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Nature living in, from, with, and as people: exploring a mirrored use of the Life Framework of Values[☆]

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The Life Frames of Values, recently endorsed by Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, articulate four different ways nature matters to people living in, from, with, and as nature. These frames distinguish value perceptions of, and ways to communicate about, the living world. We look to expand understandings of nature in the Life framework by exploring whether the Life Frames could be mirrored to capture how the more-than-human natural world may relate to people. We explore 1) how nature living in, from, with, and as people could be understood, and 2) whether two-way nature–people value frames add value to the framework and current sustainable development discourse. While ‘living from’ and ‘living with’ can be symmetrical two-way relations, the ‘living in’ and ‘as’ have a directional point of reference. The four ‘mirrored’ frames may contribute meaningful nuances and clarification to the existing framing of people–nature relations, while raising questions for further exploration in science and policy.

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Introduction

‘As simple as possible, but no simpler’ is a ground rule for communication that is particularly challenging for biodiversity in the Anthropocene [1]. The nested and interacting aspects of nature live in and use all parts of the world’s wilderness-to-city continuum as a habitat. Nature, the more-than-human living world, and people interact on a wide range of matters, including food, water, climate, health, security, identity, rights, morality, and peace. Finding an effective, simple framing that helps communicating about, slow and reverse, the current global biodiversity crisis is part of a trial-and-error learning loop. Messages and ways of representing them that are useful for some can be contested by others and need subsequent refinement or reimagining [2].

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In the Kunming-Montreal Global Biodiversity Framework adopted in December 2022 [3], Member Countries of the Convention on Biological Diversity (CBD) agreed, within their national circumstances, to “Ensure and enable that by 2030 at least 30 per cent of terrestrial, inland water, and coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures, recognizing indigenous and traditional territories, where applicable.” Where the CBD speaks of biodiversity and ecosystem services, demarcations for ‘people’ and ‘nature’ are a highly complex political and normative task [4].

A generic use of ‘people’ obscures the extremely unequal social dynamics that relate to the ecological crisis and degradation of ‘nature’. Equally, a generic use of ‘nature’ obscures a huge diversity of meanings that word is understood to refer to. The Global Biodiversity Framework marks progress in ‘recognizing indigenous and traditional territories’, building on the seminal analysis of the crucial role that around 5% of the global population who identify as Indigenous hold for what is left of global biodiversity [5]. A more nuanced understanding of both sides of the human-nature relationships is needed to ensure such inequalities are not overlooked or exacerbated in policy frameworks. The way in which ‘nature’ is constructed, and by whom, can itself determine which human-nature relationships, livelihoods, cultures, and values are supported or marginalized through policy frameworks, governance systems, and institutions.

Values of nature are perceived, communicated, and debated in many ways. The recent Values Assessment of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) [6] described many aspects of value of nature to humans, but kept a generalized, all-inclusive perspective on what nature is in this respect, implicitly covering the wilderness-to-urban spectrum. It did not specify how varying human practices, activities, and management approaches affect other forms of life, a central issue for the Global Biodiversity Framework.

Two decades ago, through the Millennium Ecosystems Assessment [7], ecosystem service framings focussing on the benefits people derive from nature, helped to bring new impetus for ecological conservation. The impetus was partly because it allowed for monetary valuation of these services in decision-making processes. Simplified units expressing the benefits generated by ecological processes and structures in different biomes have been used to quantify and communicate these benefits, often standardized allowing for comparison across areas and

biomes (e.g. [8]). Despite the increasing prominence of the ecosystem service language in science and policy, the search for alternative and additional concepts continued [9]. The jury is out on the degree to which the repackaging of ecosystem services as Nature’s Contributions to People (NCP) changes the game [4]; some expected the new terminology and its reference to ‘Nature’ to be more inclusive of other perspectives, others contested that its rewording from services to contributions was mostly wordsmithing and maintained the ecosystem service bias toward anthropocentric and human/nature dualistic worldviews [10–12]. Where ecosystem services mostly referred to ‘instrumental’ values (nature’s value toward human ends, such as in nature-based solutions), the NCP framing broadened the cultural service part of ecosystem services that was more challenging to align with instrumentalism [13], into a broader appreciation of culture and relational values applicable across NCP categories.

