



CONTEMPLATIVE WONDER AS A KNOWLEDGE CONSTRUCTION PROCESS: EDUCATIONAL REMARKS

O DESLUMBRAMENTO CONTEMPLATIVO COMO PROCESSO DE CONSTRUÇÃO DE CONHECIMENTO: CONSIDERAÇÕES EDUCACIONAIS

EL DESLUMBRAMIENTO CONTEMPLATIVO COMO PROCESO DE CONSTRUCCIÓN DEL CONOCIMIENTO: CONSIDERACIONES EDUCATIVAS

Ellen Nogueira RODRIGUES¹ e-mail: ellen_unasp@hotmail.com

How to reference this article:

RODRIGUES, E. N. Contemplative wonder as a knowledge construction process: Educational remarks. **Revista Ibero-Americana de Estudos em Educação**, Araraquara, v. 18, n. 00, e023089, 2023. e-ISSN: 1982-5587. DOI: https://doi.org/10.21723/riaee.v18i00.17708



Submitted: 08/02/2023

Revisions required: 25/03/2023

| **Approved**: 22/06/2023 | **Published**: 03/10/2023

Editor: Prof. Dr. José Luís Bizelli

Deputy Executive Editor: Prof. Dr. José Anderson Santos Cruz

¹ Adventist University Center of São Paulo (UNASP), Engenheiro Coelho – SP – Brazil. Professor of the Professional Master's Degree in Education at UNASP.

DOI: https://doi.org/

RIAEE – Revista Ibero-Americana de Estudos em Educação, Araraquara, v. 18, n. 00, e023089, 2023. DOI: https://doi.org/10.21723/riaee.v18i00.17708

e-ISSN: 1982-5587

0 /

LE SUBMITTED TO THE SIMILABITY SYS

ABSTRACT: Wonder experiences that aim to promote perplexity, the formulation of hypotheses and the investigation of the meaning of human experience in teaching practices are scarce. Therefore, this article aims to identify and analyze the education of contemplative wonder articulated by Anders Schinkel for the educational field and moral education. This work, of a theoretical nature, is based on the theoretical framework of Schinkel's educational philosophical thought, in which we will analyze the author's main works. The research results indicate the potential of contemplative wonder for recognizing the limits of human knowledge, by providing an attitude of receptive attention to something that is familiar and promoting new possibilities and far-reaching and profound conceptions of reality. In addition, wonder opens horizons for us to establish a kind of relationship with the world of appreciation, respect and care for humanity and life forms.

KEYWORDS: Wonder education. Knowledge construction process. Education. Teaching practices. Moral education.

RESUMO: As experiências de deslumbramento que visam promover a perplexidade, a formulação de hipóteses e a investigação do significado da experiência humana nas práticas de ensino são escassas. Portanto, o presente artigo tem como objetivo identificar e analisar a educação do deslumbramento contemplativo articulada por Anders Schinkel para o campo educacional e a educação moral. Este trabalho, de natureza teórica, se apoia no referencial teórico do pensamento filosófico educacional de Schinkel, no qual analisaremos as principais obras do autor. Os resultados da pesquisa indicam o potencial do deslumbramento contemplativo para o reconhecimento dos limites do conhecimento humano, ao proporcionar uma postura de atenção receptiva para algo que é familiar e promove novas possibilidades, bem como concepções abrangentes e profundas da realidade. Além disso, o deslumbramento abre horizontes para estabelecermos um tipo de relacionamento com o mundo de apreciação, respeito e cuidado diante da humanidade e as formas de vida.

PALAVRAS-CHAVE: Deslumbramento contemplativo. Processos de construção de conhecimento. Educação. Práticas de ensino. Educação moral.

RESUMEN: Las experiencias de asombro que pretenden promover la perplejidad, la formulación de hipótesis y la investigación del significado de la experiencia humana en las prácticas docentes son escasas. Por lo tanto, este artículo tiene como objetivo identificar y analizar la educación del deslumbramiento contemplativo articulada por Anders Schinkel para el campo educativo y la educación moral. Esta obra, de carácter teórico, se basa en el marco teórico del pensamiento filosófico educativo de Schinkel, en el que analizaremos las principales obras del autor. Los resultados de la investigación indican el potencial del deslumbramiento contemplativo para el reconocimiento de los límites del conocimiento humano, al proporcionar una postura de atención receptiva a algo que es familiar y promueve nuevas posibilidades, así como concepciones integrales y profundas de la realidad. Además, el deslumbramiento nos abre horizontes para establecer una especie de relación con el mundo del aprecio, el respeto y el cuidado ante la humanidad y las formas de vida.

