

Educating through (Re)connection: Contributions of contemplative sciences and meditative practices for a new mindset in education



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Jorge Moreira

PhD Candidate in Sociology – University of Coimbra; Researcher at the Centre for Functional Ecology - Science for People & the Planet, Coimbra, Portugal

Patrícia Araújo

PhD, ISLA Santarém – Research and Development Unit, Santarém, Portugal

Mariana Pereira

MSc
Master's Degree in Educational Sciences - FPCEUP, Porto, Portugal
Qualifica Center - Professional and Technological School of Profensino

Andreia Melo

Degree in social education - ESE, higher school of education, Porto, Portugal

ABSTRACT

Deep and meaningful learning experiences are a privilege for human beings and nowadays, we live in a complex, rich, and full of learning

opportunities. Education is evolving in many ways, and new generations of youngsters are writing new paths to the future of humankind but still, we need a new perspective that ends the divisions between Nature and Humanity that have occurred in recent decades, and reconnects us with Nature again, promoting a sustainable mindset at all levels of education, and using transdisciplinary and innovative approaches. In this paper, using literature review and essayistic reasoning, influenced by future research methods, we envision a possibility of contemplative science and meditative practices at the core of this fundamental shift in education. We will analyze the potential of meditation, with some focus on the recently constructed research by the science called nature-based mindfulness, to dilute the Human/Nature dichotomy and promote a global mindset and sustainability and argue that this should be a unifying path for all professionals at all educational levels and in all educational interventions, formal, non-formal or informal. We finish proposing guidelines for the integration of contemplative sciences and meditative practices connected to existent frameworks of sustainable mindset.

Keywords: Education, Mindset, Sustainability, Meditation, Contemplative sciences.

1 INTRODUCTION

By connecting with the world more than humans, we can go as far as we want with our minds and our senses. We can pay attention to the world of animals, plants, fungi, microbes, forests, oceans, the climate, Gaia, the sun, the solar system, the Milky Way, and countless galaxies beyond our own. We can reach the source from which all of nature comes (Sheldrake, 2018, Chapter 8)

In this so-often-called VUCA world (volatility, uncertainty, complexity, and ambiguity) a new way of thinking and implementing educational interventions is imperative. We are educating and forming the human beings of the future, and therefore, the thinkers, workers, and politicians of the future and, consequently, the societies of the future.



In this article we defend as a basis that contemplative sciences and meditative practices can contain the formula for a change in the way of educating humans for the society of the future, where we expect a society with a more real vision of the world, ecosystemic, connected and where all beings are considered regardless of the country, culture, or scientific area in which they are being educated.

When we are born, we are exposed to the human condition, to the condition of learning, whether in our relationship with others, with the world that surrounds us, whether as a product of the culture in which we are inserted, or as a producer of culture.

A process of construction of one's own and in which it is built by others, in the unfinished and indispensable movement that is Education.

As an asset of a society, a member of a family, of an already existing structure, but with the capacity for a new interpretation provided with meaning and uniqueness. Therefore, it acts in the bosom where it is inserted as a 'social subject' as referred to by Bourdieu (1989) or as a "son of man" according to Charlot (1997), the human condition that makes it a subject closely linked to others, inhabitants of the world and transformers of that same world.

Currently, with the legacy of the twentieth century, we are witnessing transformations that have led us to changes in paradigms, of ways of being and of living, and, somehow, we have moved away from Nature and the consciousness of inhabiting a space with many other beings. Nature has always played a central role in human life. After all, we are Nature, theologically and scientifically.

Nature is apprehended as the divine work or divinity in itself (Moreira, 2019). Holistic science, like ecology, replaces the human being in interaction and interrelationship with the other natural elements.

Thus, we are a knot in the web of life "an ancient idea which has been used by poets, philosophers, and mystics throughout the ages to convey their sense of interwovenness and interdependence of all phenomena (Capra, 1996, pp. 34–35).

We know that we have arisen from Nature, which provides us with the vital services. We also know we have evolved in the bosom of Nature, and we can continue the evolutionary path towards something surprisingly unheard of if we still have the dexterity to save ourselves from the suicide caused by our neglect of nature.

However, perhaps in the last century, it is as if the human being had 'detached' himself from Nature and created the Human/Nature opposition, as if Humans did not belong to the ecosystem or, in some way, wanted to be sovereign or owner of it.

The ecological crisis, which includes the climate crisis, already has significant impacts on Nature and Humanity, e.g., loss of habitats and biodiversity, contamination of environments, ocean acidification, polar melting, extreme weather events, prolonged droughts, famine, and damage to infrastructure and the economy. The scientific community leaves serious warnings about the future,



displaying scenarios of climate and socio-ecological chaos, if there is not a significant change in the course of policies and practices that impact the Environment (IPBES, 2019; IPCC, 2022; Ripple et al., 2017).

In the effort to change this course, there has emerged at the highest level (e.g., ONGA, EU, UN) the urgency to implement solutions that bring humans closer to Nature, aspiring to sustainable, regenerative, and healthy forms of relationship, e.g., UNEP (2021).

In this article, from a review of the literature and from an essayistic, critical, and, at the same time, aggregator of multiple approaches and sciences, we launch proposals based on meditative practices and contemplative sciences for a reconnection with the ecosystem, solutions for possible practices with children and adults, and the richness that informal and transversal practices as a contribution to a connection and conscious education.

We will analyze the potential of meditation as a whole, with some focus on meditation in Nature in general and, in a more scientifically researched way – nature-based mindfulness –, as a way to dilute the Human/Nature dichotomy and promote a global mindset and sustainable and argue that this should be a unifying path for all professionals at all educational levels and in all educational interventions, formal, non-formal or informal.

1.1 THE UNIVERSE AS A WHOLE AND THE CONNECTION OF THE HUMAN WITH NATURE

To have a human rapprochement with Nature is necessary to realize what we are talking about when we refer to Nature and contact with Nature. In the first case, the concept of Nature, presents in a broad perspective,

“the spatial and temporal of the cosmos, as well as fecundity and birth, potentiality and existence, the visible and the invisible, the beginning and the end, the perennial and the ephemeral, the manifestation and the forces behind it, matter and spirit, harmony and chaos, beauty and greatness, food and renewal, raw material and wild nature, the source of all energies and consciousness” (Moreira, 2019).

In short version, it is the cosmos itself, and the Earth, it is all that exists, 'Gaia', the microorganisms up to the garbage produced by humans. Nonetheless, the conception of Nature is used today more as a general reference to the domain of wild animals and plants, as well as rocks, forests, mountains, rivers, lakes, glaciers, oceans, atmosphere, soils, ecosystems, and other natural elements. "to essences unchanged by man" (Emerson, 2001, p. 16).

In the second case, contact with Nature is defined as a stable state of consciousness that comprises cognitive, affective, and empirical symbiotic traits that reflect, through consistent attitudes and behaviors, a sustained awareness of the interrelationship between the self and the rest of Nature (Zylstra et al., 2014).



Those who frequently contact with Nature are not alien to the experience of immersion and the range of benefits that surround them and enter through the body, giving rise to certain sensations, emotions, and thoughts that transport them to feelings and deep consciences that the commonplace tasks in the city do not allow.

Often, feelings of well-being, of positive emotions, of feeling that one is alive, concerning kinship with other lives more than humans, and of belonging to something greater than us, which is Nature, are reported. This contact allows us to awaken to a deeper reality, that we are part of this world, being a support for a more intentional, rewarding, and meaningful life (Zylstra et al., 2014).

