



Coaching outdoors: a biophilic perspective of the coach's experience of client learning in nature

Jonathan Passmore, Valentina Canessa-Pollard & James Prentice

To cite this article: Jonathan Passmore, Valentina Canessa-Pollard & James Prentice (14 Mar 2026): Coaching outdoors: a biophilic perspective of the coach's experience of client learning in nature, Journal of Adventure Education and Outdoor Learning, DOI: 10.1080/14729679.2026.2641728

To link to this article: <https://doi.org/10.1080/14729679.2026.2641728>



© 2026 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



Published online: 14 Mar 2026.



Submit your article to this journal [↗](#)



Article views: 305



View related articles [↗](#)



View Crossmark data [↗](#)

Coaching outdoors: a biophilic perspective of the coach's experience of client learning in nature

Jonathan Passmore ^a, Valentina Canessa-Pollard ^b and James Prentice^b

^aHenley Business School, University of Reading, UK; ^bSchool of Psychology, University of Chichester, Chichester, UK

ABSTRACT

Outdoor coaching is a practice growing in popularity among outdoor practitioners and professional coaches, yet research into these experiences in nature remains limited. This study explores how practitioners make sense of using outdoor environments as a space for client learning. Using Interpretative Phenomenological Analysis (IPA), 14 'professional credentialed coaches' were interviewed to explore how nature shapes their relationships, processes and identities. Five Group Experiential Themes (GETs) emerged: (i) a felt sense of belonging in nature; (ii) movement and the side-by-side dynamic; (iii) use of natural metaphors; (iv) experiences of beauty and complexity; and (v) ethical considerations. The findings suggest that outdoor coaches experience nature not as a backdrop, but as a co-facilitator of insight, presence and transformation. The research also raises important questions about culture and ecological ethics.

ARTICLE HISTORY

Received 11 July 2025
Accepted 17 February 2026

KEYWORDS

Outdoor coaching; biophilia theory; learning with nature; eco-coaching; walk and talk learning

Introduction

The emergence of outdoor coaching

Over the past thirty years coaching has become an established field of professional practice and research, yet many aspects of coaching in different settings remain under explored. Outdoor coaching represents one such development. It can be located at the intersection of executive and life coaching, outdoor education and adventure based personal development, alongside related practices such as outdoor leadership training and adventure therapy. Within adventure and outdoor education, research published in this journal and related outlets has documented how structured experiences in nature can foster reflection, transfer of learning and personal growth (Leberman & Martin, 2004; O'Brien & Allin, 2022; Richmond et al., 2018; Sibthorp, 2003). Outdoor coaching can be understood as a contemporary expression of this wider tradition, in which professional coaches draw on natural settings to support adult learning, leadership development and wellbeing, often in ways that complement indoor and digital coaching rather than simply replacing them. At the same time the rapid expansion of

CONTACT Jonathan Passmore  jonathancpassmore@yahoo.co.uk  Henley Business School, University of Reading, UK

© 2026 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

digital coaching has prompted questions about screen fatigue and the embodied costs of online work (ICF, 2021; Rai et al., 2021), which may further increase interest in coaching in natural environments.

Learning in natural environments has a long history, dating back through organisations like Outward Bound to the 1940's and less formally thousands of years. More recently, it has witnessed a growth, in part as a reaction to the digitization of daily work, alongside a growing recognition of the importance of the natural world beyond the screen (Grechyna, 2025) and a deeper desire for a connection with the wider natural world (Walsh, 2021). Studies in adventure and outdoor learning with children and young people similarly suggest that time in nature can support wellbeing, social relationships and a sense of purpose, reinforcing the idea that outdoor environments provide distinctive affordances for learning and development (Richmond et al., 2018).

Outdoor coaching takes diverse forms, from one-hour, one-to-one sessions to multi-day group retreats that blend adventure experiences with learning and coaching (Watson & Vasilieva, 2007). Further, the approach employed by individuals also varies. While some coaches use a non-directive, reflective style, typically found in executive and business coaching (Passmore & Sinclair, 2020), others for example sports coaches may use a variety of teaching styles, from command to self-teaching (Mosston & Ashworth, 1989). These different styles reflect the diversity of the term 'coaching,' and the backgrounds and training of the individuals providing the 'coaching.' This specific study was focused on exploring the experiences of professional accredited coaches, who have completed formal coach training with bodies, such as the International Coaching Federation or EMCC. More, settings range for outdoor coaching from gentle coastal walks and reflective woodland strolls to more adventure-based alpine and extreme locations. These locations offer unique opportunities for creativity, clear thinking and introspection (Ivaldi, 2024). Despite its diversity, the defining feature of outdoor coaching is its reliance on external environments as a 'venue' for professional development conversations.

In the context of this study, outdoor coaching refers to professional coaching engagements in which the primary focus is on clients' personal, leadership and wellbeing-related goals, rather than on teaching technical outdoor skills, such as climbing, paddling or navigation.

We propose the following definition of outdoor coaching for this paper: 'Outdoor coaching is a professional, goal-oriented conversation in which the coach and client engage in a reflective learning conversation in an outdoor environment, with the purpose of drawing on symbolic and kinaesthetic processes to facilitate enhanced personal responsibility, self-awareness and the development of action plans for behavioural change.'