PALABRAS CLAVE: Deslumbramiento contemplativo. Procesos de construcción de conocimiento. Educación. Prácticas docentes. Educación moral.

(cc) BY-NC-SA

Introduction

Children naturally experience a sense of wonder, enchantment and mystery when faced with certain phenomena, objects and the reality that surrounds them. As we grow up, we become so familiar with reality that we end up trivializing our inclination towards contemplation and perplexity with life. As Schinkel comments (2018, p. 1), "children gradually lose the natural inclination to see things with wonder in relation to the why, how and what of things." When faced with constant changes and innovations and a highly technological way of life, what is familiar to us, such as the sunset or the process of photosynthesis, becomes insignificant. Faced with such a scenario, we believe that it is necessary to encourage and disseminate experiences of wonder in the educational process among students as a valuable resource to promote curiosity, formulate hypotheses and as a means to explore human experience and the meaning of life.

Contemporary educational policies tend to appropriate neoliberal postulates focused on performance, standardized tests, assessments and the student grading system, which end up reinforcing the search for ready-made answers, instead of encouraging doubt, questioning, wonder and the use of imagination to formulate possible alternative conceptions to the questions investigated at school (D'AGNESE, 2020). In this sense, researchers in the field of education, such as Hadzigeorgiou (2012), Egan, Cant and Judso (2013), Schinkel (2018; 2021) and Schinkel *et al.* (2020), advocate the need to stimulate experiences of wonder in the educational context, according to the perspectives articulated in the emerging area of study called *Wonder Education*, which we are translating into Portuguese as Education of Wonder.

The objective of this article is to identify and analyze the fundamental notions of the education of contemplative wonder articulated by Anders Schinkel for the educational field and, more specifically, moral education. This work, of a theoretical nature, is based on the theoretical framework of educational philosophical thinking by S Schinkel (2018; 2021) and Schinkel *et al.* (2020), whose main texts to be analyzed are: *Wonder and Education: On the educational Importance of Contemplative Wonder* (Amazement and education: the educational importance of contemplative wonder), *Wonder, Education, and human Flourishing: Theoretical, Empirical, and Practical Perspectives* (Amazement, Education, and Human Flourishing: Theoretical, Empirical, and Practical Perspectives) and *What Should Schools Do to Promote Wonder?* (What should schools do to promote wonder?). In the following sections, Schinkel 's concept of contemplative wonder for education and moral education will be presented, as well as the

process of building contemplative wonder within the classroom. Finally, we will present the conclusions and implications of contemplative wonder for education.

The Concept of Contemplative Wonder for Education

Philosopher of education Anders Schinkel is an associate professor at the Faculty of Behavior and Movement Science at Vrije Amsterdam University in the Netherlands. He is part of the LEARN! interdisciplinary research institute, whose objective is to develop various researches in the field of education. One of the main concepts developed by Schinkel (2018; 2021) and Schinkel *et al.* (2020) is called *Wonder Education*, which guides their educational thinking and reflection.

The Inquisitive and Contemplative Wonder

The notion of wonder is seen as fundamental to promote the student's active and creative participation, in order to enhance systemic processes in which the student can analyze, evaluate, question and experience more meaningful and pleasurable learning processes. Schinkel *et al.* (2020) points out two important processes that guide the construction of knowledge by students, both in the context of the classroom and in the broader social context: the inquisitive and the contemplative wonder. In contemplative wonder, something impresses us in such a way that it ends up silencing us, revealing the limits of our knowledge in relation to a deeper sphere of sense and meaning of reality. In turn, inquisitive fascination involves a posture of seeking explanations, which is close to curiosity.

According to the author, although the two processes of knowledge are imperative in educational practice, he highlights the absence of contemplative wonder in the day-to-day contingencies of the classroom, which largely impedes the expansion and internalization of knowledge. However, Schinkel *et al.* (2020, p. 36, our translation) also highlight "the care with the reification between the distinction of contemplative and inquisitive wonder, as if we were dealing with two clearly separate realities." In other words, these concepts serve to highlight abstract ways of portraying reality, when we observe the qualitative differences in knowledge. However, there are no exact demarcation lines between the concepts and, moreover, the boundaries between them are not strict.