MacKerron and Mourato (2013), show that happiness levels are higher in natural environments.

Frumkin et al. (2017) present us with a compilation of several studies that present physical and psychological benefits of contact with Nature and that is found in a complementary and adapted form in Table 1.

Table 1. List of some of the scientific research that documents the benefits of Exposure to Nature According to Frumkin et al. (2017).

Health/wellness benefits	References
Stress reduction	(Berto 2014; Fan et al., 2011; Nielsen & Hansen 2007; Stigsdotter et al. 2010; van den Berg & Custers 2011; van den Berg et al., 2010; Ward Thompson et al., 2016)
Improved sleep quality	(Astell-Burt et al., 2013; Grigsby-Toussaint et al., 2015; Morita et al., 2011)
Reduction of depression	(Astell-Burt et al., 2014c; Beyer et al., 2014; Cohen-Cline et al., 2015; Gascon et al., 2015; Kim et al., 2009; Maas et al., 2009b; McEachan et al., 2016; Nutsford et al., 2013; Sturm & Cohen 2014; Taylor et al., 2015; White et al., 2013)
Reduced anxiety	(Beyer et al., 2014; Bratman et al. 2015a; Maas et al. 2009b; Nutsford et al. 2013; Song et al. 2013; Song et al. 2015)
Greater happiness, well-being, and life satisfaction	(Ambrey 2016; Fleming et al. 2016; Larson et al. 2016; MacKerron & Mourato 2013; Van Herzele & de Vries 2012; White et al., 2013)
Reduction of aggressive behaviors	(Bogar & Beyer 2016; Branas et al. 2011; Kuo & Sullivan 2001a, b; Troy et al. 2012; Younan et al. 2016)
Reduction of ADHD symptoms – attention deficit hyperactivity disorder	(Amoly et al., 2014; Faber Taylor et al., 2001; Faber Taylor & Kuo 2009; Faber Taylor & Kuo 2011; Kuo & Faber Taylor 2004; Markevych et al. 2014b; van den Berg & van den Berg 2011)
Increased prosocial behavior and social relationships	(Broyles et al., 2011; Dadvand et al., 2016; de Vries et al., 2013; Fan et al., 2011; Holtan et al., 2015; Home et al., 2012; Piff et al., 2015; Sullivan et al., 2004)
Low blood pressure	(Duncan et al., 2014; Markevych et al., 2014a; Shanahan et al., 2016);
Improvement of postoperative recovery	(Park & Mattson 2008; Park & Mattson 2009; Ulrich 1984)
Improvement in childbirth	(Dzhambov et al. 2014)
Improvement of heart failure	(Mao et al., 2017)
Improvement of children's cognitive and motor development	(Fjørtoft 2001; Kellert 2005)
Improved pain control	(Diette et al. 2003; Lechtzin et al. 2010; Han et al. 2016)
Reduction of obesity	(Bell et al. 2008; Cleland et al. 2008; P. Dadvand et al. 2014a; Lachowycz & Jones 2011; Sanders et al. 2015; Stark et al. 2014)



Reduction of diabetes	(Astell-Burt et al. 2014a; Bodicoat et al. 2014; Brown et al. 2016; Thiering et al. 2016)
Improved vision	(French et al. 2013; Guggenheim et al. 2012; He et al. 2015)
Improvement of the immune system	(Li et al. 2006; Li et al. 2008a; Li et al. 2008b; Li et al. 2010; Li & Kawada 2011)
Improvement of the general state of health in adults	(Brown et al. 2016; de Vries et al. 2003; Kardan et al. 2015; Maas et al. 2006; Maas et al. 2009b; Stigsdotter et al. 2010; Wheeler et al. 2015)
Improvement of the general condition in people who have survived cancer	(Ray & Jakubec 2014)
Improvement of the general condition of children	(Kim et al. 2016)
Reduction of mortality	(Coutts et al. 2010; Gascon et al. 2016b; Hu et al. 2008; James et al. 2016; Takano et al. 2002; Villeneuve et al. 2012)
Improvement in the conditions of patients suffering from asthma and allergies	(Andrusaityte et al. 2016; Dadvand et al. 2014a; Fuertes et al. 2014; Fuertes et al. 2016; Lovasi et al. 2013; Lovasi et al. 2008; Ruokolainen et al. 2015)

In children, prolonged contact with natural environments profoundly and positively affects their development, reduces attention deficit disorders, and improves confidence, cognition, and self-control (Assadourian, 2017).

We speak of a return to the origin, as beings that emerge from Nature, in communion with the notion of "Earth-Homeland" as Morin tells us. And, therefore, the emergence of (re)learning to "be earthly being", to understand and behave intrinsically the "anthropological consciousness" that deals with the recognition of unity within diversity; of "ecological consciousness" as cohabitants of the biosphere, recognizing this same complementary link in an egalitarian relationship and not of superiority; the "earthly civic consciousness" that refers to responsibility and solidarity with the children of the Earth; of the "spiritual awareness of the human condition" that encompasses the capacity for thought "and that allows us, at the same time, to inter-criticize, self-criticize and to inter-understanding" (Morin, 2002, p.81).

It seems, in some way, to lead us to a long-term conception of the effects of education according to this perspective, in which the current compartmentalized visions unite for the increase of reflection and understanding, leading to a conscious multidimensionality, and questioning about our presence here, as an individual in a society, as a being of Nature and in Nature.

It is not uncommon to observe the attention so naturally present in children in their outdoor activities, in contact with plants and animals, in the curiosity and need to learn and apprehend realities different from their own. Our aim here is to propose to remember this process, intentionally and consciously, in children and adults, so that, in the long term, citizens of the society of the future have been educated in this vision of the cultivation of 'whole attention' through of meditative practices, so that they can take this lens to all areas of their lives.

Several works present interesting proposals to explain the effect that contact with Nature has on the human being. Biophilia – which can be explained as the love for life, for other species – is the



human impulse to associate with other forms of life, such as a kind of innate emotional affiliation with Nature (Wilson, 1984).

For the authors, this has biological, adaptive, and dependency explanations for the natural environment. The conservationist Aldo Leopold refers to a consciousness (developed in contact with Nature) that looks at other living beings as "fellow-voyagers with other creatures in the odyssey of evolution" (Leopold, 2008, p. 112).

Other researchers allude to some affinities with certain habitats (e.g. savanna and forest) because these have provided better conditions of survival, reproduction, and well-being to our ancestors (Falk & Balling, 2010; Han, 2007; Orians & Heerwagen, 1992). There is also the fact that some microorganisms exist in the soil, such as the bacteria *Mycobacterium vaccae*, stimulates the production of serotonin, having a relaxing effect and a feeling of happiness (Lowry et al., 2007). In addition, many natural environments are rich in plant-derived volatile organic compounds and negative ions that have benefits for physical and mental health (Franco et al., 2017).

There is also a spiritual perspective, which perceives Nature as sacred (Vaughan-Lee, 2013a). Whatever the explanation, some therapies use animals, plants, and natural environments in their treatment.

For example, autistic children present good therapeutic results when submitted to therapies that involve contact with some species of animals (Katcher, 2002). In Japan, there is a practice of 'forest bathing', the *Shinrin-Yoku*, with many studies that demonstrate its various valences, with a special focus on stress reduction (Hansen et al., 2017).

Lately, we have received several reports of doctors prescribing contact with Nature as a way to treat their patients (e.g. Dockrill, 2018).

