traditional knowledge and its hybridization with modern scientific knowledge in a



mixture that provides the environmental and sociocultural strengthening of communities and agroecosystems” (MARTINS *et al.*, 2021, p. 335). The opposition of agroecology to modern models of agricultural production and its direct practical and ideological association with indigenous practices (MARTINS *et al.*, 2021) aligns with how EPC can contribute to the discussion and practice of a decolonial FNS, including the ecosomaesthetics-environmental ethics-ecopolitics of planting and harvesting, and plant-based food marketing and consumption. This discussion includes ways on how the concept of “farm-to-table” food practices can ecopedagogically favor decolonial and agroecological learning processes of what food is (or can be) in different geo-epistemological contexts, ways it can be cultivated, and what we can learn from its power and agency (CARVALHO; STEIL; GONZAGA, 2020).

Summing up, EPC is a specific elaboration of how ecological meanings can potentially emerge from the inter-active movement or action of planting and the sense of (mutual) caring that follows. In addition to the ecopedagogical potential of the experience, EPC can be generative in collaborating with the development of FNS, especially through a decolonial and ecophenomenological perspective that aligns with the principles of agroecology.

## CONSIDERATIONS ON THE PRAXIS OF EPC

The volume of research highlighting the difficulties of implementing educational and environmental pedagogies, including schools, is extensive (for a more elaborate discussion on this topic, see RODRIGUES, 2022a; 2013; 2015). The EPC framework tackles some of these difficulties: (a) Being highly practical, it tackles the problem of theoretical abstractivism (PAYNE, 2020) and can be generative in diminishing the theory-practice gap that is considered to be one of the most historically persistent challenges of EE, including in school settings (RODRIGUES, 2020; RODRIGUES *et al.*, 2020); (b) being grounded on local human-plant relationships, thus, relating directly to the daily routines of those involved, it offers good conditions for meaningful learning (FREIRE, 2021), tackling the daunting issue of idealisms in EE (RODRIGUES, 2022b); (c) by developing long-term projects, such as the construction and maintenance of vegetable and flower gardens, including inside schools, it tackles problems associated to short-termed EE projects that have no continuation which can also be very discouraging for EE as a process (RODRIGUES, 2022b); gardens also open possibilities for the involvement of a large number of people of the surrounding community, be it in a school or in a neighborhood, in a collective and cooperative movement of caring for something which becomes part of the local ethos and its daily reality(ies) of place, a significant aspect of ecopedagogical processes (RODRIGUES, 2010); (d) focusing on a decolonial and ecophenomenological approach, it challenges the perpetuation of mainstream imaginaries of environment, nature, development, etc. that are typically associated to anthropocentrism (capitalocentrism; patriarchy) and that remain to be one of the main challenges to overcoming modern environmentally problematic models and social structures (MISIASZEK; RODRIGUES, 2023a; 2023b; ARENAS, 2021).

Even though people and institutions can develop EPC projects in several different contexts and linked to an array of different aims, the main potential targets include schools and neighborhoods where rates of food insecurity are higher, which can be identified by looking at the Brazilian Food Insecurity Scale developed by the Brazilian Institute of Geography and Statistics (IBGE, 2014). In any case, EPC projects start from a base in common: Its conceptual, methodological, and ecopedagogical framework from ecomotricity, ecopedagogy, FNS, and agroecology. From this foundation, each project will have its own

geo-epistemological signature as it embraces the particular needs of the local context. Rising as a collaborative (collective and conjunct, as suggested by GUIMARÃES, 2004) elaboration involving as many individuals from the community as possible, the project will embrace personal histories and histories of place, which will merge in “new” collective representations around the idea of human-environment relationships, particularly linked to planting and caring. The word “new” takes on quotation marks as collective representations will always be greatly influenced by previous social imaginaries, thus, never being completely new (RODRIGUES, 2020; RODRIGUES *et al.*, 2020).

Given all the concerns related to the current situation of our planet in all its dimensions and the small or slow practical effectiveness of environmental laws and goals set by international organizations, it is relatively easy to undertake a cynical and bitter perspective about how much individual and collective efforts are worth in the sense of trying to provoke an environmental, social, cultural, and spiritual turn in our planetary trajectory. With the growing risk of allowing ourselves to be seduced by eco-pessimism and environmental and existential anxiety, among other symptoms of hopelessness, in front of a deep sense of social paralysis, Rodrigues and Arenas (2022) suggest that we should strive to replace our fear, dread, and fatalism with courage, joy, justice, and empowerment, conditions habitually met by hands-on experiences of practice. EPC offers a framework that often means getting your hands dirty while sharing the experience of planting and caring. Hopefully, this paper can be generative in inspiring empirical research on the topic and, more importantly, the development of EPC projects in different geo-epistemological contexts.

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