This definition is rooted in our own traditions as professional coaches and draws upon the definitions of writers such as Sir John Whitmore (2005) and professional bodies such as the ICF (2026). We acknowledge others from other traditions may hold definitions and practices as noted above.

Engaging with natural environments offers a range of physiological, psychological and sensory benefits that may explain why outdoor coaching is effective. Sunlight aids vitamin D synthesis and serotonin production, supporting bone health and mental well-being (Holick, 2004). Rainfall enriches the air with mood-enhancing negative ions (Krueger, 1985). Additionally, sensory elements like birdsong and tactile interactions with nature

promote relaxation, stress reduction, and cognitive clarity (Ratcliffe et al., 2013; Rickard & White, 2021).

Biophilia hypothesis as a framework for outdoor coaching experiences

Beyond these immediate benefits, the effectiveness of outdoor coaching may also be rooted in humanity's intrinsic connection to nature, as outlined in the biophilia hypothesis (Kellert & Wilson, 1993; Wilson, 1984). Wilson argued that humans possess an innate tendency to seek connections with nature, which is deeply embedded in human biology, shaped by millions of years of evolutionary adaptation. Wilson's work built upon earlier ideas in psychology and ecology, including Erich Fromm's use of the term 'biophilia' to describe a psychological orientation toward life and growth (Fromm, 1964).

Central to Wilson's theory is the belief that certain landscapes and natural features—such as water, greenery, and open spaces—evoke feelings of safety, inspiration, and comfort. These preferences likely evolved because they provided survival advantages, such as access to food, water, and shelter. Wilson also emphasized the universality of biophilia, noting that this connection to nature transcends cultural and temporal boundaries.

Consistent with Wilson's hypothesis, Kellert and Wilson (1993) proposed that this connection with nature can be expressed through nine specific values or perspectives:

- (1) Utilitarian: The practical and material exploitation of nature as a source of life and sustenance, from food and water to shelter and medicine.
- (2) Naturalistic: The satisfaction we derive from direct experience with nature and living things, such as being drawn to the beauty of flowers, forests, or wildlife.
- (3) Ecologistic-Scientific: The drive to investigate and learn about the natural world.
- (4) Aesthetic: The ability to find beauty and inspiration in natural forms, patterns, and landscapes.
- (5) Humanistic: A sense of emotional connection and empathy toward nature and other living beings.
- (6) Symbolic: The use of natural elements for expression and communication.
- (7) Moralistic: A sense of responsibility or stewardship for the environment.
- (8) Dominionistic: Mastery of, and dominance over nature.
- (9) Negativistic: A fear or caution toward certain aspects of nature, such as dangerous animals or extreme weather, which may have evolved as survival mechanisms.

These biophilic values offer a useful lens for understanding outdoor coaching because they describe different ways in which clients and coaches may relate to natural settings during their work together. For example, aesthetic and naturalistic orientations may underpin accounts of clients feeling calmer, more creative or more themselves when coaching takes place outdoors, while moralistic and humanistic values may surface in conversations about responsibility, care and interconnection. At the same time, dominionistic or negativistic tendencies may appear when clients experience the outdoor environment as challenging or overwhelming, which can shape how safe they feel and what they are willing to explore in coaching (Kellert & Wilson, 1993; Wilson, 1984).

Outdoor coaching research

While outdoor coaching has grown in popularity, the research remains at an early stage. To date, only four studies have been completed (Passmore & Lloyd-Jones, 2025; Burn & Passmore, 2022; Ivaldi, 2024; Palmer & O'Riordan, 2019) with a two further practice-based papers, advocating the benefits (Cook & van Nieuwerburgh, 2020; Turner, 2017).

Ivaldi (2024) used Interpretative Phenomenological Analysis (IPA), to analyse the experiences of five walking coaching clients to explore how nature can be a resource for self-understanding and well-being. The study suggested that nature facilitates a process of self-discovery, leading to clarity, self-acceptance, and restoration.

Palmer and O'Riordan (2019) conducted a two-part study and found that a short coaching conversation, 15-minutes, whilst walking along a London canal or a Welsh seafront increased self-reported wellbeing scores for the clients.

Burn and Passmore (2022) examined the benefits of outdoor coaching using Kaplan's Attention Restoration Theory (ART) as a framework. They noted that participants reported enhanced openness, emotional release, and clearer thinking, attributing these benefits to the natural setting. Key to the process, Burn and Passmore argued, were the elements of being side by side with the coach, the restorative impact of movement and the contrasting benefits of outdoor versus indoor environment.

Two further practice-based papers describe personal experiences of walking and talking and advocate for its wider use in coaching and for research (Turner, 2017; Cook and van Nieuwerburgh, 2020) with a book chapter (Burns & Watson, 2020) and two books (Roberts, 2022 and Passmore & Lloyd-Jones, 2025) have reviewed the practice of outdoor coaching.