To elucidate the concept of contemplative wonder, Schinkel (2021) uses his own experience of finding a frog on the beach as an example. This event led him to question, analyze and ponder how that small, living being would have ended up there. His encounter with this

animal initially triggered a series of inquiries that fostered inquisitive restlessness and then led to contemplative wonder. At this deeper level of wonder, we are impressed by the observed object (nature, moral virtues, truth, etc.) and moved beyond our assumptions about what we think we see about reality. There is, therefore, in wonderment, the recognition of the limit of our understanding of the world as we know it. That is, the object of our wonder "presents the limits in perspective, reminds us of our limitations, and at the same time reveals that there is a 'world' beyond our image of the world" (SCHINKEL, 2021, p. 74, our translation). The focus on the object makes us forget ourselves, to perceive the world as something valuable in itself, where we are confronted by mystery and perplexity, and we seek deeper meanings of reality.

According to Schinkel (2021), contemplative wonder encompasses a variety of experiences, namely: (1) recognition of the limits of human knowledge about the world; (2) the character of encounter; and (3) the opening to revelation. In the first characteristic, when we recognize the limitations and precariousness of our *framework* for interpreting reality, we are faced with what we do not know, what we actually understand and what we cannot understand about the reality that surrounds us. Thus, it is from the awareness of uncertainties that we take interest in the world, through which the imagination awakens and builds alternative possibilities (SCHINKEL, 2021).

The second characteristic of contemplative wonder involves an encounter with the object. There is an attitude of receptive attention to something that is familiar but that we recognize as something important in its own right, inherently valuable and worthy of respect, while causing misunderstanding and perplexity. When we are dazzled by a particular phenomenon or object "we perceive it not analytically, but as a whole and, as we cannot conceptually understand it completely (only abstractions of the whole), it becomes 'an excess for us' and carries a mysterious character" (SCHINKEL *et al.*, 2020, p. 28, our translation). With this, the experience of contemplative wonder is connected to the awareness of the object in all its breadth, not in an atomistic or analytical way, which reveals itself to be dazzling, mysterious and perplexing.

As Malpas (2006, p. 62, our translation) describes, contemplative wonder has a phenomenological "character of an encounter that proves to be revealing, an opening up to things and the world – which are at the center of the experience of contemplative wonder." This encounter requires openness to the object, to which a new layer of meaning is added to pre-existing knowledge. We contemplate the object as inherently valuable and important by superimposing the trivial meaning usually given to what is already familiar to us. In addition,

the encounter with the object can evoke a range of feelings and attitudes of appreciation, respect and reverence (SCHINKEL, 2021).

The third feature encompasses the openness to revelation for modes of contemplation and interpretation that present us with something about the world that goes beyond our perceptions and conjectures. According to Schinkel (2021, p. 46, our translation), contemplative wonder "awakens our mental capacity for abstraction and higher thinking and directs our mental activities to build broader models in which parts of our lives are thought of in terms of meaning and purpose." In this direction, Fuller (2006) argues that wonder leads us to confront an elusive world 'behind' and 'beyond' our perception, when we look beyond our plans and interests, when we seek meaning and awareness of moral ideals.

In view of this, the revealing nature of wonder stems from the recognition of the precariousness and inadequacy of our interpretation of reality, by awakening broader and more comprehensive conceptions of reality. Therefore, contemplative wonder comprises various ways of being potentially touched by the world, which go beyond the traditional way of looking at and thinking about it (SCHINKEL, 2021). Although the experience of contemplative wonder runs away from exact conceptualizations, Schinkel (2021, p. 47, our translation) proposes the following definition:

It is a mode of consciousness in which we experience what we perceive or contemplate as alien, profoundly other or mysterious, fundamentally beyond our limits of comprehension, yet worthy of attention in its own right, in which attention has an open form, a receptive posture, and a conciliation with the mystery.