If the simple practice of contact with Nature already reports immense benefits, the combination of the practice of controlling attention and its intentional self-regulation (this being the broadest and broadest definition of meditative practice), reports many other benefits which we will refer to later in this paper.

2 EDUCATION FOR THE RECONNECTION AND ECO-REGENERATION

We reflected on the power of simple exposure to nature, which is well documented in scientific research (Djernis et al., 2019). The authors it further conducted a Systematic review and meta-analysis on the effects of nature-based mindfulness, in research involving, in total, 2990 participants and concluded that the overall combined psychological, physiological, and interpersonal effects were statistically significant, and Moderation analyses showed that natural environments characterized as forests/wild nature obtained larger numerical effects than environments characterized as gardens/parks, as did informal mindfulness compared with formal mindfulness.



However, with a few rare pedagogical exceptions, the school has moved away from Nature – classrooms closed in four walls, the absence of natural environments on school campus, and the teaching of natural elements is done through a virtual screen, away from sensory reality.

In a complementary way, education has focused on technoscientific knowledge, alienated from a comprehensive ethics and ecological reality, and promoted the idea that Nature is a set of resources to be indefinitely exploited and transformed into goods, feeding an extractive economic logic, whose paradigm of efficiency and infinite growth contrasts with the reality of a living and finite planet (Moreira et al., 2020).

The proof of this is the finding of a general empathy with the natural world that children have when entering school and the utilitarian, anthropocentric, and 'speciesism' posture when they leave it and insert themselves as adults in the labor market or as leaders of companies and politicians (Moreira, 2019).

Furthermore, 'Speciesism', being is the human-held belief that all other animal species are inferior, especially to humans, involves teaching children from a small age, that we deserve to kill animals and that we have the right to do it because we are superior. 'Speciesistic' thinking has invaded all levels of Education.

Trained as "hunters", in the words of the sociologist Zygmunt Bauman (2007), we live in Liquid Times, in which we either become part of the 'hunt' or run the risk of being excluded from it when embarked upon and entangled in seemingly utopian hopes, when imbued with perspectives other than competition, the 'having' to be, to produce meaning.

This idea of having to 'do something' or 'produce something' to 'be someone' invaded education. Contemplative leisure is despised by most. Creative and creative leisure is teased by many. We don't educate citizens, we educate and train blind, acritical, human workers...

Throughout the school cycle, students are trained to play roles in society, without developing the reflective and ethical capacity, the spirit of critical thinking, and the ability to understand the complexity of the phenomena with which they interact (Moreira et al., 2020). To aggravate the problem, the language of the curricula, even those of environmental education, suffered a general instrumentalization, which further distances the student from the ecological reality and from any empathic content that the original language may contain, e.g. the rivers began to be designated by water resources, Nature by natural capital, the forest by fuel or wood.

So what is the purpose of education? If in the past the main objective was school massification, nowadays, is it not time to take the next step, towards an education centered on being, starting from individuality to the whole and not the other way around? With an awareness of the whole, of the sharing of life, of the world, of resources? Starting from the example of Maslow's pyramid, it is possible to make an analogy about educational needs:



Figure 1. A proposal of a new pyramid for educating for a mindset of connection through the lens of the complete Abraham Maslow's pyramid and inspired by Urie Bronfenbrenner Bioecological Theory

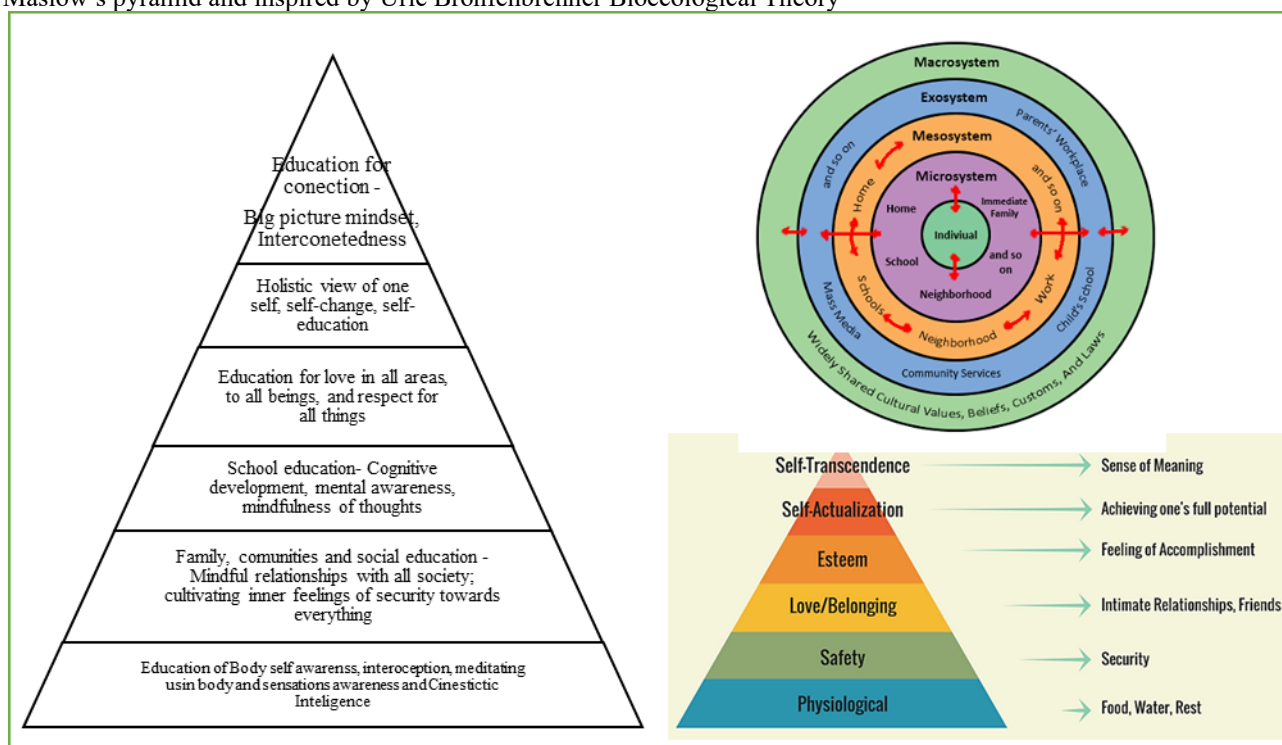


Figure 1 presents a first draft of a reinterpretation of this research team (the pyramid on the left), kind of our Ecosophy since we are trying to substantiate a philosophy of ecological harmony or equilibrium (accompanied with Maslow's Original Pyramid on the right bottom corner and Bronfenbrenner's View on the top left corner).

Similar to Maslow's Pyramid (1960), the 'real' latest version which included 6 dimensions, was well explored by Koltko-Rivera (2006) and we melted the ideas of Urie Bronfenbrenner (1979) and his bioecological view.

In Maslow's Pyramid, we find a classical framework that explains that we grow from basic needs satisfaction to superior needs. This seems the perfect moment in human history to grow into self-transcendence.

By transposing this conception to the specific need for new mindsets for education, we understand as a basic need in the life of each child the importance of effective relationships within the family, since these constitute the basis of the formation of the individual and dictate, most of the time, the relationship with oneself, the vision of oneself in the world. Family affective relationships influence all others throughout life.

It advances to the relationship with others, outside the family, in which the child knows himself in the interaction with peers, with other adults, with a view to the development of social capacities, acceptance, and relationship with difference.



