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Understanding and cultivation of nature connectedness in China: An analysis of national moral education school textbooks for primary students

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ABSTRACT

Most of the research about nature connectedness has been conducted in Western countries and is characterised by dualism between humans and nature. This article examines how China understands and attempts to foster children's connection to the natural world. Analysis of the current moral education primary school textbooks in China reveals that the principal way in which the relationship between humans and nature is portrayed is that humans are seen as an intimate part of nature. Nature is seen as beautiful, living, mysterious and wise. The textbooks do not advocate, as Western scholars often do, taking children outdoors to experience and connect with wilderness. Instead, they guide children to 'discover nature' within their own living environment, even within human-made objects, fostering an understanding that nature is omnipresent and integral to human existence. They assert that the improvement of human life and of nature are not in tension but intricately linked.

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Introduction

Environmental education in Western societies acknowledges the importance of attitudes, beliefs and values in shaping pro-environmental behaviour, a focus that dates back to early environmental and sustainability education (ESE) frameworks, such as that of the Tbilisi Declaration (UNESCO, 1978). While these elements have long been recognised, recent research has shifted towards a more nuanced exploration of how these factors, alongside motivations, contribute to cultivating 'nature connectedness'. As many studies show, connectedness to nature is considered a key issue in nature conservation and protection (van Heel et al., 2023). It is a deep driver of concern about environmental problems and pro-environment behaviour (Frantz & Mayer, 2014; Schultz, 2002), and it is also closely related to one's environmental identity (Balundė et al., 2019). Schultz further asserted that 'the only sure path to sustainability is through inclusion—individuals must believe that they are a part of nature' (Schultz, 2002, p. 74).

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However, most of the research has been developed and conducted in Western, industrialised countries (Bruni et al., 2018; Wu et al., 2023), for in Western cultures, there is a growing concern that a 'hyper-separation' is looming, in which humans behave as a separate entity that is not reliant on its counterpart: nature (Plumwood, 2006; van Heel et al., 2023; Zylstra et al., 2014). In these nations, there is a deep-rooted tradition of dualism between humanity and the natural world, as well as between humanity and the material realm (Beery & Wolf-Watz, 2014).

This article examines how China, a nation deeply rooted in the cultural tradition of harmonising humans and nature, understands and fosters children's connection to the natural world. In Chinese primary schools, there is a standardised National Curriculum that includes Chinese, mathematics, science, English, physical education, labour, music, art, and Morality and Laws. These subjects are taught separately by specialised teachers who follow a unified curriculum. Although environmental education content is occasionally covered in subjects like science and Chinese, the heavy academic burden and intense academic competition in Chinese schools mean that teachers of science and Chinese are often too focused on teaching subject-specific knowledge to dedicate time to guiding children's values. While some schools organise environmental education activities, the heavy workload of primary school students means that these activities are infrequent, short in duration, and rarely involve systematic environmental education. As a result, the Morality and Laws course, which is part of moral/civic/citizenship education (a subject that, as we discuss below, has elements of what in the West would be understood as 'moral education', 'civic education' or 'citizenship education', and is typically taught twice a week for 40 minutes on each occasion), has become the primary method for teaching environmental education. Additionally, in order to standardise ideology, the Chinese government mandates that the Chinese and Morality and Laws subjects in primary schools must use nationally standardised textbooks. In the nationally unified Morality and Laws textbooks, one of the six major relationships addressed is the relationship between humans and nature. We therefore analyse the most recent of these textbooks in China to see how they present ideas of nature connectedness.

Literature review

In our literature review, we examine three issues: what is meant by 'nature connectedness'; how nature connectedness can be strengthened by education; and nature connectedness in different cultural perspectives.

What is nature connectedness?

The study of nature connectedness is concerned with understanding the relationship between humans and their natural environment (Sedawi et al., 2020); it often uses a psychological approach for understanding this relation (Schultz, 2002). There are also a variety of related terminologies, including emotional attachment to nature (Mayer & Frantz, 2004), environmental identity (Clayton & Opotow, 2003), environmental self-definition (Nisbet et al., 2009), inclusion of nature in one's sense of self (Schultz, 2002), sense of belonging to nature (Nisbet et al., 2009), sense of place (see e.g., Kudryavtsev et al., 2012) and environmental sensitivity (Chawla, 1998).

At present, the term 'nature connectedness' does not have a single, clear and universal definition. Some researchers hold that it refers to an individual's subjective sense of their relationship with the natural world, and have operationalised this in a variety of ways (Martin & Czellar, 2016). Other researchers emphasise interactions and experiences in nature as the elements that foster relationships between people and places (Kudryavtsev et al., 2012). Some researchers believe that nature connection (a synonym for 'nature connectedness') is a stable state of consciousness that includes symbiotic cognitive, emotional and experiential features (Freeman et al., 2015). Still other researchers believe that it is a kind of orientation and affinity towards nature, focused on enjoyment and appreciation of nature (e.g., Mackay & Schmitt, 2019).

According to the literature, 'nature connectedness' generally includes three aspects:

(1) Cognition: many researchers posit that nature connectedness primarily manifests as a cognitive and conceptual phenomenon. Individuals possessing this concept perceive themselves as an integral part of nature (Schultz, 2002) while also seeing nature as included in themselves (Fehnker et al., 2022; Schultz, 2002). Indeed, some researchers hold that nature and an individual/humanity are considered as one indistinguishable entity, resulting in a sense of 'we-ness' (Braun & Dierkes, 2017; Frantz & Mayer, 2014).
(2) Emotion: researchers have pointed out that people who are connected to nature are more likely to have a sense of intimacy with nature (Schultz, 2002), a feeling of freedom, security and oneness in nature (Kals et al., 1999), love of nature and interest in nature (Nisbet et al., 2009) and a sense of awe and wonder resulting from the natural world (Zhang et al., 2014).
(3) Behaviour: people who are nature connected spend more time in nature (Nisbet et al., 2009) and tend to show more commitment to protecting nature (Schultz, 2002).

A number of researchers have developed instruments to measure the extent of a person's nature connectedness (Mayer & Frantz, 2004; Nisbet et al., 2009; Schultz, 2002). These typically use self-reported measures of individual characteristics such as enjoyment/appreciation of nature, empathy/affinity for animals, responsibility for nature, and interest in learning about nature (Sheldrake & Reiss, 2022).

How can nature connectedness be strengthened by education?

Numerous studies have shown that nature connectedness begins developing at a young age (before the age of 12) and that childhood is a critical time in the development of a relationship with the natural environment (Chawla & Cushing, 2007; Kals et al., 1999; Lumber et al., 2017). Many educationalists have therefore incorporated nature connectedness into environmental education and consider that promoting nature connectedness should be a goal for environmental education programmes.