Given its growing popularity and potential, there is a clear need for more research that explores outdoor coaching as it is experienced by practitioners and connects their accounts to relevant theoretical frameworks. In this study, we set out to examine how professional coaches who work outdoors make sense of using natural environments as a space for client learning and how they perceive nature to shape their coaching relationships, processes and professional identities. Our focus is on coaches' interpretative accounts rather than on measuring client outcomes directly. The biophilia hypothesis provides a sensitising framework for interpreting these experiences and for considering how evolved human affinities with nature may be expressed within contemporary coaching practice.

Focusing on coaches' own accounts offers an important first step in building a theoretically informed understanding of outdoor coaching practice. It illuminates how practitioners perceive nature to shape the coaching encounter and the kinds of pedagogical and ethical questions that arise, which can then inform subsequent research that examines client experiences and outcomes more directly.

Method

Objective

This study aims to understand coach experiences of coaching in nature through an interpretative engagement, grounded in the belief that understanding is constructed through human interactions (Flick, 2014). Rejecting objective realities (Burrell & Morgan, 1979), we explore subjective experiences as constructions or interpretations (Bachkirova & Kauffman, 2008). Knowledge is thus contextually grounded in personal

insights (Johnson & Duberley, 2003). This aligns with Interpretative Phenomenological Analysis (IPA), a qualitative methodology rooted in phenomenology, hermeneutics and idiography that seeks to understand how individuals make sense of their lived experiences (Smith et al., 2009, 2022). This orientation resonates with coaching research and supports our interest in how outdoor coaches interpret their own practice.

Researcher positioning

The research team comprised two experienced coaching psychologists and a research assistant with a longstanding interest in outdoor coaching, outdoor learning and previous experience of qualitative inquiry. This positioned us as individuals sharing aspects of participants' professional backgrounds, while also bringing an analytic perspective shaped by our own backgrounds as coaching psychology and environmental psychology researchers. Throughout the project, we sought to remain reflexive about these positions. Each researcher kept brief reflective notes after interviews and analytic meetings, and we discussed how our prior experiences of outdoor coaching might be influencing the questions we asked and the interpretations we favoured. This reflexive stance is consistent with IPA's emphasis on the 'double hermeneutic,' in which researchers interpret participants' interpretations of their experiences (Smith et al., 2009, 2022).

Sampling

A purposive sampling approach was used to recruit 14 professional coaches who regularly worked with adult clients in outdoor settings. Consistent with IPA's emphasis on a reasonably homogeneous sample, participants were selected whose primary work involved developmental coaching with adults rather than technical outdoor skills instruction or therapeutic wilderness programmes (Smith et al., 2009, 2022). A sample of 14 was selected to maintain homogeneity in relation to professional role and outdoor coaching practice, while allowing variation in gender, age, ethnicity and country of residence. This enabled detailed case-by-case analysis alongside exploration of convergence and divergence across experiences.

Participants

Participants were professional coaches credentialled by either the ICF or EMCC who responded to an open advert inviting coaches actively engaged in outdoor coaching to participate. Across the sample, all participants had practice histories ranging from approximately two to fifteen years, and had experience working in a variety of roles in natural environments. Participant demographic characteristics are summarised in [Table 1](#). Of the 14 coaches, 13 identified as White, one as Asian, and seven as female and seven as male, with participants drawn from three continents.

Table 1. Participants.

Participant	Age	Gender	Ethnicity	Country of Residence	Self-identified description
Coach 1	45	Female	Asian	USA	Nature coach
Coach 2	58	Male	White	UK	Outdoor coach
Coach 3	68	Male	White	Canada	Outdoor coach rewilding ourselves
Coach 4	54	Male	White	UK	Wilderness facilitator
Coach 5	50	Female	White	USA	Executive coach with nature approach
Coach 6	47	Female	White	USA	Executive coach
Coach 7	47	Male	White	France	Life and professional coach
Coach 8	35	Male	White	UK	Outdoor coach
Coach 9	53	Female	White	Italy	Eco-somatic coach
Coach 10	50	Female	White	UK	Outdoor coach
Coach 11	61	Female	White	Scotland	Nature coach
Coach 12	55	Female	White	China	Nature-based mindfulness somatic coach
Coach 13	37	Male	White	Belgium	Outdoor coach
Coach 14	56	Male	White	Italy	Outdoor coach and systemic team coach

Data collection

Semi-structured interviews were conducted with each coach using an interview guide informed by the literature on outdoor coaching, biophilia and outdoor learning. The guide invited participants to describe how they came to practise outdoor coaching, give concrete examples of typical sessions, and reflect on how nature influenced the coaching process, client learning and their own identities as coaches. Interviews lasted between approximately 35 and 55 minutes and were conducted online. The same researcher conducted all interviews, which supported consistency in the use of prompts and follow-up questions, while remaining responsive to each participant's language and concerns. The interview guide was piloted and the pilot data were not included in the final analysis. Minor refinements were made to improve question clarity. [Table 2](#) summarises the core interview questions and examples of follow-up prompts.

Data analysis

The analysis followed the Interpretative Phenomenological Analysis (IPA) framework first designed by Smith et al. (2009) and incorporating guidance from Rajasinghe et al. (2021). Interviews were transcribed. Analysis was undertaken by repeatedly listening to the recordings to maintain fidelity to the coaches' expressions. The analysis adhered to

Table 2. Semi-structured interview guide and prompts.