School education allows general knowledge from the development of analytical thinking. However, if there is no balance between the two previous phases, the work of mental and social development can be compromised and consequently in the relationship with knowledge. The process of learning involves a set of factors that can be conditioned by the non-satisfaction of strong and secure affective bonds.

Educating for and with awareness implies that adults pass this example on to the children with whom they interact. The child is still developing the maturation of the brain, so there are feelings and ideas that they cannot fully express in words, as well as they also learn much more from behavioral examples of adults who have as reference, far beyond verbal communication: 'how they see me is how I see myself'.

To educate for and with awareness (the new currents of 'Mindful Parenting' are growing strongly in the scientific community) is to respect above all the essence and the proper development of the child. This consciousness of the individual as unique and unparalleled, projects itself in the relationship with others, with other forms of life, in the connection with nature, and with the world.

If there is the consciousness of the whole, there is also connection, an unavoidable axiom of the consciousness of human life, since intrinsic values such as empathy, solidarity, education for peace and the common good, values such as self-responsibility, the ability to act, the capacity for critical thinking are developed.

Knowing that the process of education unfolds throughout life, the years of the primordial formation of the individual reveal themselves as essential to any relationship with knowledge during adult life.

And this relationship with knowledge is closely related to the vision of oneself in the world and of the world, in the relationship with life, in a condition perpetuated by openness (or not) to new perspectives on the human condition, and on education.

Conscious adults educate conscious children, this grows, replicates, and improves their intrinsic values, thus creating a new cycle of education for connection and with connection, aimed at the integral Being, for the whole. The human being is already born to BE and needs to have the necessary conditions to continue to develop this sense of BEING, from an education that promotes connection and consciousness.

However, the adult remains a learner. At work, throughout life, in your life design. He must educate himself as his educator, open-minded, with an overview, big-picture vision, always open to all levels of the ecosystem until he reaches the Humans. To transcend, for Maslow, was to be able to find purpose and meaning, in harmony with everything and everyone.



The current director of the OECD's Directorate for Education and Skills, Andreas Schleicher, is critical of the hegemonic education system focused on the transmission of academic knowledge at the expense of fundamental human characteristics. For Schleicher Education must provide tools for:

“Thinking about truth, mastery of human knowledge and learning; on the beautiful, mastery of creativity, aesthetics, and design; on the good, the domain of ethics; the just, the domain of political and civic life; the sustainable, domain of the health of nature and physics. These are just a few examples. The social and emotional skills that help us live and work together are increasingly important for success at work and in life. These are the skills needed to set goals, work as a team, and manage emotions. They play an essential role in all stages of life. Along with cognitive and learning abilities, students need to develop strong social and emotional skills, which will help them balance and define their personality. This can include character traits such as perseverance, empathy, resilience, mindfulness, ethics, courage, or leadership" (Schleicher cited by Carriço, 2017).

Conventional education reproduces the values of society and the main political, cultural, sociological, axiological, and epistemological trends, weaving a technical-scientific narrative with immense inaccuracies, centered on the current economic model and scarce of the ethical dimension of ecological reality (Moreira et al., 2020).

The importance of education for the awareness of environmental protection, sustainability, and the awareness of integration in the whole as a contribution to a vision of education of the Being and of a new Humanity is already beginning to be mentioned.

The organic and systemic vision of the web of life, the spiritual connection, an intrinsic characteristic of the human being, the search for the divine. That is why in various anthropological studies the practice of spirituality in different forms is verified throughout human evolution. Even in tribes distant from each other, without any contact, it is possible to observe a constant search for this connection to the divine, as well as a deep connection to Nature and its natural phenomena. And that deeply interconnects everything. Intuition, emotions, and contact with Nature are usually absent in school. This scenario reflects the weaknesses and gaps of hegemonic teaching and calls into question the essence of humanity itself. At the same time, an education where a vision of a superior man separated from Nature and which the competition predominates, enhances the ego, and makes individuals anthropocentric, which is reflected in hegemonic society.

It is necessary to break this unsustainable cycle, providing Education with strategies that bring human beings closer to the natural world toward the effective regeneration of (our) Nature. But also, to encourage and enhance self-knowledge, self-management, empathy, solidarity, and conscious knowledge. In other words, tools that allow this approach to the natural world, in a concise and meaningful way. The practice of mindfulness can be an excellent tool in this regard.



3 CONTEMPLATIVE SCIENCES AND MEDITATIVE PRACTICES

Dorjee (2016) in a complete and comprehensive paper, debates the definition of contemplative sciences and its fast-growing research field.

Dorjee (2016) proposes a broad definition “It is proposed that contemplative science is an interdisciplinary study of the metacognitive self-regulatory capacity of the mind and associated modes of existential awareness modulated by motivational/intentional and contextual factors” (p.3).

As we can see in Figure 2, the author designs the main ideas around Contemplative Sciences.

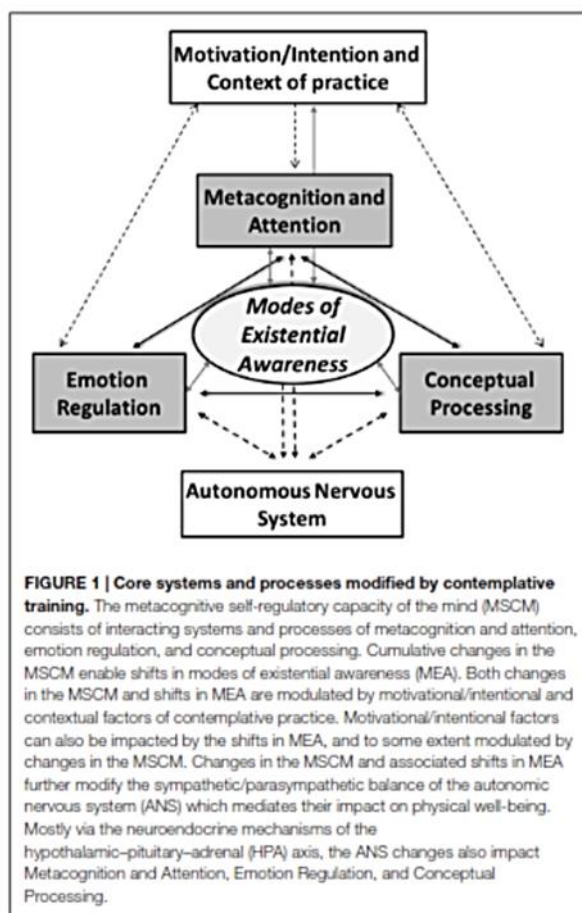
Then, inside the multiplicity of contemplative Sciences, we can find many types of meditative practices, including mindfulness meditation, which we will discuss next.

Cebolla et al (2019) also talk about Positive contemplative sciences.

Although it might seem hard to define meditation, we choose our favorite definition, a mix of many authors and ideas, and the one which allows us to be the broadest we can be: meditation is intentional self-regulation of one's attention. That's it. To be in control, in possession, and to be able to consciously guide one's attention, intentionally.

Dorjee (2016) goes further in Figure 1 and documents the several systems involved in contemplative Sciences.

Figure 2. Core systems and processes modified by contemplative training according to Dorjee (2016)





However the science of meditation is an enormous field of experience and research, and it is a challenge to overcome myths and wrong ideas (mainly from the Western world) and build a comprehensive taxonomy.

Several taxonomies of meditation have been created and researched in recent years including a model from Nash and Newberg (2023). The complexity of meditation is massive, since is it possible to meditate with almost everything you can focus your attention on.