To promote children's nature connectedness, researchers have made a number of proposals. First, the duration and quality of children's interactions with natural environments should be enhanced, and the wilder (more natural) the environments, the better. Many studies have pointed out that direct experience of nature, such as providing

children with daily contact with nature, visiting and engaging with nature, participating in outdoor games, has a positive effect on children's nature connectedness (Collado et al., 2013; Sheldrake & Reiss, 2022). During the process of engaging with nature, researchers emphasise the importance of children's autonomy, such as providing opportunities for solitary experiences in nature and encouraging independent play (Rosa et al., 2018). Additionally, they highlight the importance for young people of supportive roles played by parents and society, including participation in summer camps immersed in natural environments (Collado et al., 2013) and events that facilitate outdoor learning about nature (Sheldrake & Reiss, 2022).

Secondly, children's nature connectedness should be strengthened through learning and knowledge, for example by reading books about the natural world and watching nature-related media (Hunt et al., 2017). Explaining that nature can be beneficial to health and/or well-being offers an initial extrinsic motivation for someone to engage with nature (Sheldrake et al., 2019). The concept of learning about, in and for the environment is a long-standing and widely accepted approach within environmental and sustainability education (ESE) (see e.g., Fien, 1993; Tilbury, 1992). While children often learn about nature through subjects like geography and science in the classroom, 'learning in nature' – through a range of activities such as programmes, field trips, and adventurous expeditions—has been more strongly associated with fostering subjective nature connection (Collado et al., 2013; Sellmann & Bogner, 2013; Sheldrake & Reiss, 2022; Stern et al., 2008).

Thirdly, children's nature connectedness should be fostered by promoting positive emotions and alleviating negative ones. Approaches include experiencing affective relationships with animals (Barthel et al., 2018; Giusti, 2019) and tackling fear in nature (Soga & Gaston, 2020).

However, these studies merely underscore the significance of children's nature connectedness and offer constructive insights, without delving deeper into reflecting on how education itself may provide children with conceptions of nature and the relationship between humans and nature. Specifically, the distinction being made here lies in contrasting two approaches: one that involves providing experiences to help children develop a connection with nature, and another that explicitly conveys a perspective of nature connectedness through structured educational content. This distinction is akin to the difference between a more experiential approach (such as nature-based activities) and a formalised educational approach (such as teaching about environmental values in the classroom through textbooks or other curriculum materials). It is also the case that relatively little research has examined nature connectedness through education systems in national contexts, particularly non-Western ones.

Nature connectedness in different cultural perspectives

Many researchers believe that people's perceptions of nature are inevitably influenced by their cultural contexts (Beery & Wolf-Watz, 2014; Wylie, 2007); whether people feel connected to nature or separate from it is an essential aspect of culture (Schultz, 2002; Sedawi et al., 2021). The concept of nature connectedness was initially proposed in the West, which has a longstanding tradition of dualism between humans and nature. Certain researchers have expressed concerns that the very notion of nature

connectedness subscribes to the deep-rooted Western idea of humans and nature as constituting a two-part relationship (Beery & Wolf-Watz, 2014). As Proctor (2009) puts it: 'Even to say that we are connected to nature/the environment itself presumes a disconnect' (p. 295). In contrast to Western culture, Chinese culture posits an inseparable bond between human and nature, as we discuss below. Examining nature connectedness through the lens of Chinese culture offers a valuable multicultural perspective on this issue.

It is worth mentioning that most of the existing research on 'nature connectedness' in China is imported from abroad to introduce and learn from foreign research (e.g., Li et al., 2018; Peng et al., 2022). But the Chinese academic community itself does not use the term 'nature connectedness', nor is there even an existing word with the meaning of 'nature connectedness'. The absence of this term does not mean that Chinese people do not attach importance to the construction of the relationship between humans and nature; rather, the absence is because, in traditional Chinese culture and values, humanity and nature are inherently one. There is therefore no need to have a term to characterise the pre-existing relationship.

In traditional Chinese culture, human beings are not considered as separate individuals, but rather as relational entities. Each person serves as a pivotal point within a network of relationships. While Western philosophy and society more generally typically emphasise individual independence and freedom (cf. the emphasis on autonomy and individual rights), Chinese philosophy and society place emphasis on each individual's obligations towards others and the collective, along with the pursuit of overall harmony. Human relationships encompass not only interpersonal (inter-human) connections but also extend to the relationship between humans and nature. Within this relationship lies an intertwined, interdependent, inseparable bond according to all three major philosophical systems in China—Confucianism, Taoism, and Buddhism. Furthermore, 'harmony between heaven and man' represents the highest state pursued by philosophers. It can be said that from the very beginning, Chinese people have lived within a conceptually connected framework rooted in nature.

However, in contemporary society, particularly following China's economic reform and opening-up policies, that began in 1978 and have continued, albeit with certain interruptions, to the present day, industrialisation, urbanisation and consumerism have gradually alienated Chinese individuals from their natural surroundings. In the relentless pursuit of economic progress, nature has been exploited to an excessive extent, resulting in a multitude of issues such as pollution, species extinction and ecological degradation. Modern Chinese children, especially the increasing proportion who reside in urban areas, are often confined to environments that disconnect them from nature, hindering their understanding of fundamental natural elements and their own connection to the natural world.

So, what kind of response and measures will China, a country with a traditional cultural concept of 'human and nature are one', put in place when facing the global modernity problem of isolation between humans and nature, as well as extensive natural degradation? Unlike Western countries, Chinese society rarely mentions 'animal ethics' or 'environmental rights', and rarely debates whether ethics should be 'human-centred' or 'non-human-centred'. China is reshaping the harmonious relationship between humans and nature by building a new human civilisation, namely 'ecological civilisation'

(Goron, 2018), a national policy proposed by the government in 2012 in response to the environmental crisis. This was followed by a series of policy documents. The government's goal is gradually to integrate the concept of ecological civilisation into the education system, from primary school to university. The Morality and Laws textbook series is part of this policy and serves as a concrete reflection of the ecological civilisation concept within moral/civic/citizenship education. The latest edition of the Compulsory Education Morality and Laws Curriculum Standards (Ministry of Education of the People's Republic of China, 2022) clearly states that ecological civilisation education is one of the core parts of the curriculum. The standards require that moral/civic/citizenship education in primary and middle schools must cover knowledge related to ecological civilisation, helping students understand the harmonious coexistence of humans and nature, sustainable use of resources, and the importance of environmental protection.