Questions used in participant interviews	Prompts used in participant interviews
Tell me a little about your coaching practice as a whole?	
You mentioned outdoor coaching – tell me more about this work?	
Describe a recent coaching session that took place outdoors and what stood out to you about it?	What else stood out as being different?
You mentioned that you work both indoors and outdoors. How does your work outdoors compare to indoors?	Can you say more about that?
What's similar between the two?	What else do you notice about the two?
What's different between the two?	What else?
How does outdoor work impact on your identity as a coach?	Can you say more about that?
How does this work influence your relationship to nature?	Can you say more about that?
What else would you like to add on this topic about your work?	

IPA’s idiographic commitment, examining each case individually before progressing to cross-case analysis.

The updated guidelines in Smith et al. (2022) informed a seven-step analytic process: immersion in the data, exploratory noting, construction of experiential statements, mapping connections, development of personal experiential themes (PETs), iterative case-by-case analysis, and cross-case analysis to develop group experiential themes (GETs).

Empathetic hermeneutics (Ricoeur, 1970) and questioning hermeneutics (Rajasinghe et al., 2021) were employed throughout the analysis, allowing for a deeper interpretative engagement with each coaches’ experience, to create the GETs. In line with IPA methodology, the analysis progressed from specific descriptions to broader interpretations (Smith et al., 2009), while maintaining a strong focus on the coaches’ lived experiences.

Ethical approval

Ethical approval was obtained on 20 December 2024 from a Henley Business School Ethics Committee, University of Reading: approval number: SREC-HBS-20241207-JOPA4432.

Time period

The study took place between January 2025–May 2025.

Results

Throughout the research process from the first to the final interview, there was a palpable range of topics covered, as outlined in Table 3. Various avenues for advocacy of outdoor coaching were explored, including enhanced connection to others and nature, improved coaching dynamics, enhanced problem solving through new perspectives, enriched settings and creativity and ethical considerations, which include enhanced connection to others and nature (1), improved coaching dynamics (2), enhanced problem solving by gaining new perspective (3), enhanced setting and creativity (4), and ethical considerations (5). A total of five Group Experiential Themes (GETs) are illustrated with eloquent quotations from a variety of coaches. It is important to note one underling theme that permeates the entire analysis, the idea that coaching outdoors seems to be a countermovement to traditional coaching settings, particularly the virtual medium—a point which will be explored further in the discussion.

Table 3. Group experiential themes (GETs).

Group Experiential Themes	Subordinate Experiential Themes
A felt sense of belonging in nature	Safety and ancestral familiarity; Identity and place; Heightened awareness and self-awareness;
Movement and the side-by-side dynamic	The physiological and emotional effects of movement; Side-by-side orientation and embodied attunement
The use of natural metaphors	Externalising experience through nature-based metaphor; Learning from ecological processes; Recognising limits and individual differences in metaphor use
Beauty and complexity	Awe, stillness and illumination; Expansive and dream-like thinking; Encountering the unexpected as symbolically meaningful
Ethical considerations	Experiences of forced displacement; Cultural perceptions of the outdoors; Relating to the ecological self

The majority of the findings section will comprise verbatim quotations in order to fully represent individual experience, as suggested by Smith et al. (2022). Convergence and divergence of experience will also be explored, within the practical remit of conciseness, while respecting representation of individual experience in accordance with IPA's underlying idiographic philosophy.

As is common in IPA, some subordinate themes are elaborated in greater depth than others but all contributed to the analytic structure summarised in [Table 3](#).

Theme 1: a felt sense of belonging in nature

A felt sense of belonging in nature was the most prominent underlying experiential thread expressed across participants. For many, nature was not just a backdrop but an embodied presence that shaped how both coach and client entered into the relational space.

Safety and ancestral familiarity

Coach 7, for instance, described a visceral sense of safety and connection in nature, drawing on an intuitive belief that the unconscious recognises the environment as familiar, even ancestral:

And I have this kind of theory completely unproven by any science that there's part of our unconscious that recognises real wild nature, because that's effectively where we've come from and feels more connected or more safe or something. And yeah, and that's very much like engaging the unconscious, enabling the unconscious, accessing the unconscious.

This suggests that the outdoor setting may bypass some of the psychological defences typically encountered in more artificial environments, opening clients up to deeper reflection.

Identity and place

For Coach 7, the outdoors also appeared to dissolve the boundaries between self and environment (i.e. nature became co-facilitator, not just context), supporting a shift in identity and sense of place:

I think it's also helped me with my sense of place in the world, in the universe. Right. OK. Well, I'm part of this big web of nature and I'm not. I feel. I used to feel very separate to nature, like nature was out there and I'm in here rather than I am a piece of nature. I'm a piece of this network. Yeah, fundamentally. And that it's become much easier to have that perspective.

Heightened awareness and self-awareness

Coach 4 similarly emphasised a heightened state of awareness when coaching outdoors, suggesting a link between environmental attentiveness and self-awareness:

When we're out navigating, our brain is actually engaged. You've probably heard some of the stuff that when we drive, when we drive with a SatNav or a SatNav on our phone, our hippocampus doesn't fire at all. And if you're in an outdoor environment, normally you're quite alert looking out for things. And I don't mean alert, like fight or flight. I mean, you're aware. So I think that awareness. Probably helps self-awareness. Where do I fit into this environment?