There is a receptive posture and an awareness of the value object and its importance, which makes us access the transcendent universe, the cosmic dimension and the meaning of life. In contemplative wonder, we are moved to value the object (material reality, virtues, nature, etc.) and react in a variety of affective valences, such as appreciation, happiness, respect and reverence. This openness to the world, as we make meaning out of the ordinary things in life, fills us with wonder, imagination and mystery, and moves us beyond our trivial experience and a mode of consciousness oriented only towards utilitarian goals.

Schinkel (2021) considers contemplative wonder as a process that begins with a familiar object, but ends up becoming unfamiliar with what was seen as trivial. Thus, we become aware of it as something completely new, open to the possibility of an imaginative and revealing experience about human existence. In this sense, education via contemplative wonder promotes

(cc)) BY-NC-SA

significant experiences in the process of knowledge construction in the educational context and in moral education, which is the focus of the next sections below.

The Construction Process of Contemplative Wonder in the Classroom

In the interactive processes in the classroom, we can observe the wonder, curiosity and natural perplexity of children with planes, tractors, the sky, rainbows and everything around them. They spontaneously ask questions such as: "Why do crows gather together at night?", "How do leaves form their shape?" and "How do mosses survive the winter?" There are countless questions and the desire to know reality. However, the natural inclination to attribute importance to the observed world is gradually reduced, as they become trivial and ordinary experiences. In addition, the emphasis on the cognitive and inquisitive dimensions prevails in students' educational experiences, and few experiences of awakening and interest in things and objects in the world.

Schinkel (2018; 2021) and Schinkel *et al.* (2020) identify, in pedagogical practice, the absence of intentionality with teaching that promotes perplexity and enchantment with the natural world. The author recalls a class in which the teacher asked the students to collect leaves and paste them in their notebooks. He recalls the lack of meaning and purpose in the activity, as the teacher did not engage the students in the sense of wonder, imagination and perplexity present in the object of study. It was up to the teacher to project the sheet towards the light, so that the students could analyze and contemplate the complexity and peculiarity of the parts of the sheets. The simple act of highlighting the sheet would enable engagement, inquiries and conjectures, which reveals the potential of contemplative wonder for the student's experience.

Education for contemplative wonder seeks to rescue its role in teaching practice, in order to awaken greater understanding and appreciation for the world, as it encourages doubt, alternative ways of thinking, the discovery of new things and the astonishment and wonder of the spectacle of the universe. This experience "discovers the new in the old, the strange in the familiar and the extraordinary in the ordinary" (WORDSWORTH, 2014). Thus, we are motivated to us defamiliarize from ordinary and trivial experience, by formulating new interpretations and meanings for reality (SCHINKEL, 2021). Through exploration and genuine doubt, students formulate new personal interpretations and perspectives.

As Schinkel (2021, p. 136, our translation) states, contemplative wonder moves us "beyond the surface,' mere familiarity with things and acceptance of things as they are". Consequently, there is a reassessment of the perspectives and importance given to the natural

world, in which the ego is placed in the background and, in the foreground, there is the recognition of the intrinsic value of things and events. The dazzle with what is familiar to us goes beyond our power of understanding and we are exposed to the condition of vulnerability. This implies an openness to mystery, curiosity and imagination.

However, there is a phenomenological difference between being curious and being dazzled. According to the author, curiosity consists of the desire to know the object, while in dazzlement the object takes center stage. In the process of dazzlement, the "I" is decentralized and emptied, and the object affects us when we recognize its value. On the other hand, curiosity makes us look for the object, as in the case where we want to know what is inside the gift box under the Christmas tree. In curiosity, the focus is on the desire to know, while in contemplative wonder, it is on the object, for its intrinsic value. The appreciation and assimilation of the object allows reassessing existing assumptions and pioneering new ideas. Therefore, integrating wonder into the contents enables uncertainty, enchantment and perplexity to recognize new possibilities and ideas about the world.

For the Dutch theorist, the following points can be used to promote contemplative wonder in the classroom. The first aspect is to preserve the natural experience of wonder in children (SCHINKEL, 2021). Once, a teacher started the class by commenting that her car is powered by fossil fuels. The students were immediately impressed and intellectually stirred by the statement. Before the children's curiosity gave way to impatience, she explained what that means: my car runs on petroleum, a product derived from petroleum, which is derived from fossils. The fossil is formed naturally when microorganisms (plants and algae) are buried and subjected to intense heat, when being pressurized for eons (SCHINKEL, 2021).