Ecological civilisation therefore appeals to human morality, expanding its scope from human society to all of nature. Chinese scholars and the government are attempting to implement this idea within environmental education, constructing an 'ecological civilisation education' system from primary school to university, and to incorporate it systematically into the national unified moral/civic/citizenship education curriculum for primary and secondary schools: Morality and Laws.

Children's attitudes and behaviours towards nature are contingent upon their conceptualisations and cognitive perceptions of nature, which are often influenced by their initial exposure to different forms of nature. Although children acquire their initial impressions of nature from the attitudes and behaviours of adults with whom they spend time, electronic media, self-experience, and schooling, including primary school (ages 6–12) moral education textbooks, provide explanations to children of what nature is. In this study, we look at how Chinese primary school moral education textbooks present 'nature' and humanity's position in nature to children.

Analytical approach

The field of textbook analysis is a large and growing one. As Weninger (2018) puts it: 'textbook analysis is a broad field that builds on multiple theories in order to investigate the cultural politics of meaning making' (p. 6). Our intention is to provide, so far as one can, a relatively objective account of the way that nature connectedness (to use the standard Western term) is presented in the current editions of Chinese moral/civic/citizenship education textbooks. Since nature connectedness is a psychological concept, previous research has predominantly focused on individuals, for example, exploring individuals' consciousness of their relationship with nature (Martin & Czellar, 2016), and their orientation and affinity towards nature (Mackay & Schmitt, 2019).

In contrast, moral/civic/citizenship education textbooks are a means of shaping specific ideas, beliefs, characters, and capacities for action in children. In the West, civic/citizenship textbooks aim at cultivating citizens in a democratic society. However, Chinese civic/citizenship education is more centred on national awareness, social order, recognition and support of national policies, and individuals' contributions to social harmony and stability. The Chinese 'Morality and Laws' textbooks can be regarded as national moral/civic/citizenship education textbooks. In English, these textbooks have been referred to as both 'National Civic Textbooks' (by Professor Gao Desheng, their

chief editor (Gao & Zhang, 2022)) and as providing a moral education course (Liu, 2023; Tang, 2022). It is not surprising that a distinction in the English language between moral and civic education does not work quite as clearly in Chinese; Huo et al. (2024) discuss how the term 'moral education' is used somewhat differently in English and Chinese. From now on we refer to them as moral education textbooks. Their core aim is to cultivate students' moral values, legal awareness, civic responsibility and social responsibility. Both the primary and secondary school textbooks help students comprehend their roles by discussing topics such as rights, duties and national institutions, thereby assisting them in recognising their responsibilities as members of society.

As a tool for fostering nature connectedness in children, we must first understand the views of nature and the relationship(s) between humans and nature that the textbooks aim to instil; then, we should analyse the educational philosophies and methods employed to convey these ideas in an attempt to ensure their acceptance by children. We therefore divided the central question of 'how nature connectedness is presented in the textbooks' into three sub-questions: (1) the conceptions of nature presented in the textbooks, including what nature is (i.e., presentations of understandings of nature) and what nature is like (i.e., presentations of the characteristics of nature); (2) the relationship between humans and nature as presented in the textbooks, which, given humanity's dominant role in this relationship, we have reframed as 'the role of humans in the relationship with nature'; (3) how the textbooks cultivate children's nature connectedness. Since the first sub-question encompasses two distinct themes: 'understandings of nature' (what nature is) and 'characteristics of nature' (what nature is like). By synthesising these sub-questions, we derived four main themes, which we identified deductively:

- Understandings of nature;
- Characteristics of nature;
- The role of humans in the relationship with nature;
- The cultivation of nature connectedness.

To organise the content in the textbooks, we took a thematic approach. The textbooks are divided into units and each unit into sections. Each section is usually taught in a single class period (lesson), which lasts about 40 min. To organise the textbook material, the first author initially collated content from the textbooks that related to human-nature themes, including topics such as environmental education, green education, and education for sustainable development, which were categorised as directly related to human-nature relationships. Additionally, there were indirect references to human-nature relationships, such as the section on 'We Have New Ways to Play' (Vol. 2B, pp. 26–29), in the unit 'Let's Have Fun', which mentions 'turning waste into treasures and creating toys by oneself'. We considered this to be indirectly related to the theme of human-nature relationships within the broader theme of 'how to play', reflecting how the textbook authors permeate human-nature themes into various aspects of children's lives.

After identifying these elements, the first author read and re-read the relevant content in the textbooks, including both the written text (titles, subtitles, and content) and images, taking detailed notes. These notes were then subjected to a coding process. We adopted a thematic analysis approach, where content was coded

according to the overarching categories or themes that emerged from the sub-questions. Specifically:

(1) *Understandings of nature*: This theme emerged from all instances where nature was defined, described or depicted in terms of its essence (i.e., what nature 'is').
(2) *Characteristics of nature*: This theme was identified through content that highlighted the physical, emotional or symbolic traits of nature, including its qualities and functions in relation to human beings.
(3) *Role of humans in the relationship with nature*: Content related to human interaction, impact and responsibility in the natural world was coded under this theme. Given humanity's central role in the textbooks, this theme focuses on how humans are positioned in relation to nature—whether as stewards, caretakers, or part of nature's cycle.
(4) *Cultivation of nature connectedness*: This theme was formed by looking for activities, methods or pedagogical strategies aimed at fostering nature connectedness in children. The emphasis was on how the textbooks encourage children to engage with and connect to nature actively.

After coding the content, the material was categorised under these four themes. The themes were then revisited to ensure that each sub-question contributed logically and directly to the development of the themes. The first author then summarised and synthesised the key concepts found in the textbooks under each of the four themes. The textbooks occasionally presented overtly designed concepts about nature, such as when they explicitly defined or described nature's role. However, other times, ideas were conveyed implicitly, often based on the cultural backgrounds of the textbook authors. For instance, there was a tendency to define nature based on local or domestic experiences, where nature is closely integrated with human life.

In our analysis, particular attention was paid to identifying concepts that diverged from commonly found Western ideas of nature connectedness. This analysis also focused on how cultural perspectives might shape children's understandings of nature in a particular context.

Once the initial synthesis was completed, the findings were discussed with the second author. Revisions and clarifications were made, based on consensus.

The textbooks we analyse are the various volumes collectively named *Morality and Laws* (Lu, et al.,). Since 2016, these books have been designated as the sole authoritative textbooks to be used in primary school (Grades 1–6, ages 6–12) in moral education across China. There are 12 volumes in total (Vols. 1A, 1B, 2A, 2B, 3A, 3B, 4A, 4B, 5A, 5B, 6A, 6B), one volume for each semester of each grade. Typically, students have two lessons of moral education per week, each lasting 40 min.