In previous works, we envisioned the optimization of meditative practices in organizational and workplace contexts (Araujo et al, 2023), where adults keep long-life learning, and we reviewed the effects of meditation programs in early school stages (Filipe et al, 2021), but in this paper, we aim to expand the work and bring a framework into all areas and levels of education.

Regarding Mindfulness meditation, it is a type of meditation which, according to author Jon Kabat Zin, is “paying attention, on purpose, in the present, and nonjudgmentally, to the unfolding of experience” “(Kabat Zin cited by Goleman & Davidson, 2017a, p. 58).

Scientific research on mindfulness meditation is one of the types that has produced the most scientific publications in recent decades, thanks to standardized programs, easy replication, and, to some extent, being 'de-ritualized' and accessible to anyone after a short time of training.

However, it should be noted at the outset that it is only one type and that it does not represent the huge panoply of existing meditative options.

Currently, many of the meditative practices, which include *mindfulness*, already present scientific evidence in many areas, and it is academically known within the contemplative sciences. Many of these practices come to us today through certain religious traditions, such as Buddhism.

In this tradition, there are two major types of *Mindfulness* – centering and decentralizing meditation. The first, also known as *Samatha*, uses only one element as a stimulus and the goal is not to deviate from it (Elysium Health, 2018).

In turn, the decentralized, also known as *Vipassana*, presupposes the focus on different stimuli that arise at the time of practice. However, the goal is not to stay too long focused on the same stimulus, in a logic of "take it and leave it". The strategy for freeing yourself from a persistent thought is to focus on the breath. In an ultimate state, the goal is to calm the mind to the point of not focusing on thoughts, but on voidness. *Mindfulness of emptiness* is to practice mindfulness in the void (Shonin et al., 2015).

Many philosophical traditions have had underlying assumptions and practices that meet meditation. If we go back in time, albeit very briefly and simply, we will see that Socrates, the Greek philosopher, who was born in the year 400 BC, was an advocate of an art or activity aimed at taking care of the health of the soul.

Stoicism, which originated in 300 BC in Athens, aimed to think of ways of being in life that fit with meaning and tranquility. For the Stoics "Some things 'depend on us,' or are entirely under our



control, while other things are not." (Fideler, 2022, p. 22). Accepting certain events and realities is a presupposition. However, how we feel and react to these aspects is up to us.

Such Siddhartha Gautama (who became 'the' Buddha, since we all can become budas because we all have Buddhahood in us – in the original Sanskrit '*Tathagata Dharma*'), he left his palace to face reality, confronting less positive situations inherent in life (Hesse, 1998), the Stoics were also well aware that moments of crisis would happen during their lives.

In addition to the awareness of this inevitability, they saw these moments as opportunities to improve as human beings. The Stoics were pro-social philosophers, who understood well the integration of the human with the world and realized very well how much the world was a part of them and *vice versa*.

More recently, existentialism, a philosophical current that was born in the nineteenth century, relativizes the human, since "he will not be anything until later, and then he will be what he makes of himself". (Sartre, 1970, p. 3). In this perspective also lies the idea that the Human is not only responsible for himself but also for all others. As Sartre advocated on the subject, "Nothing can be good for us without being good for others." (1970, p. 4).

The idea is that all the decisions that are made by a certain person, as well as the way that same person acts, have an influence, not only on him but also on everyone who shares the world with him. The use of meditation *Mindfulness* as a cognitive and behavioral therapeutic technique (Vandenberghe & Sousa, 2006) thus has an important role in the world of the individual and the social, as well as in the environmental sphere, as we will see later.

Despite the complexity and limitation of studying these practices (which are already beginning to be covered by taxonomies and aggregations, as we have already seen), which should not be seen as an escape and/or solution to all problems, many of their benefits are scientifically proven, namely reversal of the effects of stress on the amygdala and improved concentration (Goleman & Davidson, 2017b).

In general, meditative practices can be a tool of excellence to promote the encounter with the Self, calm the mind and body, and foster a good relationship with oneself and with the world. The more time you dedicate to practicing *mindfulness*, the bigger and better your results will be. With just a few minutes a day, you can get benefits and it is perhaps one of the most important messages to convey, to democratize your practice and not perpetuate the misconception that it takes a lot of resources, such as time and money, to be able to benefit from it.

4 BODY, MIND, PRACTICE, ETHICS, AND NATURE IN THE PRACTICE OF YOGA

Approximately 5,000 BCE, in India's Indus Valley, archaeologists have revealed images of humans in meditative postures, but, likely, these practices originated much earlier, indicating that



meditative experience has been valued by human beings for millennia (Church, 2022). The Yogic 'science' and philosophy are documented as the first meditative practice in human history (Araujo et al, 2023).

The origin of Yoga is lost in time, and the oldest proof of its existence dates back to the Indus Valley civilization (Basavaraddi, 2015; Picozzi, 2009). Its importance calls the most diverse testimonies, e.g. "By its breadth and depth, by its respectable time of existence, by its doctrine and its method, which include every phase of life, it promises possibilities never dreamed of" (Young cited by Yogananda, 2008, p. 257).

The Sanskrit word means union, today commonly attributed to the junction of the body with the mind, but which in its original form (Eastern philosophy) meant the union or harmony of the human with the divine through the practice of meditation (Blavatsky, 1991).

However, in the Yoga-Sutras from Patanjali, Yoga means "the inhibition of the modifications of the mind" (Taimni, 1961). In this form of *Raja Yoga*, which has several stages, the goal is to bring out a more awakened consciousness, which can observe the limitations of the mind, with its continuous fluctuations and fragmented apprehension of the world, and look at a deeper reality that is Nature (of life). Therefore, Yoga is one of the oldest meditation practices, often referred to as the 'Science of Yoga', since its various forms are deeply experienced, studied, and practiced (although it has recently reached the sieve of the scientific method, the first scientific article published in a scientific journal that addresses meditation is about yoga and dates from 1961 by the authors Wengerand and Bagchi.

In other words:

"It is an applied science, a systematized collection of laws applied to bring about a definite end. It takes up the laws of psychology, applicable to the unfolding of the whole consciousness of man on every plane, in every world, and applies those rationally in a particular case" (Besant, 1995, p. 18).

The best-known Yoga in the West is *Hatha Yoga*, which focuses on the exploration and control of the body as a means of acquiring physical, emotional, and mental balance. It is the beginning of a long road to achieving 'unity'. Before this can occur, it will be necessary to practice *asana*, *pranayama*, *mudra*, *bandha*, *shatkarma*, and meditation (Saraswati, 2008). We will address some practices that relate to the present work.

The *asanas* They are bodily postures, through which it is possible to explore the body, the breath, the mind, and higher states of consciousness. "[The practitioners of *Hatha Yoga*] found that developing control of the mind through these practices enabled them to control mind and energy" (Saraswati, 2008, p. 9). Many of the *asanas* reflect animal movements, a fact that became coined in



their names. For example, the posture of the cat, the cow, the fish, etc. Through observation, the *rixis*¹ realized how animals lived in harmony with their bodies and their environment and were inspired by them. This data is very important, since contemporaneity is guided by the disconnection between us and Nature, and Yoga can help to overcome these problems.

The *Pranayama*, focuses on the *Prana*, which according to Eastern philosophy is "vital energy, (...) pervades the whole body, following flow patterns, called *Nadis*, which are responsible for maintaining all individual cellular activity" (Saraswati, 2008, p. 10). If the channels of vitality *Nadis* are not clear, the *Prana* currents do not flow smoothly in them and can cause various types of nervous disorders (Taimni, 1961).