The second aspect is related to cultivating students' sensitivity and willingness to be dazzled by the world, to open space for perplexity, mystery, appreciation of nature and material objects. In this sense, the teacher can include in his teaching practice what causes astonishment and wonder in his personal life and in the contents taught, by creating teaching practices that bureaucratic practices instituted by instrumental/technical rationality overcome (BERKENBROCK-ROSITO; DE OLIVEIRA, 2022). Piersol (2013) observed, for a year, a teacher willing to integrate her questions and wonders into the syllabus and the reality of the classroom. In the questions presented by the teacher, the students were able to explore descriptive answers of cause and effect about the phenomena in view, as well as about the grandeur and mystery associated with human life and the natural world. The dazzle opens avenues in teaching practice so that students can be surprised by the knowledge of the world,

instead of considering knowledge as static entities or as immutable data, in which there is still little to be explored (PIERSOL, 2004; SCHINKEL, 2021).

The third aspect involves valuing the students' moments of wonder and perplexity in the teaching-learning process. Questions and concerns are important means for the student's fascination and engagement. In these cases, learners get involved with the activities because they are genuinely interested in knowing and discovering the meaning of what they are learning.

Wolbert and Schinkle (2021) suggest some pedagogical resources in order to stimulate the sense of wonder in the context of the classroom: (1) exploration; (2) improvisation; (3) imagination; and (4) personal interest. The first resource, which is exploration, requires attention given to nature, especially on field trips. In nature, students are dazzled by things and events: the ingenious spider nets, the plant that circles the tree or the fact that nature has a law of service, in which one depends and is in a service relationship with the other. These elements evoke the surprise and perplexity of the student, in which the teacher can sensitively go beyond mere surprise to a profound experience of wonder, or this experience can lead him to an inquisitive attitude (TROTMAN, 2014, p. 37). Taking the encounter with the spider as an example, students can have an inquisitive attitude when asking themselves: "How does the spider do that," or contemplative when mentioning, "How amazing that the spider can do that!". It is common for these experiences to first evoke inquisitive wonder and, subsequently, a contemplative look, when they are surprised by something unexpected and intriguing. Through the students' questions and statements, we were able to identify the type of wonder, contemplative or inquisitive. The statement "The sky is blue" comprises a process of contemplative knowledge, while the question "If the stars fall all the time, why do we still have so many stars in the sky?" is inquisitive.

Nature provides countless opportunities for wonder. Piersol (2004) reports that a teacher, on an excursion with the students in the middle of nature, made the following comment: "The squirrels have been using the branches of the trees as a drying rack." This information aroused numerous questions in the students: "How did they learn to do this?", "Why do they put it on the spruce tree?" and "How long does it take to dry a mushroom?" According to the author, it is not only fitting to include wonder in the curriculum, it also involves a process of unveiling what already exists in it (PIERSOL, 2013). In this direction, Schinkel (2021, p. 136, our translation) states that "the most worrying thing about the absence of contemplative wonder in the classroom is that we not only ignore its potential, but actively discourage it." Due to the excessive overload of contents and competences in the curriculum, the teacher is prevented

from encouraging enthusiasm, estrangement and a way of seeing the world as something extraordinary.

The second pedagogical resource is improvisation. Due to demands and time constraints, improvisation is key to the pedagogy of wonder. In general, more than building pedagogical trails, space is needed for students to explore their inquiries and experiences of contemplative wonder in the effective practice of the classroom. For example, a teacher was teaching Portuguese about a poem related to the fly and the frog. One student commented that the toad is the fly's predator and that it has glue on its tongue. Soon, another student told the teacher: "One day I was on a farm in the afternoon with my father and a frog was eating flies, when suddenly it ate a cicada. It was awesome! My father and I listened to the cicada inside the frog for a long time." The teacher looked at the student and replied, "Okay, let's go back to our reading comprehension activity." Certainly, the teacher had a schedule to comply with when trying to meet the demands of the school, but she ended up not valuing a key moment to trigger the process of contemplation, which, in fact, requires making room for new teaching possibilities.