Besides students' textbooks, we also refer to the Curriculum Standards for Morality and Laws in Compulsory Education (Ministry of Education of the People's Republic of China, 2022), which outlines the ultimate objectives that courses on school moral education and their textbooks should aim to accomplish. We also consulted teachers' reference books (Lu et al.,), which outline the subjects to be taught and the methods for teaching them. These reference books provide insight into the conclusions that teachers are expected to help students reach through the examples and discussions presented in

the textbooks. They are particularly useful when the textbooks' intended interpretations are somewhat ambiguous.

We have also read and make use of interpretative papers authored by the principal editors of Chinese moral education textbooks, gaining insights into their underlying ideologies, objectives, and design principles regarding the compilation of the textbooks.

Findings

Across the 12 books, there are four units with a total of 13 sections that directly pertain to environmental education (the relationship between humans and nature), as indicated in Table 1.

In addition to content that directly relates to the relationship between humans and nature, there is content that is indirectly related to this relationship. In fact, the textbook does not discuss the relationship between humans and nature in isolation, but takes 'children's lives' as the main line of approach, and then includes material on the relationship between children and nature in (a) 'children's living world' and (b) 'children's expanded life', namely public life. Table 2 indicates where material on children's daily life is included in *Morality and Laws* and Table 3 indicates where material on children's public life is included.

We now present our findings under our principal headings of 'Understandings of nature', 'Characteristics of nature', 'The role of humans in the relationship with nature' and 'Cultivation of nature connectedness'.

Understandings of nature

What is nature? The textbooks focus on children's lives, guiding them to understand nature through specific objects and places around them.

First, nature is an integral part of children's lives. In contrast to many Western scholars (e.g., Braun & Dierkes, 2017; Collado et al., 2013) who advocate exposing children to wildness in order to establish nature connectedness, Chinese moral education textbooks assert that humans have never been disconnected from nature; regardless of where humans reside, they are always living within it. The primary

Table 1. Volumes, units and sections in *Morality and Laws* (Lu et al.,) that contain material directly related to environmental education.

Volume	Title of unit	Title of section
1B	Nature and I	The Wind Blows Gently
		The Beauty of Plants and Animals
		Lovely Animals
		Thank you, Nature
2B	Little Green Guard	The Story of the Little Water Droplet
		Fresh Air Is a Treasure
		I'm a Piece of Paper
		My Eco-buddy
4A	Make Life Greener	What We Know About Environmental Pollution
		There Are Ways to Turn Waste into Treasure
		Low-carbon Life Every Day
6B	Caring For the Earth Is Everyone's Responsibility	The Earth—Our Home
		Response to Natural Disasters

Table 2. Volumes, units and sections in *Morality and Laws* (Lu et al.,) that contain material indirectly related to environmental education that is integrated into children's daily life.

Volume	Title of unit	Title of section
1A	The Weather is Getting Colder	Beautiful Winter
		Healthy Winter
1B	I Love My Home	Let Me Tidy Up Myself
		Doing Some Housework
	My Good Habits	We Love Tidiness
	Nature and I	The Wind Blows Gently
		The Beauty of Animals and Plants
		Lovely Animals
		Thank You, Nature
2A	Where We Live	I Love the Mountains and Waters of My Hometown
		The Produce of My Hometown Nourishing Me
2B	Let Me Try	Try to Plant a Seed
	Let's Have Fun	We Have New Ways to Play
	Little Green Guard	I'm A Piece of Paper
		My Eco-buddy
3A	I Grew Up Here	My Home Is Here
4A	Kaleidoscope of Information	Correct Understanding of Advertising
	Make Life Greener	There are Ways to Turn Waste into Treasure
		Low-carbon Life Every Day
4B	Be a Smart Consumer	I Want It, I Can Have It
		How Much Waste Could Have Been Avoided?
	Where Does the Good Life Come From?	Our Bread and Butter
		Where Did All This Stuff Come From?

Table 3. Volumes, units and sections in *Morality and Laws* (Lu et al.,) that contain material indirectly related to environmental education that is integrated into children's public life.

Volume	Title of Unit	Title of section
1A	Campus Life Is So Happy	Our Campus
2A	Our Class	Decorate Our Classroom
	I'm In a Public Place	These Are For Everyone
		We Don't Litter
2B	Little Green Guard	The Story of The Little Water Droplet
		Fresh Air Is a Treasure
3A	Our Campus	Let's Make Our Study Better
3B	Our Public life	Everyone's 'Friend'
4A	Make Life Greener	What We Know About Environmental Pollution
5B	Public Life Depends On Everyone	I Participate, I Contribute
6B	Caring For the Earth Is Everyone's Responsibility	The Earth—Our Home
		Response to Natural Disasters

objective of these textbooks is to guide children towards recognising that their existence cannot be separated from nature—humans and nature are one. Nature permeates every aspect of children's lives. For example, in the story 'Me and the little tree' in the Grade 1 textbook, the nurturing care of a small tree is described, from planting and watering in spring to providing support in summer and 'dressing' it in winter. From planting trees to nurturing their growth and finding shade under big trees, trees are seen as part of the human living world. Protecting trees is therefore essentially safeguarding one's own living world, as exemplified by the 'Let's celebrate the Spring Festival together' (Vol. 1A, p. 63) section which features both snowflakes and Spring Festival couplets; natural features and cultural traditions combine to form the landscape of the Chinese New Year.

Second, nature is presented as specific things and places. In society, nature is often perceived as an abstract concept, making it challenging for children to establish a connection with it. To address this issue, the textbooks specify the notion of nature by focusing on familiar natural objects and phenomena in children's daily lives, such as mimosa plants, snails, ants marching in lines, and jumping grasshoppers. Additionally, human-made objects, like pieces of paper, are included to illustrate the interconnectedness between humans and their environment. Nature also manifests as a specific geographical location, such as the garden in the community where urban children live, the bamboo forest behind the village where rural children live, as well as 'my campus' and 'my hometown'. The textbook expects children to establish a natural connection with these places around them.

Characteristics of nature

Nature as beautiful

First, the textbooks emphasise the primacy of aesthetics in nature, prioritising beautiful nature over utilitarian nature. For instance, animals are depicted primarily as adorable creatures, rather than, for example, pigs for meat consumption and cows for ploughing fields. The changing of the seasons is portrayed not solely in terms of planting and harvesting crops (Vol. 2A, pp. 52–56), but rather as each season possessing its own inherent beauty. The beauty of winter lies in frozen rivers, frogs hibernating and a world blanketed in white snow (Vol. 1A, p. 53). 'Summer's gifts are the scorching sun and the chirping of cicadas, thunderstorms and rainbows' (Vol. 2A, p. 2). The textbooks utilise aesthetic images and poetic language to depict nature, aiming to guide children to perceive nature with a spirit of free aesthetic appreciation. As children grow older, the textbooks, from the second semester of Grade 4, sometimes address issues related to the utilisation of nature. However, during a child's formative years, the initial concept instilled in their minds is that nature is meant to be appreciated.