In an attempt to decenter the human focus in understanding why nature matters and challenge the dominant understanding of nature as a separate entity from people, the Life Framework of Values reflects various ways how people and nature relate through four ‘life frames’ [14,15]: people living in, from, with, or as nature. The life frames are one of the central concepts used in the IPBES Values Assessment [16]. In the living *from* nature frame, nature is conceived as resources contributing to and providing conditions for human sustenance and prosperity. Living *with* nature sees nature as other(s) (e.g. other-than-human, ecological processes, and wild spaces) with their own interests and agency. Living *in* nature emphasizes place(s) (e.g. land, landscapes). Living *as* refers to nature as self (physically, mentally, and spiritually) without separating humans and nature [14, p. 41]. While the Life Framework helps to interface worldviews and broad human values (including ethics, morality) that apply to human-nature relationships, and the specific categories of instrumental, relational, and intrinsic values of nature [4], the Life Frames are not mutually exclusive, with individuals and communities often expressing multiple frames [12,14,17]. People may experience themselves as living as a part of the web of life, live with wildlife and live from crops, and live in the natural landscape.

In the Life Framework, the starting point for the relations that are being described is people. One obvious reason for this is that values, even when not anthropocentric, are inherently anthropogenic when expressed in human language. In so far we are aware, other species do not express the level of abstraction inherent in defining the form and meaning of value relationships. Nonetheless, it is possible for people to take the perspective of others, including beyond-human nature, by articulating their observed needs and interests [13]. For

example, Kohn [18] challenges anthropologists to interpret meaning through the beyond-human world rather than solely focusing on human meaning alone. Similarly, in the well-known essay ‘Should trees have standing?’, the author Christopher Stone argues that it is easier to articulate the interests of trees than that of a corporation. Like children, they can be represented through guardians *ad litem* [19].

Thus, in this article, we try to explore how the current Life Framework may be reinterpreted from the perspective of a more differentiated nature concept. Our main question is how can human-nature relations be understood using mirrored life frames that describe *nature* living in, from, with, and as people? The author team, with a mixed disciplinary background in describing human-nature relations, scoped the current literature and jointly constructed this perspective piece to address this question. Here, we first describe the mirrored frames and then explore if this framing could help the communication and decision-making within the current discourse on transformative change and sustainable development in the Global Biodiversity Framework.

Life frames from nature’s perspective

Nature living in people

Living *in* people would emphasize place(s) strongly defined by people, including human bodies, urban areas, and industrial or agriculturally transformed landscapes. Microbiome research [20], [21] shows that many other organisms live in human bodies, interacting in positive, neutral, or negative ways with human health. The recent global COVID-19 pandemic has increased general awareness of the zoonosis risk where new organisms try to ‘live in people’ jumping over from existing hosts that were involuntarily becoming part of the urban human environment [22]. Beyond co-inhabitants of human bodies, nature ‘living in people’ may include the substantial ‘culture-following’ parts of flora and fauna, with opportunities unequally distributed in dependence of settlement history and human inequality [23], and special niches such as university campuses [24], churchyards and cemeteries [25], or peri-urban areas [26]. Urban nature is now recognized for a specific relationship with people [27]. Nature also lives symbolically in human cultural imagination and can depend on this for preservation as cultural heritage [28]. Human constructs such as national boundaries imply concepts of ‘indigenous’ flora and fauna, or species considered to be iconic as human group marker.

Nature living from people

In the living *from* people frame, people are resources contributing to and providing conditions for the sustenance and prosperity of organisms. Two-way instrumental relations in ‘living *from*’ are common, especially

in the early stages of domestication processes as discussed in agrobiodiversity literature [29–31]. The flora and fauna of domesticated landscapes depend upon their humans [32]. It could be said that specific grasses such as wheat, maize, and rice have profoundly benefited from people, and though their quality of life is often poor and their chances for survival post-Anthropocene world are limited, domestic animals’ biomass is substantially greater than that of wild animals [33]. Invasive species thrive because of dispersal by people. Recent evidence that ‘pristine’ habitats, without any past human influence, are rare [34], but traces of human activities such as preponderance of fruit trees for which humans became a dispersal agent are easily overlooked [35] and landscapes misread [36,37].