Still for the author, this condition can be removed by practicing the *Nadi Suddhi*, which is one of the breathing exercises for the purification of *Nadis*. If this exercise is practiced correctly for long periods, in parallel with the regime required of the yogi, "the physical body becomes light and full of vitality and the mind relaxed and restful"² (Taimni, 1961, p. 84). Therefore, some breathing techniques play a crucial role not only in the vitality of the physical body but also in the relaxation of the mind, which is an important stage for meditation. In addition to the *Nadi Suddhi*, Yoga has other breathing exercises, which influence mental states conducive to meditation, such as *ujjayi*, a slow, deep, long breathing practice (Kaminoff, 2007).

Another central issue in Yoga is its ethics *Yama*, well defined by the *Yogas Sutras* of Patanjali. The first principle, designated *ahimsa* is central to this work since it refers to nonviolence. However, this principle does not stop in the human sphere, but embraces all living creatures, not intentionally inflicting on them any injury, suffering, or pain, using words, thoughts, or actions (Taimni, 1961). Behind this principle lies another important concept in Yoga, which is the Oneness of Life. Thus, the practitioner of Yoga should not inflict any kind of violence on other beings or Nature in general, since he identifies with this all-embracing life, including himself.

Yoga offers a means for the individual to find their way to connect with their true self (Saraswati, 2008). On the other hand, for the author, this personal self is an illusion, since in Yoga there is the union of the individual consciousness with the universal consciousness.

The deepest Self is a Self that encompasses all life, human and beyond human. To be aware of the integration of our being with all other beings and that everything is connected, and should not, therefore, be perceived and experienced fractionally.

All these reflective aspects of the self, of the deep self-knowledge of the self and the brain and the body, are and always will be at the core of the goals of meditative practices.

¹ *Rixis* (*Richis*, *Richis*) literally 'revelators', are holy or enlightened sages, inspired singers or poets, to whom the Vedic hymns have been revealed (Blavatsky, 1991).



In addition to *ahimsa*, we find other ethical principles that deserve mention: *satya*, which corresponds to the adoption of actions, thoughts, and words that always respect the truth; *asteya*, which focuses on the non-appropriation of another's property; *bramacharya*, oriented to the search for the essential in life, and *aparigraha*, which cultivates moderation and detachment.

If we used each of these principles, we could design mindfulness-based educational interventions geared toward connecting with the ecosystem. One of the most immediate, with which we can quickly imagine a meditation for reconnection, is *ahimsa*, as violence (at all levels, both individual and macro) against the ecosystem has reached extreme points these days.

4.1 MEDITATIVE PRACTICES AND NATURE-BASED MINDFULNESS AS A WAY OUT FOR THE ECOLOGICAL CRISIS

Theories and evidence confirm what many of us feel when we are in Nature: an inexhaustible source of happiness and well-being. However, we will only be able to have access to this source if we reverse the absurd war that the hegemonic society wages against Nature, which according to the philosopher Paulo Borges, is the result of distortion or obscuration of consciousness (Gonçalves & Moreira, 2018).

To analyze this question, Rimanoczy & Llamazares proposes a revision of our paradigm to identify the problem (2021). For these authors, the planetary emergence requires a revision of our perception of ourselves, others, and ecosystems, since working at the level of mentality enhances resources and accelerates change.

However, the mindset required to achieve sustainability is quite complex. In a study initiated by Rimanoczy and which continues to be developed with other co-authors, twelve principles emerged to restore ecological balance, called the 12 Pillars of the Sustainable Mindset (Rimanoczy, 2020), which offer a framework with which it is possible to access, explore, review, verify and develop key aspects that constitute the mentality (Rimanoczy & Llamazares, 2021), framework to which we will come back at the end of this papers when we present some specific practical proposals.

These twelve Principles are organized into four areas: Ecological World Vision – which includes the Ecoliteracy Principles and My Contribution; Systems Perspective –includes the Principles of Long-Term Thinking, Cyclic Flow, Both+E, and Interconnection; Emotional Intelligence –includes the Principles of Self-Awareness, Reflection and Creative Innovation; and Spiritual Intelligence – includes the Principles of Oneness with Nature, Purpose, and Mindfulness.

On this last Principle, the authors state that contemplative practices have been associated with socio-environmental activism and a sense of interconnection and unity with everything that exists. And since the processes are interconnected, let's focus the approach on this Principle, connecting with the others.



When the Zen Buddhist monk Thich Nhat Hanh was asked what is needed to be done to save our world, he replied: "What we most need to do is to hear within us the sound of the earth crying." (Nhat, Hanh cited by Vaughan-Lee, 2013, p. Introdução 1^a ed.). By his lineage, Nhat Hanh had his life practicing meditation, with a special focus on *Mindfulness* a psychological process and mode of consciousness that is evoked when attention is intentionally regulated (Bishop et al., 2004), the awareness that emerges from paying attention to the present moment (Kabat-Zinn, 2003), with an open attitude, of non-judgment and acceptance (Djernis et al., 2019). With this technique, Nhat Hanh realized that his interior was not separated from the world (perceived as) exterior and that all phenomena were interconnected:

"If you are a poet, you will see clearly that there is a cloud floating in this sheet of paper. Without a cloud, there will be no rain; without rain, the trees cannot grow; and without trees, we cannot make paper. (...) Looking even more deeply, we can see we are in it too. (...) The sheet of paper is part of our perception. Your mind is in here and mine is also. So we can say that everything is in here with this sheet of paper. (...) "To be" is to inter-be. You cannot just be by yourself alone. You have to inter-be with every other thing." (Nhat Hanh, 1991, pp. 95–96).

This mindfulness around a sheet of paper gave rise to the concept of "Interbeing", which understands the world, its phenomena, entities, objects, matter, mind, and energy as intertwined and interdependent elements of Nature. Each element exists because all the others also exist.

How targeted and regular mental practice can alter brain structure (Neuroplasticity) (Valk et al., 2017), then, *Mindfulness*, in addition to bringing out a set of qualities cultivated by the practice of meditation (Kabat-Zinn, 2003), can deepen perceptions and change long-established attitudes and behaviors. The monk and researcher Matthieu Ricard used to say: "change the mind, change the brain" (e.g., Ricard, 2007).

We can add: change your brain with your mind, change the reality of your life, and inspire others around you (Moreira, 2019), since second Goswami et al., consciousness itself creates reality (2015). Thus, *Mindfulness* as a way of working on and in consciousness, can be an excellent tool to reflect on our way of seeing and being in the world and, above all, to deconstruct the neuronal connections that lead us to have unsustainable attitudes and behaviors, creating a new brain structure that makes us (re)approach to Nature, so necessary to combat the ecological crisis, as proclaimed by the above-mentioned institutions, which are equipped with scientific reports at the highest level.

In turn, the *Mindfulness* practiced in Nature has better results if it is carried out in a space of wild nature (Djernis et al., 2019). In addition, Yoga can also enhance its qualities.

So, will this approach to Nature have only effects when it is shaped by institutions?

We defend a practice of individual consciousness, important undoubtedly in its genesis, but if it does not happen in a macro sphere, how many generations will be necessary for a change of vision and educational paradigm?