It is up to the teacher to be open to explore the students' questions, by stimulating imagination, contemplation and discovery. It should thus provide opportunities for students to acquire an awareness of the object or phenomenon, an important dimension, but not necessarily present in the process of curiosity (HADZIGEORGIOU, 2012; SCHINKEL, 2021). In this sense, Hadzigeorgiou (2012) and Schinkel (2021) highlight the role of consciousness for the sense of wonder, as this knowledge construction process depends on the state of consciousness. In general, various elements of our consciousness are mobilized with the sense of wonder (HADZIGEORGIOU, 2012, p. 989, our translation):

Awareness that my knowledge is incomplete or wrong.

Awareness that there is something more to be learned.

Awareness that some phenomenon exists after all. Awareness of unexpected connections between phenomenon and ideas.

Awareness of the beauty of natural phenomena.

Therefore, experiences of contemplative wonder require an attitude towards reality that can be awakened through the curriculum, openness to dialogue and new learning routes that value moments of student encounter with situations and ideas of perplexity, surprise and admiration before the beautiful, the unexpected and the familiar. Hadzigeorgiou (2012) reports

(cc) BY-NC-SA

the first time he visited a cave with his school in elementary school. The author describes his feeling of surprise and incomprehension at rocks "with the appearance of ice or brown sugar," that is, the sedimentary rocks of stalactites and stalagmites. At that event, he describes having experienced a sense of wonder, which had repercussions on his choice of professional career. Thus, the experiences of wonder reveal processes of consciousness and sense of the individual in relation to what is of value, interest and purpose to be achieved.

But, after all, what is the impact of contemplative wonder on the syllabus and teaching practice in the classroom? Hadzigeorgiou (2012) presents research data on the integration of this type of learning in a teacher's pedagogical practice. With the help of Hadzigeorgiou, the professor identified in his discipline the ideas and potential phenomena of wonder. The researcher compared two classes from the same year of elementary school: in one class, the instruction was directed towards wonder, while in the other, the curriculum was followed normally. The instruments for data analysis were based on a pre- and post-test that were applied to students about the content of the Physics discipline. In addition, they received a diary recording the ideas that impressed them and identified as important, as well as their thoughts about what they learned and what they would like to deepen.

In the initial part of the research, Hadzigeorgiou (2012) identified potential ideas and concepts to dazzle students. Here are some examples reported by the author:

Table 1 – Potential concepts for dazzle

Selected Concepts	
Force and Motion	Newton's Third Law: Two colliding cars, regardless of the difference in their masses, experience the same force.
	Newton's First Law: There can be motion in a straight line and constant velocity, no matter how wide
	the object, in the absence of net force. That is, a spaceship can travel in a straight line for a million miles per hour and still have zero force result.
Pasta	Mass is 99.99% empty space.
	If we were to remove all the empty space in the atoms in the bodies of everyone on the planet, then every subatomic particle contained in people's bodies would easily fit into a Ping-Pong ball.
Light	Light is invisible, we cannot see it, we can only see the objects it hits. The light of objects are not the property of the object
	itself, but the result of the interaction of light with objects.

Source: Hadzigeorgiou (2012, p. 992, our translation)

The analysis of the study's results indicates that the experience of wonder has an impact on the students' perspective on natural phenomena. In the diaries, it was observed that the learning experiences that promote wonder were the sources of questions and comments present in the students' writing. The most important comments and ideas about the content of the discipline recorded in the diaries reveal experiences of wonder. In addition, when applying the pre- and post-test of the subject's content, the class where the teacher intentionally worked with the perspective of inserting dazzling experiences showed better retention and understanding of the contents. In this way, the role of wonder is to destabilize our certainties and make us review concepts and ideas about reality that ensure better conditions for learning and student engagement.

Awakening wonder means helping the student to engage in the teaching and learning process, and the teacher plays a fundamental role in order to arouse in students imagination, expression, discovery, contemplation and inquisitive processes as a guiding principle in the practices pedagogical. Also significant in the appropriation of the contemplative experience is the taking of a type of awareness that influences the moral perspective (SCHINKEL, 2021).

Contemplative wonder and moral education

Schinkel (2021) argues that when we stimulate a sense of wonder in the educational process, we can develop morally desirable attitudes in students. The author states that, "contemplative wonder can be morally important and, certainly, we should promote it as an integral part of Moral Education" (SCHINKEL, 2021, p. 126, our translation). The potential of wonder lies in accessing the world, in students perceiving, understanding and acting in it in an effective, adequate and responsible way. For this philosopher of education, wonder opens horizons for us to establish a type of relationship with the world, of appreciation and appropriation of oneself and the other, which involves cultivating actions, attitudes and emotions that aim at care, compassion and respect.