Taken together, these reflections construct nature as a space that invites existential inquiry—a return to something elemental that supports disclosure and introspection. Importantly, the language used was not just about cognitive insight but about feeling, fitting, and belonging— affective states that may be particularly conducive to the coaching relationship.

Theme 2: movement and side by side dynamics

The main difference between coaching outdoors vs indoors, besides setting, is the movement engaged in by both client and coach. While several coaches expressed how outdoor coaching can be conducted in a static position, e.g. on a bench, the majority of coaches described movement, usually walking side-by-side.

The physiological and emotional effects of movement

Several coaches suggested that movement in an outdoor context fosters a sense of calmness and ease within the coaching relationship. In particular, walking was described as reducing the discomfort often associated with sitting opposite a coach and maintaining prolonged eye contact. Coach 2 explains how simply being outdoors in the fresh air seemed to invigorate the coaching process:

So I think there's something to be said for, yeah, that movement, as I said earlier that kind of you know, getting oxygen into the brain. That's definitely something that I've experienced both again myself as a, as a coach going out for, you know, a coaching walk has invigorated me as much as it has invigorated my clients, I would suggest.

This suggests that the outdoor context changes the energy of the coaching dynamic, naturally increasing the energy levels of both coach and client. The language of 'invigoration' highlights how movement was experienced not merely as incidental but as a core contributor to the quality of the coaching interaction. is a core aspect of their practice, offering benefits for both client and coach.

Side-by-side orientation and embodied attunement

Walking side by side was also described as reshaping relational dynamics between coach and client. Coach 4 highlighted how this orientation facilitates conversation and allows both parties to feel comfortable with silence:

You know, it's well reported that, you know, walking side by side because a lot of the work I do, you know, it is with groups. So I'll put people in pairs to discuss a topic, an issue that's going on in their team or their business. So I think the walking side by side, I know myself for years and years going hiking with friends. You don't look at each other and you just talk and you can have something you can have long silences. When you're walking next to each other on, it doesn't really matter. You feel comfortable. So I think there's a bit about physically walking and not having to look at each other across the table.

Coach 4's account suggests that side-by-side orientation reduces interpersonal pressure and supports discussion of sensitive topics in a non-confrontational manner, even in group contexts.

Coach 2 further emphasised how walking side-by-side enhances embodied attunement, particularly in contrast to digital coaching environments:

you know, the way that we're talking now for example over, you know, a sort of digital medium means that we can't necessarily see each other's body language. So if we're walking side by side, the element of body language is easier I would suggest to note, and to sort of take questions on and just to say, I can see that you're interested in something over there.

This highlights a shared experiential shift away from screen-mediated communication towards a more embodied, relational mode of engagement. The ability to notice bodily cues and environmental attention points enabled coaches to respond in-the-moment, supporting a more attuned and responsive coaching process.

Theme 3: the use of natural metaphors

Metaphor is a powerful tool used in coaching more broadly. Many coaches expressed how nature offers metaphors that arise organically, enabling clients to externalise issues and explore them from a wider, less self-referential perspective.

Externalising experience through nature-based metaphor

Several coaches emphasised how nature-based metaphors allow clients to 'outsource' their concerns to the environment, creating psychological distance and supporting reflection. Coach 1 described intentionally foregrounding natural elements to help clients interpret their situations metaphorically:

My approach to making it a nature-based practise is putting like the elements at the forefront right so. Metaphorically, bringing in interpretation of their situation. And asking, or like really having them remember metaphorically those show up as elements as well, right? So often-times we could make it a neutral situation by saying like, well, how does this show up in nature? You know, like what would nature do with this challenge that your presenting? ... So centring the experience outside

This process of externalisation was experienced as particularly powerful, allowing clients to approach their challenges with increased openness and reduced defensiveness. Across cases, the felt sense of open-mindedness appeared to catalyse new perspectives when issues were positioned outside the self.

Learning from ecological processes

Beyond externalisation, coaches also described how natural metaphors enabled clients to learn directly from ecological systems and processes. Coach 11 expressed how metaphor in nature allowed clients to break-away from traditional day-to-day habitual thinking, exploring the specific example of mycelium, the root-like network of a fungus:

also nature gives us so many metaphors or so many mirrors ... Assertiveness, for instance, it's about what are what are your needs, what are your boundaries? How do you communicate? And again in nature, there's so many examples of animal setting their boundaries. Or the mycelium, how does it? How does it work? How do you communicate in a team? Well, how does nature communicate with it's team? So I find the parallels are really useful throughout that whole process.

This experience suggests that humans can observe and learn from nature which could directly relate to teamwork and communication, a powerful aid to the coaching process.