Nature living with people

Living *with* people considers humans as ‘other species’, with their economic and social processes that act as drivers of change impacting on natural habitats and wild species. For flora and fauna that fall outside of the living *in* or living *from* frames, living *with* people is the only option other than becoming part of the Anthropocene extinction wave [12]. The persistence of macrofauna in the continent where humans evolved, in possible contrast to the continents where humans settled with hunting skills already evolved, points to the need for a slow co-evolution of ‘living *with*’ [38,39]. To support nature to ‘live with people’, humans establish protected areas [40] and ecological connectivity between them [41,42], by a matrix where less-fragile nature and people live with each other [14]. Human motivations to do so may range from instrumental (e.g. gene pools, option values) and relational to the intrinsic. There are few if any places where nature lives ‘without’ people, and even here cannot avoid human drivers of change, such as anthropogenic climate change. As with the previous frames, this mirrored frame also illustrates how some aspects of nature benefit while others lose out.

Nature living as people

This frame would reflect an understanding of nature as a part of us humans, for example, through bonds of kinship, spiritual relationships, in cultural traditions and myths, and other ways that express nature, as individual species and other natural entities. Examples include trees that have agency in traditional stories, rivers and mountains that are deemed a person, and pets and other animals that are seen as members of people–nature communities, such as Fungie, a dolphin who lived in Dingle Bay in Ireland and consistently sought human company. It is also illustrated by the way the essential presence of different plants and animals can be embodied by people in traditional cultures [43]. If natural entities could have access to conventions such as those on Human Rights, without separating humans and nature, a moral basis for nature’s intrinsic values would

be formalized in law. Current efforts in some countries to give legal identity to, for example, mountains, rivers, or Pachamama [1], are a step in this direction.

Life Frames as two-way concepts

To consider the relation between the original and mirrored Life Frames, Table 1 provides examples of value and management aspects of these two-way human-nature relations. Nature living *with* people may represent seminatural to wild habitats, while the nature living *from* and *in* frame focuses more on agricultural and urban habitats (Figure 1). The living *as* people can refer to organisms, habitats, or nonliving parts of nature.

The cells in Table 1 beyond the main diagonal in bold suggest that nature- and people-based perspective on the two-way relationship can differ. The two living *in* frames both relate to place, how do the interactions between people and nature create spaces and places for people and nature and their interactions. This articulates the degree to which nature depends on the way people shape places, in terms of landscapes, green spaces, and so on, in the interactions between natural and cultural heritage, and in the interactions between nature and human health.

The two living *from* frames are the sides of the same coin, but the important insight is that nature is frequently dependent on people, so the instrumental relations are often two ways. A key question here is what nature is prioritized over other nature to benefit from people.

The two living *with* frames relate to creating or preserving space for nature. The living *with* people frame adds more depth to this understanding, in that even when people leave or create space for nature to live with, that nature is rarely if ever unaffected by people, and that this will have both winners and losers within nature — hence the importance of considering how different specific aspects of nature live with people within the living *with* framing.

The living *as* people framing mostly highlights aspects of people–nature relationships already highlighted by the nondualistic people living as nature frame; because of the holism of this frame, it might be expected that it essentially remains the same if it is mirrored.