Second, the textbooks emphasise that nature is fun. Play is an aesthetic activity and represents a childlike form of appreciation of nature. For example, in the section 'Beautiful Winter' (Vol. 1A, pp. 52–55), children are encouraged to discuss 'What's fun about winter?'. For children, simply admiring the snow from the warmth of indoors does not capture the beauty of winter; instead, it is the joy of playing in the wind and snow that embodies the beauty of winter. Similarly, in the section 'The Wind Blows Gently' (Vol. 1B, pp. 18–21), the textbook guides children to 'play with the wind', helping them recognise that even the most ordinary natural phenomena can be enjoyable. Playing is a way for children to engage with nature intimately. Through play, children can explore and experience nature more deeply and authentically. Play can also be an investigative activity: 'Gently touch the leaves of a sensitive plant, and it will close; place a small piece of biscuit and attract ants to come and grab it' (Vol. 3A, p. 25). It is through play that children can penetrate beyond the familiar surface of natural objects and enter the mysterious world within.

Kant said:

> Now I say the Beautiful is the symbol of the morally Good. By this the mind is made conscious of a certain ennoblement and elevation above the mere sensibility to pleasure received through sense, and the worth of others is estimated in accordance with a like maxim of their Judgement. (Kant, 2015, p. 388)

Although the textbooks do not directly engage in moral education, by guiding children to experience the beauty and joy of nature they try to purify the mind and open up the possibility of a reciprocal relationship between humans and nature.

Nature as alive

The textbooks depict nature as possessing a 'living existence', akin to humans. According to these textbooks, humans and nature share a symbiotic relationship where they are intricately interconnected.

'Living nature' primarily refers to the flora and fauna on Earth. 'Flowers and grasses germinate, blossom, and bear fruit. Seeds fall to the ground, sprouting new shoots . . .' (Vol. 1B, p. 22). For plants, life manifests as 'self-growth'. Through activities such as planting a seed and observing seasonal changes, the textbooks enable children intuitively to appreciate that life entails self-growth and cyclical autonomous changes. Animals, on the other hand, are vibrant beings akin to children themselves. The textbooks anthropomorphise animals, with no distinction or boundary between humans and non-human animals in the materials for the lower grades. Animals are portrayed as 'my companions' and 'my friends'. For instance, in the section 'Lovely Animals', the textbook utilises images depicting a child playing and conversing with a kitten, while inviting children to share their own experiences of interacting with animals and contemplate the shared attributes and interconnections among different life forms.

'Living nature' also refers to the 'living Earth'. The textbooks indicate that the air, soil, water and other non-living components on Earth, along with living organisms, form a vibrant ecosystem. Regarding water, 'I traverse mountains and rivers, and the mountains and rivers turn green. I flow into the fields, and seedlings grow . . . I am the lifeblood of the Earth' (Vol. 2B, p. 35). Concerning the air, 'air is a precious asset of the world of life, indispensable at every moment' (Vol. 2B, p. 38). Non-living components serve as the 'source of life', together with flora and fauna, constituting a lively ecosystem. 'Living nature' also embodies a philosophical intention, viewing rivers, mountains, the Earth and seasonal changes as manifestations of life. The entire natural world represents a self-generating, self-cycling organism. For instance, the description of the motherland in the Grade 5 textbook includes 'towering mountains, majestic plateaus, a basin surrounded by mountains, and vast plains, all imbued with the vitality of life, encompassing the rich cultural charm of the Chinese nation' (Vol. 5A, p. 48). The description of the Earth in the Grade 6 textbook states, 'In the vast universe, there is a blue planet nurturing life' (Vol. 6B, p. 28). In summary, the textbooks aim to show children that the Earth is a 'living Earth', that our place of residence is a vibrant home, rather than a mechanistic material space.

'Living nature' is also inherently 'fragile nature'. The textbooks illustrate the fragility of natural elements such as a tree, the fragility of natural ecosystems, and the fragility of the entire Earth. This serves as a call to children to 'protect the ecological environment as they protect their eyes, and treat nature as they would their own lives' (Xi, 2019).

Nature as mysterious and wise

'Being curious about the surrounding environment and actively exploring nature and the surrounding environment' is one of the goals stipulated by the Chinese primary

school moral education curriculum standards (Ministry of Education of the People's Republic of China, 2022). The purpose is to cultivate a 'scientific spirit' of seeking truth about nature. However, 'exploring nature' does not entail treating nature as a mechanistic material phenomenon, only analysing it quantitatively or dissecting it in a laboratory to force it to reveal its secrets. Instead, the textbooks present to children a mysterious and wise nature, guiding them to discover and understand nature, to emulate and to adapt to nature.

First, the textbooks guide children to use their five senses to experience nature and discover its mysteries. For example, in the section 'Thank You, Nature' (Vol. 1B, pp. 30–32), there is a section called 'Nature's Language', where, by observing phenomena such as clouds, ants, tadpoles and wild geese, children can predict changes in the weather. The textbooks encourage children to observe carefully, listen attentively and taste discerningly, to discover the secrets of nature.

Secondly, the textbooks also encourage children to 'think creatively and gain inspiration from nature'. For instance, in the textbook for the first semester of Grade 3, there is a section titled 'The Legend of the Dai Bamboo House', which narrates how the Dai youth, Paya, was inspired by seeing rainwater flowing down along the fur of a dog to construct a sloping shelter; and upon witnessing a phoenix standing on one leg and flapping its wings, he was inspired to design and build a bamboo house (Vol. 3A, pp. 52–53). This conveys to children the concept that nature can be humanity's teacher, aiding humans in creating a better life.

In conclusion, the 'scientific spirit' of exploring nature advocated by the textbooks is based on the traditional Chinese philosophy of nature, which regards nature as a mysterious and inexhaustible treasure trove of wisdom. It encourages children to explore nature with awe, gain inspiration from nature, and learn from nature.