Recognising limits and individual differences in metaphor use

While metaphors were widely described as beneficial, coaches also highlighted the need for flexibility and sensitivity to individual differences. Coach 10 mentions how sometimes clients in the outdoor setting talk exclusively using metaphors, which can at times be challenging to work with:

Yes, yes. And I've had some people who just talk through metaphor as well, which is just like, whoa, what's going on there? That other people who are just very clinical and transactional in their approach. You know, so yeah, that would. That's interesting. Yeah

This reflects an underlying theme within coaching more widely, the need to tailor the therapeutic approach depending on the individual. While nature offers many rich metaphors, lived experience sheds light on how different individual personalities may not be conducive for metaphorical discussion, and that effective outdoor coaching requires adaptability in how metaphor is introduced and worked with.

Theme 4: beauty and complexity

Many coaches expressed the experience that simply being in a more natural environment, away from technology, office buildings, and urban settings provided a sense of calm. This overlaps with the underlying theme of a countermovement away from artificial settings.

Awe, stillness and illumination

Coaches described experiences of awe and stillness in natural environments as moments that carried psychological and symbolic significance. For Coach 2, deliberately pausing during a session to attend to a particular view or aspect of the landscape was experienced as meaningful in itself, rather than simply a technique:

Sometimes there might be an opportunity in an outdoor coaching setting to pause and stop, literally, and just kind of again either remaining side by side or off to one side from a client to invite them to look at a particular view or look at a particular you know, piece of scenery, let's say or piece of nature, and that can be very illuminating. It has been very illuminating just to kind of stop still. So that might be the beginning of a coaching session. It might be halfway through, it might be at the end.

The use of the term 'illuminating' suggests that moments of stillness and visual beauty were experienced as opening up insight, supporting shifts in perspective and increased openness within the coaching arc.

Expansive and dream-like thinking

Beyond moments of stillness, coaches 1 and 2 also described how the scale and complexity of natural environments facilitated expansive and imaginative thinking.

Specifically, Coach 1 feels that the expanse of an outdoor environment seems to directly reflect in expansive thinking, and the complexity of the outdoors played a large role in fostering creativity and 'right-brain' functions:

Psychologically, I think like just saying that there's a different setting that is not confined to like a screen or walls or a particular container, like the container is more expensive ... You know, challenging a client to see a different viewpoint. Right, there's more possibility to say let's use more of the right brain. And dream in a space where you know we're not sleeping.

But we're like, seeing these parts of nature that is just like dream-Like, right. Like, 'how does the sky even look like that?' ... So I try to tap into the fact that like in-person outdoors, we can access more freely, these multidimensional parts of us, like our intuition. I do a lot of work understanding how to also communicate with ancestors.

The 'dream-like' description is very powerful and provides insight into how coaches conceptualise the outdoor environment. Specifically exploring the more spiritual aspects of human nature which otherwise are not as easy to connect to in virtual environments.

Encountering the unexpected as symbolically meaningful

Coaches also recounted how unplanned encounters in nature were often experienced as symbolically meaningful and integrated into the coaching dialogue. Coach 8 describes an instance where the appearance of wild animals became intuitively linked to the client's narrative:

I work a lot with kind of intuition and so it might be easy to give a couple of examples here if that's OK. So part of the site I use is a rewilding site, and so they put some wild animals there and one of the client sessions the client was talking about not being seen. And in this topic, these two wild pigs, which were very happy doing their own thing, it started to scurry over and started to kind of nudge him and sniff him. And that never happened before in a session for me. And so it felt very apt to acknowledge that that you're talking about not being seen. These pigs really want to see you.

Many coaches told stories of how random acts in nature can provide meaning for both client and coach, such as a butterfly landing on someone's hand. These expressive stories highlight the importance of how unpredictable beauty and complexity overwhelmingly enhance the coaching process, specifically by fostering intuition and spirituality.

Theme 5: ethical considerations

This theme concerns points-of-interest identified by the researcher which require further discussion and may offer important information for established coaches who may want to incorporate the outdoors into their own practice. Each subordinate theme is explored with individual quotes and convergence is explained. Some of these subordinate themes were raised by only one or two participants but were included because they highlight ethically significant questions for outdoor coaching practice.

Experiences of forced displacement

This was a particularly interesting issue raised by coach 1 which, although did not emerge across multiple cases, the researcher deemed important to share. The issue is that many families, particularly those whose origins relate to forced migration may not view the outdoors similarly to non-marginalised communities:

Really is not separate or devoid of this conversation or the impacts of migration of people, right? So there's reasons why we don't normalise in a lot of cultures like being outdoors is safe. Right. So there's aspects of our historical context as people that are also important in the coaching practise to integrate into our understanding of like the whole person. So I think that's another emphasis that is like, yeah, I think I see other people coaching outdoors, but what is also part of that practise that is not often integrated, is the fact that there's been a historical sort of separation that has to do with, like forced migration of people.

Individuals from communities with a history of forced migration may be less willing to engage in outdoor coaching, which is an important issue to consider when striving for inclusion.

Cultural perceptions of the outdoors

Coach 12, who practices in China, raised the interesting point that there appeared to be a cultural difference in the perception of the outdoors, specifically to do with perceived cleanliness.