There is, in the sense of wonder, an interest in the world as something significant and important in itself, which sensitizes us to what is of value. According to Schinkel et al. (2020, p. 129), "dazzlement promotes the cultivation of sensibilities, beliefs and dispositions for an act that seeks to promote and protect life, in order to fully enjoy joy, beauty and love, as well as other forms of world importance." Moral education aims at developing a posture and attitude towards the world that values virtuous thinking and acting (PRING, 2001). This knowledge process awakens the reassessment of the importance and meaning of life, instigates to consider

alternatives and awakens attention to the intrinsic value of things, people, creatures, natural and social reality.

Schinkel (2021) considers that the moral dimension goes beyond the process of socialization of a moral code, as it implies the responsibility and responsiveness of the person towards what is of value. In this way, wonder allows us to recognize new moral experiences, as an antidote to dogmatism, as it leads human beings to contemplate the meaning of life and its value in terms of what is morally acceptable and praiseworthy. It encourages us to go beyond our egocentrism to see life as something that demands respect and care. In this way, we are impelled to think beyond the self, which encourages us to act respectfully towards the world and people. As Schinkel (2021, p. 135, our translation) expresses it, by "shunning our own desires and interests and opening ourselves to the value of another object or person, the 'logic' of wonder paves the way for compassion." The sense of enchantment and mystery caused by contemplative wonder provokes the inattention to our own interests and desires to an attitude of respect and care for all forms of life, which instigates empathy, love and compassion. In fact, it makes us think about our interpretative framework about how we want to live and how to live well. Therefore, Schinkel (2021) recognizes wonder as a mobilizing experience of moral development, by awakening a reassessment of the importance of things and by enabling the person's empathy and compassion.

Final remarks

(CC) BY-NC-SA

The excess of information and demands of today's life, as well as the social, cultural and cognitive changes provided by communication and information technologies make us trivialize our initial inclination to contemplate the perplexity of life. However, contemplative fascination allows integrating teaching practices with the possibilities of enchantment and uncertainty about reality, which promotes the reassessment of existing assumptions and alternative ways of thinking, towards a deeper sphere of sense and meaning of reality. In his theory of contemplative wonder, Schinkel *et al.* (2020) allows us to understand that this knowledge construction process awakens the recognition of the limits of human understanding for an openness and attitude of receptive attention to something that is familiar, which gives us access to new possibilities and broader and deeper conceptions of reality.

For Schinkel (2021), the apparently ordinary and trivial familiar object or phenomenon has the potential to reassess personal perspectives, by revealing the discovery of new

possibilities and sources of knowledge. Furthermore, wonder is a pathway to inquisitive experience, and inquisitive experience to wonder as an interactive process. Therefore, it is necessary to encourage the experience of wonder in educational practices in the classroom, by making room for perplexity, the appreciation of nature and phenomena of reality, as well as valuing the questions and concerns that express the wonder of students in the process of learning teaching-learning.

In order to cultivate sensitivity and readiness for wonder, teachers can be intentional about sharing their own perplexing ideas and questions. In this sense, improvisation is essential, as it gives space for students to explore the experiences of wonder, promoting new teaching and learning possibilities. Questions referring to contemplative wonder can arouse in students a genuine interest in knowing and discovering the meaning of what they are learning and identifying what is of interest and purpose, as possible paths for choosing a profession.

The philosopher of education in question considers contemplative wonder as an experience that promotes (1) recognition of the limits of human knowledge about the world; (2) the character of encounter; and (3) the opening to revelation. These facets of wonder are important, as it is based on the recognition of the limits of knowledge that we take an interest in the world, by awakening our imagination, emotion and reflection on alternative possibilities. This experience allows us to decentralize and empty the *self*, beyond ourselves, towards an object and phenomenon that affects us when we recognize its value. Schinkle (2021) says little about the object's relationship as a bearer of value, as well as the intrinsic value of the object and the notion of beauty. However, for the author, dazzle promotes a deep awareness of the object as something of value. This experience is important, as we can perceive the object in all its amplitude.