As Edgar Morin points out, the complex conception of humans involves the triad of individual-society-species. We are the product of interactions, and we produce the interactions that form society, these constructs are inseparable, they feed each other and it is "within this complex triad (that) immerses consciousness", in the anthropo-ethical vision of education of the future and for the future, while "consciousness and planetary citizenship", "work for the humanization of humanity, effect the double conduction of the planet: obey life, guide life." It is about moving towards an "individual consciousness beyond individuality" (2002, p.114).

As we have seen above in the definition referring to contact with Nature, this is in full tune with *mindfulness*, realized/focused on the natural world, since both are states of consciousness that reflect the interrelationship between the human individual and the surrounding Nature. Therefore, both the concept of contact with Nature and *mindfulness* in Nature are very close to the concept of ecological awareness:

“In general terms the ecological consciousness is understood as a reflection of the psyche of a variety of man's relationship with nature, which mediate its behavior in the "natural world", and express axiological position of the subject of consciousness in relation to the natural world. And studies show that environmental consciousness is a complex mental education, which includes cognitive, regulatory, emotional, ethical, and other aspects” (Panov, 2013, p. 380).

Under the prism of deep ecology, which is an ecocentric environmental ethic, it can be said that ecological consciousness or ecological awareness is *mindful* in/of Nature, since it is the quality that stands out from deep reflection of Nature. Thus, *mindfulness* in Nature puts us in deeper contact with the natural world, making ecological awareness grow.

Nature-based mindfulness has seen many developments but also mergers, as is the case with the approach by Church et al (2022) which the authors called ‘EcoMeditation’. EcoMeditation consists of stress-reduction skills, specifically *mindfulness*, heart coherence, EFT, and neurofeedback. In several research, participants attend a full-day virtual workshop and completed assessments before and immediately after the session. After a one-day EcoMeditation workshop, results indicated that participants experience a significant reduction in anxiety, depression, PTSD, and pain, along with an increase in happiness, flow states, and transcendent experiences. At a 3-month follow-up, a significant decrease in anxiety, depression, and pain between the pretest and posttest, as well as pretest and follow-up.

In the same research, the authors state that, furthermore, the results also revealed a significant increase in flow states, happiness, and transcendent experiences between pretest and posttest, as well as pretest and follow-up. Decreased PTSD symptoms were evident over the 3 months between pretest and follow-up.

Therefore, the need for symbiosis between mindfulness practice is associated with practices of knowledge expansion, teaching, and training. Currently, the education and training sectors are being



encouraged by the European Union for the ecological transition and the strengthening of skills regarding sustainability behaviors in their students.

From the promotion of behaviors and attitudes that aim at a more sustainable life, with the reduction of consumption and an awareness of the impact of individual and collective action in favor of the environment. However, these guidelines are still in the theoretical sphere and are not implemented as educational practices and systematic features of EU policies (2021).

Mindfulness, if carried out (with focus) in a natural environment, has the potential to expand consciousness from an egocentric self – formed by the dispositions of a competitive society alienated from Nature – to an ecological Self – awakened to the reality of life. The term "ecological self" was coined by the philosopher Arne Naess to describe the ability of the human being to identify with other living beings, expanding and deepening his self to include microorganisms, trees, animals, forests, rivers, mountains or even the Earth itself (Naess, 2005). The maturity of this ecological consciousness – the legacy of a personal ecosophy – which includes *mindfulness* to life and contact with Nature, leads to self-realization – the realization of the "self-in-Self", in which the Self symbolizes the organic totality that exists in the world (Sessions & Devall, 2004, p. 87).

This is a practice in tune with the Yogic meditative tradition, as we have already seen. In turn, for the authors, self-realization leads to an "oceanic feeling" of realization of the potentialities of life (p. 96-97), contained in the immeasurable lightness of an inner fulfillment that many humans feel by the sea or in another place of ravishing wild beauty. There is a joy that grows as our consciousness grows and we relate to the world and other beings: "You are much bigger, deeper, more generous, and capable of greater dignity and joy than you think! A wealth of non-competitive joys is open to you!" (Naess, 1987, p. 40).

For deep ecologists, who work on their ecosophy, this identification with all life leads to an innate defense of Nature. Defending society, a species, a river, or the Earth thus becomes the defense of oneself. Therefore, the disconnection that hegemonic society has concerning Nature is mainly a problem of consciousness (Zylstra et al., 2014). Hence, contact with Nature, together with meditative techniques within it, including the practice of Yoga, is a central aggregate for the resolution of ecological problems.

It is necessary for a reorganization of knowledge, that is, of the scale of priorities about the formation of the individual. Should not the human condition, as well as the earthly condition, be primordial and object of study in teaching? Consciousness does not develop without access to information and knowledge. It's like trying to plant seeds without land. Knowledge is the land where the seed will germinate to make way for the plant (consciousness), which grows from the sun and water (mindfulness practice) and the nutrients of the earth (knowledge).



Being in contact with nature can involve many different things. We can go from a formal practice of meditation to only being, observing, or non-judgment (which can be especially difficult for the little ones because of their nature of movement and response to stimuli) to a practice of care, such as agriculture, gardens, knowledge of species; even from frequent walks, breathing fresh air.

A large part of the population lives in cities, and many do not have direct contact with the observation of a plant growing, the planting of food, or contact with animals. This lack of knowledge inevitably leads to a disconnection of the individual from his place in nature and, consequently, with his nature and identity. This separation distorts the notion of essence that guides everyone, the feeling of belonging and connection to the Earth.

Therefore, the importance and urgent need to (re)learn to be and to be as inhabitants of the planet.

Simple practices of breathing in the classroom, of contemplation of silence, of simple observation, of knowing how to stop and stay to BE, can have a strong impact on the development of emotional self-management, along with activities that promote emotional literacy for a greater knowledge of oneself, created and adapted to the different phases and ages. The school curricula must present regular activities of emotional management, meditative practices, connection with Nature and contemplative sciences, self-knowledge and ecological knowledge, and sustainable behaviors.

The effects and benefits that these practices would bring to society in the long term are still immeasurable, we can foresee them in the optimistic understanding of constituting themselves to go in the holistic formation of the individual in education for the future. But only by acting in the present does it become possible to prepare for the future and it is in pedagogy that these contours are achieved to promote social change, by its format of education for all, thus overturning social inequalities about education for connection and holistic knowledge that is intended to be for all.

5 FINAL CONSIDERATIONS AND PROPOSALS

Calls for society to reconnect with Nature to bring greater sensitivity and alleviate environmental problems are commonplace in scientific literature and environmental discourse. On the other hand, this contact is also an important factor in human health, and the various cultures that have used natural environments as sacred spaces, for well-being, healing, and even spiritual awakening are lost in time.

Among these dimensions, there is the environmental ethics that contemporary philosophy has brought to the fore, but which many of the spiritual and religious traditions of the East have already integrated. Yoga, which emerges in culture alongside Buddhism, Jainism, and Hinduism/Brahmanism, also integrates an ecological ethic, that of non-violence, which can be employed to help slow the pace



of habitat destruction and the extermination of species around the planet. ("The Routledge Handbook of Religion and Ecology", 2017)

How are we educating our children? Is the education system prepared for new paradigms? Is there an openness to innovation? How many generations will it take to "educate to conscience?" Is it possible to reach a consensus on meditative practices free of religious dogma?

Today we already have scientific data that supports the importance of Nature in our lives. However, an anthropocentric conception of Nature, leveraged in religious, philosophical, and scientific concepts out of step with organic reality, made a society grow that began to look at Nature as an inert machine at its mercy and separated from itself. This caused a departure from the hegemonic society of Nature.