From their experience, they shared the perspective that many Chinese people are reluctant to take their shoes off in nature, sit on grass, and touch leaves and trees:

Let's say for me it's very natural since I was child that when I'm going to nature, I get off my shoes and just walk free. Right barefoot there without any problem. I don't mind. Could be the desert, could be the water, could be anything, right? Just having this sensation. For Chinese people, not. For them, they've been taught that doing that is getting the feet dirty, is not something polite to do, is not belong to their culture ... actually recently I found out is Asia. I was in Thailand and sharing this with some. Thailand people. And they say to me, well, I understand because me too, I'm not. That's comfortable doing that, yes.

Despite the observed cultural difference, coach 12 does caveat this by saying that this could be an Asian phenomenon more broadly. Secondly, based on coach 12's experience, not all individuals share this sentiment and more people are changing their perception of the outdoors over time.

Relating to the ecological self

The final subtheme which concerns the ethics and morality of outdoor coaching is ecological thinking and environmentalism, coined the 'ecological self' by coach 11. Many coaches shared the experience that oftentimes one of the outcomes of engaging in outdoor coaching can be ecological thinking, catalysed by an appreciation of the natural environment. Coach 9 eloquently articulates the relationship that coaches/clients can cultivate with nature and the importance of giving back through ecological behaviour:

My hope is also that we as a category of professional that are doing session outside, we don't see nature only as a setting but that we also try to develop more awareness about the value of nature, not just because it's a beautiful setting, or because it's functional to the coaching conversation, but also bringing awareness about ecology and protecting the environment, because I think that's very important and I would not want to see coaching, becoming extractive toward the nature. So I wouldn't want to see that. I think that's an important part of the conversation that we are receiving something from nature. We also need to bring something back to nature.

A sentiment shared across cases is the idea that nature should not be viewed simply as a setting but rather a facilitator in the coaching process, meaning that nature should be treated with the respect it deserves. This moves the conversation from coaching in nature to coaching with nature.

Discussion

This study set out to explore how outdoor environments shape the coaching encounter by examining the lived experiences of coaches who integrate nature into their practice,

with a specific focus on how they understand nature as influencing coaching relationships, processes and their own professional identities. Drawing on the biophilia hypothesis (Kellert & Wilson, 1993; Wilson, 1984), which proposes that humans possess an innate tendency to affiliate with life and life like processes, we interpret these experiences as more than contextually situated. Rather, they reflect a deep evolutionary orientation toward connection with the natural world, one that has potential implications for coaching relationships, processes and outcomes.

Belonging and the ecological self

For many coaches in this study, nature was experienced not as a neutral backdrop, but as an active, relational presence within the coaching encounter. Coach 7's reflection on feeling 'part of a larger web' speaks to a shift in ontological stance: from separateness to interdependence. This experience mirrors what Kellert and Wilson (1993) articulate in their formulation of biophilia as an orientation toward life and connection. Such moments of attunement often deepened coaches' awareness of what Naess (1989) described as the ecological self—the understanding that identity is embedded within, rather than apart from, the more-than-human world. For Coach 1 and others, this sense of belonging did not merely support personal insight; it reframed growth as something inherently relational, moving coaching beyond the pursuit of individual self-actualisation toward ecological maturity, where caring for the self and caring for the planet are inseparable acts.

Kellert and Wilson (1993) humanistic and moralistic biophilic values (emotional affiliation with nature and ethical concern for the non-human world) were also clearly reflected in participants' accounts. Several coaches described nature as a co-facilitator of the coaching process, reinforcing a relational ethic in which the natural world is engaged with, rather than used. This shift was mirrored in how participants spoke about their professional identities: no longer the expert guiding change, the coach became part of a co-creative, living system where insight and transformation emerged through collaboration with nature. These findings align with recent eco-therapy-informed coaching research involving clients (Canessa-Pollard, 2026), which conceptualises healing and development not as isolated intrapersonal processes, but as ecological and relational phenomena emerging through connection with nature.

Movement, metaphor, and somatic connection

Another prominent theme across participants' accounts was the power of movement, especially walking side-by-side, as a facilitator of connection, reflection, and ease. Rather than being a neutral activity, walking in natural environments was described as both symbolically and somatically significant: a process of moving through landscapes that mirrored the movement through ideas, emotions, and insight. Several coaches noted that this dynamic encouraged deeper, more relaxed dialogue and fostered moments of co-regulation. These relational and physiological benefits may be partly attributed to increased oxygenation and serotonin production (Sachs, 2019; Sobko et al., 2020) but participants also described a deeper, less tangible synchrony with nature's pace, aligning with Kellert's naturalistic and symbolic biophilic values, where nature is experienced as both companion and mirror.

Similarly, in line with Kellert's symbolic value, nature introduced spontaneous metaphors (e.g. animal behaviour or mycelial networks) that helped clients externalise and reframe issues. The capacity for this kind of deep symbolic work was often enabled by what Kaplan and Kaplan (1989) describe in Attention Restoration Theory (ART) as 'soft fascination,' that is, the gentle, undemanding quality of natural environments that allows attentional fatigue to dissipate. Coaches described entering expansive, almost dream-like states where creativity, intuition, and insight were more accessible than in time-bound, task-focused indoor sessions.