In the experience of openness to revelation, not only are we awakened to mental activities of abstraction, but we also recognize broader conceptions of reality, in which the moral dimension concerns our attitude towards the world and respect and care for humanity and the forms of life. Our author comments that contemplative wonder is a way to develop morally desirable attitudes, as it opens horizons for us to establish a type of relationship with the world of appreciation and appropriation of oneself and the other, which involves cultivating actions, attitudes and emotions that they aim at care, compassion and respect (SCHINKEL, 2021). Thinking about the limits of our existence and giving value to something beyond ourselves makes it possible to coordinate personal perspectives and the awareness and defense of the dignity of the other. In this way, we recognize new moral experiences that instigate us to act

respectfully towards the world and people. Therefore, the author's theoretical perspective on contemplative wonder in the educational context can guide the teaching practice by stimulating doubt, questioning, enchantment and imagination, as well as the expansion of new sources of knowledge, meaning and acceptance of the another in his dignity as a human being.

REFERENCES

BERKENBROCK-ROSITO, M. M.; DE OLIVEIRA, K. M. Experiência estética: autonomia e submissão tramada de medo e ousadia na tecedura da "Colcha de Retalhos". **Revista Ibero-Americana de Estudos em Educação**, v. 7, n. 4, p. 2918-2936, 2022. Available at: https://periodicos.fclar.unesp.br/iberoamericana/article/view/17455/15277 Access: 10 Feb. 2023.

D'AGNESE, V. Contrasting the neoliberal educational agenda: wonder reconsidered. *In:* SCHINKEL, A. (org.). **Wonder, education and human flourishing:** Theoretical, empirical, and practical perspectives. Holland: VU University Press, 2020.

EGAN, K., CANT, A.; JUDSON, G. (ed.). **Wonder-full education**: The centrality of wonder in teaching and learning across the curriculum. Londres: Routledge Press, 2013.

FULLER, R. C. **Wonder**: from emotion to spirituality. Chapel Hill: the University of North Carolina Press, 2006.

HADZIGEORGIOU, Y. P. Fostering a sense of wonder in the science classroom. **Research in Science Education**, v. 42, p. 985-1005, 2012.

MALPAS, J. Beginning in wonder: Placing the origin of thinking. *In*: KOMPRIDES, N. **Philosophical Romanticism**. New York: Routledge, 2006. p. 282-298.

PIERSOL, L. Our hearts leap up: awakening wonder within the classroom. *In:* EGAN, K., CANT, A.; JUDSON, G. (ed.). **Wonder-full education**: The centrality of wonder in teaching and learning across the curriculum. Londres: Routledge Press, 2013.

PRING, R. Education as a moral practice. **Journal of Moral Education**, v. 30, n. 2, p.101-112, 2001.

SCHINKEL, A. *et al.* **Wonder, education, and human flourishing**: Theoretical, empirical, and practical perspectives. Holland: VU University Press, 2020. 344 p.

SCHINKEL, A. **Wonder and education**: On the educational importance of contemplative wonder. New York: Bloomsbury Publishing, 2021. 215 p.

SCHINKEL, A. Wonder and moral education. **Educational Theory**, v. 68, n. 1, p. 31-48, 2018.

TROTMAN, D. Wow! What if? So what? Education and the imagination of wonder: fascination, possibilities and opportunities missed. *In:* EGAN, K.; CANT, A.; JUDSON, G. (ed.). **Wonder-full education**: The centrality of wonder in teaching and learning across the curriculum. Londres: Routledge Press, 2013.

WOLBERT, L.; SCHINKEL, A. What should schools do to promote wonder?. **Oxford Review of Education**, v. 47, n. 4, p. 439-454, 2021.

WORDSWORTH, W. Wordsworth. Reino Unido: Cambridge University Press, 2014.

CRediT Author Statement

Acknowledgments: I would like to thank Prof. Anders Schinkel for making his books available in English.

Financing: Not applicable.

Conflicts of interest: There are no conflicts of interest.

Ethical approval: I respected ethics during the analysis and conduction of the research, however, as it is not empirical, the research did not need ethical approval.

Availability of data and material: Not applicable.

Author contributions: Ellen Nogueira RODRIGUES is responsible for the research, analysis and writing of the article.

Processing and editing: Editora Ibero-Americana de Educação.

Proofreading, formatting, normalization and translation.