The role of humans in the relationship with nature

Individuals who appreciate and love nature

The two characteristics of nature mentioned above—'The beauty of nature' and 'the joy of nature'—evoke a sense of connection in individuals who appreciate nature and in children who play in nature. In the 'Thank you, Nature' (Vol. 1B, pp. 30–32) section, the textbook not only showcases the gifts of nature (various natural resources) but also specifically highlights the 'joy in nature', guiding children to recognise and experience the happiness that nature brings. For example, 'The earth grows green hair, and I comb it with my toes. The grass tickles and giggles, kissing my little feet. I also giggle, holding my belly with laughter.' (Vol. 1B, p. 33) represents the pure joy that can emerge when utilitarian motives are stripped away, fostering a relationship between humans and nature based on aesthetic appreciation. Although the textbooks guide children to experience the beauty and joy of nature without directly imparting moral education, they seem intended to cleanse the mind and foster an open relationship between humans and nature.

Individuals who coexist with nature

Nature is alive; therefore, humans coexist with nature. The textbooks also reveal the symbiotic relationship between humans and nature. In the Grade 2 textbook, it is stated

that 'local products nurture me'; in the Grade 5 textbook, it is mentioned that 'the motherland's mountains and rivers nurture me'; and in the Grade 6 textbook, we read that 'the Earth nurtures life and nurtures me'. From close to far, emphasis is placed on nature's nurturing role toward 'me'. In the section 'The Earth—Our Home' in the Grade 6 textbook, the Minamata disease incident in Japan is cited to illustrate a relationship of coexistence: 'Humans discharge untreated wastewater—pollute seawater—fish and shrimp become poisoned—humans become ill after consuming fish and shrimp' (Vol. 6B, p. 31). This emphasises that humans and nature form an interdependent community of life, and harming nature is akin to harming ourselves.

Individuals who protect and improve nature

In the textbooks, nature is portrayed as 'humanised nature' in children's lives, and humans are depicted as individuals capable of improving nature according to their needs, creating a beautiful living environment. In the process of improving nature, humans are not arbitrary masters but possess rational capabilities to adapt and care for nature.

Such individuals are first able to dialectically perceive (i.e., see things from a range of perspectives) and transform nature. The textbooks reject extreme environmentalism and nature romanticism, striving to develop children's rationality. In the lower grades, the textbooks point out the dangers hidden in the beauty of nature, such as the risk of frostbite and colds in winter. Therefore, 'playing in the snow while remembering to prevent frostbite' is a rational behavioural choice for children. In the higher grades, children need to learn to dialectically approach the concept of 'conquering and transforming nature'. For example, in the section 'What We Know About Environmental Pollution' (Vol. 4A, pp. 72–79), the textbook presents children with a dilemma: plastic is a great invention widely used in daily life, but it has led to 'white pollution' (i.e., pollution resulting from white plastic shopping bags, Styrofoam containers and other light-coloured objects). Through a dialectical and comprehensive analysis of this dilemma, it is concluded that the rational choice for society is to 'reduce plastic' rather than 'ban plastic'. Developing children's dialectical thinking is about confronting reality and achieving a balance of 'good' in complex real-life issues.

Furthermore, such individuals are also able to perceive the fragility of nature and thus protect nature. At lower grades, the textbooks highlight the fragility of life, where 'protecting nature' means promoting life. For example, in the story 'The Little Tree and Me' in the Grade 1 textbook, the nurturing care of a small tree is described, from planting and watering it in spring to providing support in summer, 'dressing' it in winter and preventing other children from harming it. Additionally, in the section 'Lovely Animals', the textbook includes a section titled 'What It Really Means to Care'. Through episodes such as 'the goldfish died because it wasn't taken care of', 'building a nest for the bird' and 'guiding the little dragonfly home', it encourages children to care for animal life. At higher grades, the textbooks point out the fragility of the entire ecosystem, with issues such as plastic pollution, pesticide damage, garbage pollution and climate warming requiring everyone to take action, starting with themselves, by practising daily habits, such as reducing plastic use, adopting low-carbon lifestyles and sorting garbage into various categories, to protect the balance of the entire ecosystem.

Cultivation of nature connectedness

Discovering nature in daily life: Cultivating children's natural sensitivity

From a cognitive perspective, the textbooks attempt to break the notion of separation between the 'human world' and the 'natural world', discovering nature in children's lives, understanding nature and cultivating children's natural sensitivity, so that children realise that they live in nature regardless of where they are.

First, we can discover nature around us. The nature depicted in the textbooks comprises the most common natural objects and phenomena in children's lives. For example, in the unit 'Nature and I' (Vol. 1B, pp. 18–33), the textbooks choose wind, a natural phenomenon that every child can personally experience, to illustrate the relationship between humans and nature. By understanding the invisible, intangible and ubiquitous wind, children come to realise that nature is omnipresent. The textbooks guide children to recognise 'beautiful nature' and 'joyful nature', which are simply the common plants and animals found around children, such as the 'shy' (sensitive) *Mimosa pudica*, a snail, ants in line, and hopping grasshoppers. Through careful observation, attentive listening, in-depth exploration and appreciation of fun, children can overcome their indifferent and oblivious attitude toward 'nature around them', cultivating a mindset that can discover nature, beauty and life.

Secondly, we can discover nature within human-made objects. Our living environment is composed of buildings, furniture, daily necessities and consumer goods. These 'human-made objects' provide us with a habitable living environment but also disconnect us from direct experience of nature, to the extent that children in cities may believe that their necessities come solely from supermarkets. The textbooks help children break through the barriers of the human-made world, enabling them to discover nature within human-made objects and indirectly realise that 'I live in nature' and 'I cannot live without nature'. For example, in the unit 'Where Does the Good Life Come From?' (Vol. 4B, pp. 52–71), the textbook guides children to explore the origin of things and understand the source of various items in life, recognising that every item in life comes from some plant, animal or non-living component of nature. Children investigate basic industries, such as agriculture, forestry, fisheries and animal husbandry, to understand the processes by which people obtain resources from nature. They learn about the journey of a bowl of rice or a piece of clothing from its origins in nature to its use in the human world, appreciating the hard work of people in nature. Children are therefore helped to see both nature and human effort within human-made objects, preventing them from taking everyday items for granted.

Furthermore, we can cultivate children's sensitivity to environmental destruction. While 'discovering nature' in daily life, it is also crucial to recognise behaviours that harm nature. For instance, in the section 'I'm a Piece of Paper' (Vol. 2B, pp. 42–45), after learning about the origin of paper, the textbook lists actions such as making a paper airplane using brand new, unused white paper or purchasing excessively packaged goods, both of which harm nature. The textbooks guide children to reflect on their lifestyle choices and enhance their environmental awareness.

Cultivating children's emotional connection to nature

The textbooks attempt to build an emotional connection between children and nature. This emotional connection is an affection, attachment and sense of belonging to nature.

The idea is that when children regard nature as their beloved home, protecting nature becomes a natural responsibility.

