

# Our minds need more experiences of nature

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## KEY POINTS

■ **The sensory and emotional experiences gained through regular interaction with the natural world have an impact on our minds, helping to reset attention and reduce stress. They play an important role in children's cognitive and social development. However, our connection with the living world has eroded over the generations. If we want to avoid developing a form of environmental amnesia, a number of individual and collective approaches are possible.**

W e human beings are a living species, *Homo sapiens*, who live and develop in continual interaction with the other living species that inhabit the Earth. Even in Western societies that have been built “against nature” [1], we are in constant contact with the rest of the living world. We are part of biodiversity: thanks to nature we breathe, eat, equip ourselves with tools and heal ourselves; we also host microbiota that protect us. The World Health Organization (WHO) has established a clear association between contact with nature and health [2]. The International Platform for Biodiversity and Ecosystem Services (IPBES) goes further<sup>1</sup>, explaining that the proper ecological functioning of nature is directly linked to the quality of human life. Health – including mental health – is one of the 18 components of this quality of life.

In 1991 [3], Ulrich was the first researcher to propose a theory of *stress recovery*, showing that nature reduces stress and its associated

physiological tensions. For this study, 120 student volunteers watched ten minutes of a stressful video, followed by ten minutes of a soothing video, set either in a city or in a natural environment. The physiological indicators of stress all increased during the first part of the experiment and then decreased during the second, but more sharply and more quickly for those viewing the natural scenes compared with the urban scenes. In 1990 [4], the psychologists R. and S. Kaplan proposed their *attention restoration theory*, which asserts that nature can repair our capacity for attention and our general mental state. These two theories have been tested and expanded in other research [5; 6], leading to the current scientific consensus: access to nature improves mental health. In this context, nature is defined as a space containing living elements (fauna and flora), which may or may not have been constructed by humans, ranging from urban parks to relatively “wild” nature [5].

A recent literature review published by the journal *Lancet Planet Health* confirmed the positive effects of nature prescribing on mental health, depression and anxiety [7]. Furthermore, simply being, doing something or playing in a natural environment encourages concentration and social interaction, and can boost self-confidence [8].

## An essentialised and distant nature

Despite this knowledge, environmental health research has historically focused on the negative effects of natural environments (particularly polluted ones) on human health, paying very little attention to the positive effects of contact with nature. This perception of

nature as dangerous, as a reservoir of pathogens, persists in some areas of modern medicine and reflects the current dominant norms within Western societies. As a result, spending time in nature is seldom a priority: we “don’t have the time”, with even children staying away [9], out of fear [10] or perhaps also out of ignorance.

This situation can be explained by an “extinction of experience” with nature, a term first used by the ecologist Robert Pyle back in 1993 [11]. Adopted by scientific communities of conservation biologists over the last ten years or so, this hypothesis suggests that a lack of nature in residential areas combined with less desire to visit natural spaces result in a poor “experience” of nature. Nature can be experienced through commonplace features of the environment such as roadside plants, urban or rural birds, woods or urban parks close to home, private gardens or the green spaces shared by community housing. Our alienation from nature has consequences not only for health, but also for individual attitudes and public policies towards the natural environment. At present, in France and across the Western world, nature and our connection with the Earth are not generally considered as an important individual or collective need.

Instead, nature has become part of our collective imagination, in an increasingly essentialised way: a symbol of purity, a carefree spirit, fragility, childhood, happiness, a distant concept of something immaterial and hazy. We pass this simplified image of nature from generation to generation. In France, children play outside less and less [12]. They are held back by often illusive concerns about hygiene, safety or protection against dangers but also by their

parents or other adults around them, who themselves do not want to go out. This was the conclusion made by a paediatric research team led by K.A. Copeland [13], who studied why children attending childcare centres in the suburbs of Cincinnati (USA) rarely played outside. The fifty or so educators questioned were aware of the benefits of outdoor physical leisure activity for children (particularly with regard to problems of obesity, the original issue of this study) but all felt that these benefits were outweighed by the inconveniences caused by such outings to adults. They declared fearing reproach by parents because a child has fallen over or become ill, fearing bad weather, not wanting to create extra work (getting the children suitably dressed, cleaning up inside if they come back dirty), and the inconvenience of being outside themselves.

Yet, being active in nature accelerates cognitive, emotional and social development, and helps children to build their values and identity [8]. This is particularly true of free play in nature, where the elements offer an infinite number of sensory stimuli and potential actions, according to

Gibson (quoted by L. Chawla [8]). Patrick and Turniciff (quoted by A.C. Prévot [14]), believe that play in nature and in groups enables children to become truly and physically involved in “*experiential learning*”, enriched by the relationships they develop with others and with the world. This learning can take place alone [8], with a group of children or, according to L. Chawla (quoted by A.C. Prévot [14]), with a supervising adult to provide context.

Experiences of nature, for both children and adults, can also lead to an awareness that we exist within a wider space of living beings, which in turn prompts us to change our point of view on the place we can occupy within it, both individually and collectively [14]. People who are “*connected with nature*” in this way sometimes behave differently from others in relation to the environment [14]. Of course, they don’t only feel positive emotions about being in nature; some may feel strong negative emotions about the current biodiversity or climate crises (see article The distress caused by the prospect of an ecological cataclysm in this issue). However, because they are rooted in the living

world, they are also less likely to become depressed; on the contrary, they can take action and overcome their fear, sadness or anger [15]. This avoids a great deal of unhappiness and mental illness.

### Changing social norms

What are the different ways to experience nature? While individual desires and behaviours are significant driving forces, social norms, as well as practical and material factors, also play an essential role.

To address this, public authorities should (re)introduce elements of nature close to where people live, especially in urban areas. Green spaces must be accessible to residents, as freely possible. This should include areas of vegetation that are diverse in terms of living species and management strategies so that they respond to the different ways in which people relate to nature. For example, some people prefer well-mown and neat spaces, while others feel a greater sense of release in wild meadows.

It is also a collective responsibility to make these experiences of nature easy and accessible for everyone, for example, by constructing spaces



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## Feature

### Preserving Nature to Protect Human Health

and facilities in consultation with users, in a spirit of inclusion that helps to restrict environmental injustice (see article Delivering access to natural spaces for all city residents in this issue). Another way of encouraging these experiences is to limit anxiety-provoking messages in public communications or from people with authority (teachers, doctors) or influencers. Public authorities can be prescribers. In 2016, the public body Natural England – whose remit includes helping people to enjoy, understand and access the natural environment – put proposals to the UK government for ways to improve mental health care through activities in nature [16].

In a more holistic way, every one of us, alone or with others, can take a little time each day to get in touch with nature, whether through contemplation, gardening, hiking or any

other activity that suits us. Perhaps we also need to restore people's ability to experience nature, for example, by (re)educating them to pay attention and use sensory, emotional and cognitive approaches. This can be done by learning from other cultures and the way they represent nature, or by reading about the natural history of species that surround us, in order to open our minds to the knowledge, sensations and emotions that have disappeared from our social lives. This will lead us to reflect on the place we want to occupy alongside the rest of life on our planet. ■

1. <https://www.ipbes.net/conceptual-framework>.

2. There are a number of psychometric tools that use statements to measure someone's degree of connection with nature, such as the Environmental Identity (EID) scale, the Inclusion of Nature in Self (INS) scale and the Nature Relatedness Scale (NRS).

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