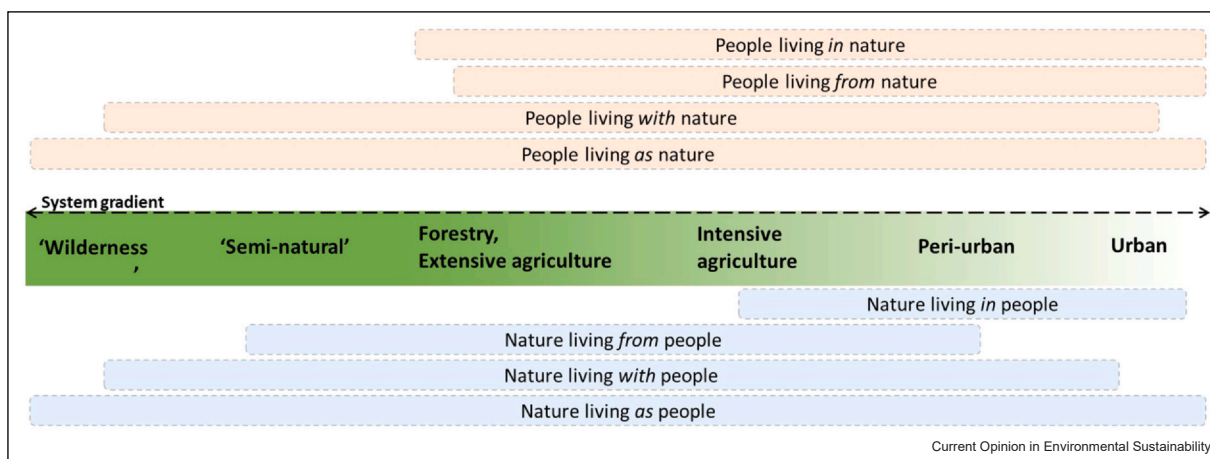
Discussion

The four original Life Frames reflect ways of understanding nature as a resource, as place, as the other, or as self. Our discussion above suggests that diverse understandings of people and anthropogenic activities could be understood similarly from the perspective of beyond-human nature. Consequently, mirroring the frames does

Table 1
Examples of what can be considered in a two-way framing of people–nature relations; cells indicate aspects where two frames could overlap. Cells outside the main diagonal indicate aspects beyond what the frames already convey.

	<i>in</i> people	<i>from</i> people	<i>with</i> people	<i>as</i> people
Nature living				
People living				
<i>in</i> nature	Biota- and place-based human identity through symbols, heritage landscapes	Taboos, local institutions restricting resource use	Sacred forests, local reserves, myths, and stories of origin	Rituals and ceremonies to ask permission for human actions
<i>from</i> nature	Hunter/gatherer, management of wild resources, first steps toward domestication	Biota responding to wild harvests, (semi) domesticated plants, and animals	Restoration aimed at productive, functional landscapes	Animal rights in domestic livestock
<i>with</i> nature	Nationality claims on genetic resources (Nagoya protocol)	Pollinators, biological pest control, wild relatives of crops and livestock, and nature-based solutions	Stewardship, land use planning, zone-based rights to persist, and human responsibility	Nature surviving through connectivity planning in a human-dominated landscape
<i>as</i> nature	Human health: holistic medicine	Anthropogenically restored 'wild' populations	People in protected areas focused on nature-centric 'intrinsic value' conservation	Legal identity of nature

Figure 1



The complementary and relevance of the original (in red) and mirrored (in blue) Life Frames regarding the wilderness-to-urban spectrum.

not expand the number of possible Life Frames, but rather adds further depth and meaning to the existing four frames. An important consideration that is more explicitly highlighted through the mirroring is that human actions and impacts generate both winners and losers across different natural entities. For example, within a single habitat, different species may be in different relations to people (living *from*, *in*, *with*, or *as* them), and thus may be considered differently or have clashing interests. These are not new insights, with the Anthropocene driving new speciation as well as extinction [44], but can be included more explicitly through considering the mirrored framing. Another important contribution of two-way consideration of the frames, is that it counters the implicit anthropocentrism in the current Life Framework that frames people as the starting point for all.

Two-way consideration of the Life Frames may also serve as a reminder in discussions in the Global Biodiversity Framework context regarding what understandings of nature and human-nature relationships are included as part of the ‘30%’ land and water areas where biodiversity is a priority. And also for the ‘other 70%’, where biodiversity is not framed as a priority but where human-nature relations cannot be ignored. The aim here then has been to challenge the simplistic description of nature in such policy frameworks while offering a basis to visualize and plan around more convivial and synergistic human-nature relationships. The nature living *from* and *in* people frames provide an additional lens to the role of people and nature in shaping heritage landscapes and practices and (peri)urban green and blue spaces as part of ‘peoples contributions to nature’ [45–47]. Continued science-policy boundary work that seeks more diversified environmental explanations and

transformative solutions may support the common goal of the Global Biodiversity Framework, but also its differentiated responsibilities [48].

Data Availability

No data were used for the research described in the article.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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- of special interest
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