At lower grades, the textbooks mainly guide children to become close to specific elements of nature. By showcasing the 'feet' of ivy or the seeds of dandelions, the textbooks encourage children to explore nature deeply; displaying a few fallen leaves, or a few rocks, they encourage children to play in nature—by showcasing activities like snowball fights in winter, catching cicadas in summer and going on outings in spring, they guide children to experience joy in nature. Nature is presented as both fun and mysterious, and these initial experiences of life are intended to make children emotionally close to nature and fond of it. As students grow older, in middle and upper grades, the textbooks integrate nature into the places where children have grown up, such as their communities, hometowns and school campuses, seeking to cultivate children's emotional attachment to places. A small river in front of the village, a small bamboo forest behind the village, a green space in the neighbourhood, a small garden on the school campus, these simple and everyday natural landscapes constitute the authentic living world for children. Through the gradual accumulation of contact, these places have the potential quietly and profoundly to permeate children's emotions. Nature is not presented as a distant abstract existence; it is our beloved home. Any great emotion originates from a trickle of affection, and a deep sense of responsibility for the ecological environment and the Earth can derive from our deep affection for a piece of familiar, local land.

Cultivating children's environmental action capability

From an action perspective, the textbooks not only focus on the issue of 'willingness to act' but also pay attention to the issue of 'ability to act'. The textbooks recognise that environmental issues often appear overwhelmingly complex, leaving individuals feeling powerless to effect change. Because of this powerlessness, individuals often choose to shut down their emotions and ignore the problems. The textbooks focus on children's environmental action capabilities in their living world, by cultivating children's awareness and ability to exert influence and improve their environment, encouraging them to become 'moral actors' in environmental issues.

First, there is material capability, which refers to children's ability to improve their physical environment according to their own wishes, making it more habitable. For example, in the section 'Let Me Tidy Up Myself' (Vol. 1B, p. 42), the textbooks guide children to clean and tidy their rooms through labour, making these 'sparkling clean'; in the section 'Decorate Our Classroom' (Vol. 2A, pp. 30–33), children can design and decorate the classroom themselves, making it more beautiful. These activities not only enhance children's ability to improve their material lives but also help instil in them the awareness and confidence that 'I am the master of my environment'. The textbooks also advocate 'creating by hand' rather than acquiring items through making purchases. For example, in the section 'We Have New Ways to Play' (Vol. 2B, pp. 26–29), the textbooks guide children to make toys using old cardboard boxes, leaves, rocks and scraps of cloth, fostering innovation and creativity. This approach is not only environmentally friendly and thrifty but also helps children experience a sense of self-efficacy in the material world. Material capability is the most basic 'environmental capability', and as children grow older and broaden their horizons, this awareness and taking the initiative to improve the environment can extend to the improvement of the natural environment.

Secondly, there is public capability, which refers to children's ability to influence others and society more generally on environmental issues. For example, after learning about 'white pollution', the textbook requires children to develop a 'family plastic reduction plan' and promote this plan among relatives and friends (Vol. 4B, p. 75). In the section 'There Are Ways to Turn Waste into Treasure', the textbook also proposes the expectation of 'educating a child, influencing a family, driving a community and promoting the whole society' (Vol. 4A, p. 86). By influencing the activities of others, children can further strengthen their environmental beliefs and enhance their initiative in respect of environmental issues. As future global citizens, children also need to acquire awareness and capabilities to participate in public life and influence public affairs. The textbooks set activities such as 'investigating environmental pollution around us', 'calculating the daily production of garbage in school', 'formulating a class environmental protection agreement' and 'promoting clever ways of garbage classification in the community', allowing children to engage deeply in social life, understand the reality of environmental issues and contribute to public environmental improvement as much as possible. When children are capable of these activities, they will see themselves as empowered individuals, believe in their ability to take action on environmental issues, and transcend being mere bystanders, becoming proactive 'environmental stewards'.

Discussion

Through an analysis of Chinese primary school moral education textbooks, we can see the complete integration of humans and nature. van Heel et al. (2023), in their literature review on nature connection, identified three types of connectedness regarding the extent and manner in which humans are connected to nature: intertwined (humans and nature as separate yet related entities), including (one as part of the other), and indistinguishable (as one entity) (Figure 1).

The relation between humans and the natural environment within Chinese moral education textbooks falls under the third category. Within these texts, the dichotomy between humans and nature, and between artificial and natural worlds, is scarcely observed. Nature is not understood as another world, separate from human civilisation; instead, it permeates 'everywhere' within daily human life. It encompasses not only the organisms (biotic) and physical (abiotic) environment found in the wilderness but also the trees and other plants cultivated by people in parks, gardens and school grounds. It extends to natural phenomena such as the wind and even manifests within human-made

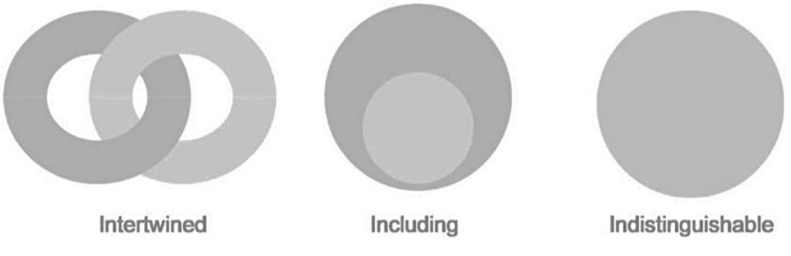

Figure 1. Three types of connectedness with nature (van Heel et al., 2023).

objects, such as a piece of paper. Chinese moral education textbooks also endeavour to concretise nature as specific natural entities (such as a spider or a grasshopper), artificial objects (such as a school bag) and particular locations (such as school grounds) around children. It can be argued that the concept of nature in Chinese moral education textbooks is framed as 'nature in everyday life'.

The concept of 'nature in everyday life' encapsulates the intricate and multifaceted integration between humans and nature. Nature is not perceived as an abstract, distant and seemingly silent entity; rather, it is concretised into the tangible objects and localities that surround us. Furthermore, the 'nature in everyday life' concept effectively incorporates the complexities of the human-nature relationship into the daily lives of children. By embedding the grand and abstract theories of environmental philosophy and ecological ethics into the realm of everyday experiences, children can attain a deeper understanding of these extensive and abstract notions through their sensory interactions with specific natural elements in their immediate surroundings. The concept of 'nature in everyday life' also contributes to fostering children's emotional connection with nature, particularly by cultivating a deep sense of affection and attachment that arises from familiarity. It could be argued that there is a certain similarity here to recent, largely Western, posthuman conceptions of animal-human relationships (e.g., Taylor, 2016) and new materialist understandings of the environment (Clarke & Mcphie, 2020).