To entangle the situation, a consumerist and competitive economy was created that unbridled exploits Nature and an Education that reflects this whole paradigm. Perhaps there is a lack of "hearing within us the sound of the Earth crying", and it is urgent to enhance and develop strategies and educational tools that promote a sustainable Education for a society in balance with Planet Earth, that call for a (re)connection and greater awareness in a purpose of evolution of ecological and sustainable Humanity. This is where *Mindfulness* because it requires "an exceedingly vigilant mind; and whence meditation is the comprehension of the totality of life, in which there is no longer any kind of fragmentation." (Krishnamurti, 2006, pp. 102–103).

Mindfulness in Nature enhances the best of both worlds – it brings us closer to the natural world, to know it, and to get to know ourselves better. It is a privileged way to combat the ecological crisis, towards more sustainable or regenerative living practices.

That is, the ecological Self in the restoration of (our) Nature, to leave a better world than we found, for our children, for the children of our children and if we want to continue to have a planet to live on, where we can satisfy our needs and those who will still come, it is urgent to change directions, innovate conceptions, change visions and paradigms, rethink education strategies, whether in pedagogy or andragogy.

As Moreira says:

"To defend Nature, we must love it;
To love Nature, we need to know it;
To know Nature, we need to awaken to its true nature;
To awaken to its true nature, we need to find it within us."
(Moreira, 2019, p.22).

Biophilia is innate to us, and contemplative practices can enhance this kind of awareness, especially when practiced in a natural environment. In addition, it is necessary to educate for this mindset in consciousness from day one, when we receive a new human being on the planet. Parents, families, schools, organizations, businesses, and communities must come together as educators and, in



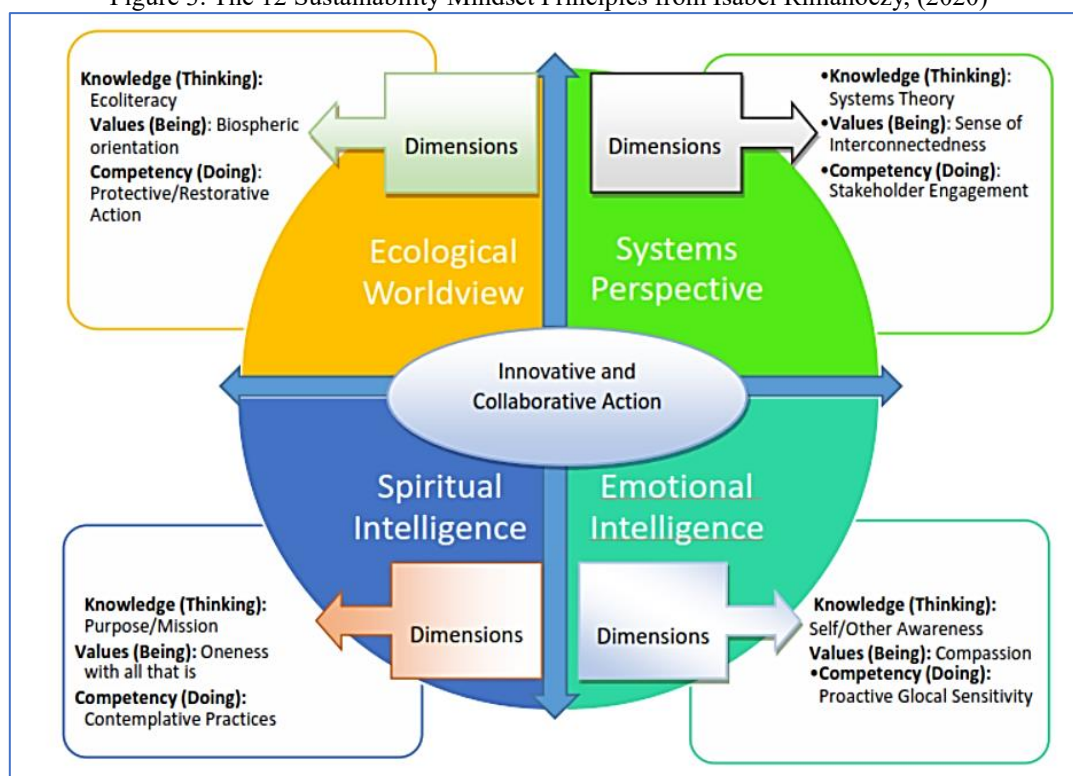
this paper, we argue that this sense of connection can be achieved by the operationalization and normalization of meditative practices in all contexts where humans learn because...:

“Humankind has begun to awaken to the interconnections between planet, people, and prosperity, and is beginning to recognize that our alterations to the biosphere result in climate change, desertification, and species loss, and how greater income disparity creates social unrest. As society undergoes fundamental changes, they trigger shifts in educational paradigms as well” (Mitchell, Kassel & Rimanoczy, 2018, p.31)

Given all these reflections and our pyramid proposal in Figure 1, we go further and substantiate that it is possible to merge the ideas we present in Figure 1 and Figure 3, in which we depict Rimanoczy (2020) 12 principles of sustainability mindset.

Using these frameworks, we can design meditation programs throughout all levels of education, which promote these skills and mindsets.

Figure 3. The 12 Sustainability Mindset Principles from Isabel Rimanoczy, (2020)



NOTE: This image was retrieved from the paper of Mitchell, Kassel, and Rimanoczy (2018)

Every principle of the 12, framed within the 4 dimensions can be operationalized using meditation and used in Education.

Our next challenge, for the next chapter, is to operationalize the meditation practices in detail, but overall, the dimension of spiritual intelligence is obvious since the first use of all meditation practices was no well-being or stress management, but the connection to divine consciousness and



altered states of mind (even without religions involved, since Yogic Philosophy original is a system and a lifestyle with no religion connections. The hundreds of religions appeared after that).

Emotional intelligence, a skill, and competence that boomed in the latest decades, was very much projected by Daniel Goleman (1995), highly influenced by previous works, namely Howard Gardner's theory of 7 Multiple Intelligences (1983), reframed to 9 bits of intelligence in 2000, falls right into mindfulness meditations of emoticons.

Ecological Views and Systems Perspective Dimensions fall directly into practicing METTA-KARUNA meditation, love, compassion, and benevolence to all beings and oneself, studies nowadays by many scientific researchers, for example, Neff and Shapiro (2019), although compassion and benevolence meditation also has a long history in Tibetan Buddhism.

Inside each one of the 4 dimensions are 3 principles, which compose the framework of the 12 principles of sustainable mindset developed by Rimanoczy (2018), and, in this paper, we defend that each one can be developed by the multiplicity of practices contained in the contemplative Sciences domain, and so, next research will develop and deepen this plea, and ideally we will be creating checklists, guidelines and other types of products so that, educators of all levels and all scientific areas, either in formal Education or non-formal or informal, might implement them in the future.

As a final reflection, in Daniel Goleman and Richard Davidson's book – which we consider the founding fathers of scientific research in meditation in the West – authors state that we are on the verge of proving the possibility of Altered Traits (the title of the book from 2017a). According to the author's review of hundreds of papers, meditation is proven to improve focus and attention, reduce stress and anxiety, enhanced memory and retention, increased self-awareness, enhanced emotional regulation, and improved creativity and problem-solving, which are some of the most important pillars in learning and Education. If the practice of meditation changes our personality traits and improves all these aspects, that seems to be an ideal application to change the way we educate and change Education practices forever, and the perfect model to reconnect human beings to Nature, to the ecosystem, and a new sustainability mindset.



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