The editors of these textbooks have a focus on children's lives. The main objective of the curriculum is to promote children's well-being, encompassing both individual and communal aspects of a good life (Ministry of Education of the People's Republic of China, 2022). Issues regarding the relationship between humans and nature are not only pertinent to individual well-being but also to global, communal well-being. By centring on 'children's lives', the textbooks assert that the improvement of life and the improvement of nature are not contradictory but intricately linked, unified within the fundamental capability of children's 'material competence'.

Regarding learning from nature, Western societies often propose three approaches: learning about, in, and for nature (Fien, 1993). Chinese textbooks rarely mention 'learning in nature', with only a reference in the section 'Learning Accompanies My Growth' in the Grade 3 textbook, which mentions that 'learning by observing plants and insects in nature' is an important way of learning (Vol. 3A, p. 9). This may be because the Chinese believe that humans naturally live within nature, and there is no need to specifically go into wild nature to learn. However, Chinese textbooks emphasise 'learning from nature'. Many ancient Chinese technologies were derived from 'learning wisdom from nature', and the textbooks highly praise the wisdom of ancient technologies, considering them environmentally friendly innovations.

However, while this view aligns with an 'indistinguishable' form of nature connection, we must acknowledge that the textbooks also present nature from a human-centred perspective. This duality may seem contradictory: on the one hand, nature is depicted as integral to the human world, seamlessly interacting with humans' daily lives; on the other hand, the perspective still centres human experiences, suggesting an anthropocentric view. Authors like Lumber et al. (2017) argue that anthropocentrism contradicts the essence of nature connection, which seeks to dissolve the separation between humans and nature.

This apparent contradiction between the textbooks' human-centred nature connection and the 'indistinguishable' human-nature relationship requires further clarification. The textbooks may portray nature as inherently integrated with human life, but this integration is often framed in terms that prioritise human needs, experiences and values. In this way, while the relationship between humans and nature is presented as seamless, an underlying human-centeredness still shapes how nature is understood and interpreted.

In this context, the concept of the ecological self offers a powerful tool for understanding the deeper connection between humans and nature. The ecological self is based on the idea of open continuity, meaning that the relationship between humans and nature is not fixed but instead evolves through shifting perceptions and ethical responsibilities. The ecological self emphasises an understanding of self that requires revising traditional boundaries between 'self' and 'other', as pointed out by eco-feminists (e.g., Kretz, 2009). According to Plumwood (2002), to truly understand the intimate connection with nature, we must redefine our relationship with the environment and integrate the otherness of nature into the construction of the self.

The Chinese government's concept of ecological civilization has some relationship with this view as ecological civilization is intended to represent a new form of human civilization, following earlier primitive, agricultural and industrial civilizations. It aims to transcend industrial civilization, which is characterised by the destruction of nature for the sake of production. Ecological civilization seeks to rebuild a developmental path that promotes both production and a prosperous, ecologically sound life.

The textbooks' failure to focus on 'wild nature' misses the spontaneous and autonomous aspects of nature—elements that transcend human influence. In today's context, where almost no animal, plant or landscape is untouched by human influence, there remains an aspect of their existence that is not considered a product of human creation, but there remains an 'otherness' (Bonnett, 2012) to nature that is not a product of human creation. This 'otherness' is key to establishing a meaningful connection with nature because it represents an aspect of nature that exists beyond human will and control. Interacting with this 'other' nature can enable individuals to transcend their egos and become aware of their coexistence with natural entities.

The ecological self perspective helps break down the traditional binary of humans and nature, leading to a deeper understanding of the relationship between the two. This perspective does not position humans as mere users or controllers of nature but promotes a reciprocal, respectful and interdependent relationship. Caring for nature from this viewpoint comes not only from a functional understanding of nature but from recognising its autonomy and mystery.

Therefore, a truly meaningful connection with nature requires sensitivity to the inherent autonomy and transcendence of places and natural objects. Such an understanding can lead to a non-anthropocentric model of nature care, contributing wisdom to the construction of ecological civilization.

Furthermore, the textbooks attempt to guide children to discover a beautiful, enjoyable, living, mysterious and wise nature. Correspondingly, individuals are portrayed as those who appreciate and love nature, coexist with nature, learn from nature and strive to improve and protect it. However, it could be argued that this fundamental concept regarding the relationship between humans and nature is

indoctrinatory and authoritative. Although the authors of the textbooks place significant emphasis on presenting children's own *experiences* with nature, they do not prioritise children's own *perspectives* on nature. As a consequence, for instance, if a child's experience of nature in their life is not beautiful or enjoyable but rather polluted and unpleasant, they are not given space in moral education lessons to express their views about 'a different kind of nature'. Chinese moral education textbooks seem to emphasise imparting a set of values to children rather than engaging in debates and discussions and respecting children's own viewpoints on these values. In terms of what teachers might do when teaching about the environment in circumstances where students do not have positive experiences of nature, there is a growing international literature on urban environmental education, from China and elsewhere (e.g., Laffitte et al., 2022; Vieira et al., 2022), that might be of value.

It is also the case that Chinese moral education textbooks do not distinguish between a 'healthy' environment and an 'unhealthy' environment. If a child lives in a severely polluted environment, or if another child lacks direct contact with natural elements altogether, given that the textbooks insist that nature is inherently part of human living environments, both children are likely to develop a distorted concept of nature. All of us construct a conception of what is environmentally normal based on the natural world we encounter in our childhood (Kahn, 2022).

In conclusion, the textbooks follow the principle of moral education, attempting to guide life, transforming the abstract relationship between 'humans and nature' into the concrete relationship between 'humans and objects around us' and 'humans and everyday items', translating the grand narrative of 'global environmental pollution' into daily life events of 'conservation and waste of daily items'. In so doing, they present a distinctly non-Western conceptualisation of nature, one that exists not in opposition to humanity but indistinguishable from it. Unlike Western pedagogues who advocate outdoor, ideally distant, experiences as a way of learning about nature, these textbooks guide children to discover nature within their immediate environment, even within human-made objects, fostering an understanding that nature is omnipresent and integral to human existence. Confronting environmental crises, the textbooks start from children's daily lives, encouraging them to protect nature by conserving a small sapling or not discarding a piece of paper. The intention is that children establish intimate emotional connections with the nature around them. This view of nature aligns with the growing Chinese emphasis on ecological civilisation education. Our hope is that our study, the result of a collaboration between a Chinese academic and a Western academic, will prove to be of interest and value for both Chinese and Western scholars in providing an analysis of how official Chinese primary school textbooks understand and attempt to foster children's connection to the natural world.

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