Our findings are echoed in Burn and Passmore's (2022) IPA study with clients, which reinforces the value of outdoor environments across multiple dimensions of the coaching encounter. Their participants described walking side-by-side with their coach as 'like walking with a friend,' highlighting the sense of emotional safety and equality. They also noted how nature surfaced new and creative ideas, with the environment acting as a subtle but active agent in the coaching process. Their analysis, structured around Attention Restoration Theory (ART), identified compatibility (the fit between setting and psychological needs) and soft fascination as key mechanisms supporting reflective thought. Clients described how nature helped them access deeper thinking, closely mirroring the spacious, intuitive and metaphor-rich states described by our coach participants.

Finally, many coaches in our study described moments of awe (e.g. through unexpected encounters or expansive views) that were experienced as spiritual or sacred. These reactions align with Wilson's (1984) assertion that certain natural landscapes evoke primal feelings of safety and wonder. From a biophilic perspective, such moments are not incidental but evolutionarily grounded: when individuals experience awe or a sense of peace in nature, they are tapping into a biological resonance with landscapes that once supported shelter, food, and social cohesion.

Ethics, access, and cultural perceptions

A unique and significant contribution of this study lies in the nuanced ethical and cultural considerations raised by participants, which are areas that remain underexplored in outdoor coaching research. These findings invite engagement with critical and decolonial perspectives on nature, which caution against romanticising outdoor environments without acknowledging how race, culture and historical displacement shape people's relationships with land (Bell, 2023; Finney, 2014; Ho & Chang, 2022). For outdoor coaches this means remaining alert to who feels invited, who feels excluded and how histories of access, ownership and safety may influence clients' willingness or ability to participate in nature-based sessions. For some, the outdoors may evoke safety and awe; for others, it may be bound up with exclusion, trauma, or estrangement. As such, outdoor coaching must adopt a critically reflexive stance, one that recognises how place is always political and shaped by power, memory, and accessibility (Hopkins & Dixon, 2006; Kling, 2024; Whatmore, 2002).

Only one coach in our study explicitly raised concerns about a client's difficulty in working with metaphor, yet this vignette points towards the importance of neurodiversity informed coaching practice. Conditions such as aphantasia or autism can fundamentally alter how clients process abstract imagery and symbolic language (Vulchanova &

Vulchanov, 2022). Awareness of such differences may prompt coaches to broaden their repertoire of communication tools and to adopt flexible, inclusive approaches that honour diverse cognitive styles, although more research is needed before firm conclusions can be drawn.

Finally, the call to treat nature as a co-facilitator rather than a tool resonates with the ethics of deep ecology (Naess, 1989) and ecopsychology-informed approaches (Canessa-Pollard, 2026; Buzzell and Chalquist, 2009), both of which advocate for recognising the intrinsic value of the more-than-human world. The emphasis placed by several coaches on ecological reciprocity reflects a move towards what Macy and Brown (2014) describe as the ecological self, that is, a self that is not bounded by the skin but includes ecosystems. In this framing, outdoor coaching transcends individual insight, encompassing relational ethics and planetary care.

Limitations

The idiographic design and relatively small sample mean that the diversity of experiences captured is necessarily limited, particularly across cultural, neurodivergent and ecological contexts, although this is consistent with IPA's focus on depth rather than breadth (Smith et al., 2022). However, as IPA prioritises idiographic depth over breadth, the sample is appropriate for exploring lived experience in detail (Smith et al., 2022). As participants were active practitioners and likely advocates of outdoor coaching, there is potential for positive bias or idealised representations of their practice. Including perspectives from those less familiar or less aligned with outdoor coaching could offer contrasting views. Lastly, although geographically and culturally diverse, the sample cannot capture the full range of global experience. Outdoor coaching is shaped by local ecological, social, and cultural factors, which may differ significantly across contexts.

Implications for practice

These implications for practice should be read as grounded in coaches' interpretations of their practice, rather than as tested prescriptions. They align with theory and with client focused findings in outdoor and eco coaching (Burn & Passmore, 2022), but further research with clients is needed to examine outcomes directly.

The findings suggest that outdoor coaching represents more than a change in delivery mode for these participants and offers a shift towards a more relational, ecological and embodied form of practice. To engage responsibly and effectively in this mode, training and supervision for new outdoor coaches should evolve to include ecological literacy and engagement with the wider outdoor learning literature. Those entering outdoor coaching should be equipped not only with coaching skills but also with a deeper understanding of the relationship between humans and nature as articulated in biophilic and associated theories. This includes recognising and responding to the nine biophilic values (Kellert & Wilson, 1993), particularly moralistic and symbolic dimensions, to avoid extractive practices.

New outdoor coaches also need to reflect on contracting and risk assessment for outdoor settings, to account for physical accessibility, environmental safety and consent around metaphorical and sensory engagement. These insights mirror

longstanding debates in adventure education about how to use perceived risk and uncertainty to support growth while managing actual physical risk, and about the role of 'edgework' in fostering personal development (Leberman & Martin, 2004; Sibthorp, 2003). What is distinctive in our participants' accounts is that these considerations are being negotiated within professional coaching relationships, often with clients whose primary goals relate to leadership, wellbeing or life transitions rather than to outdoor competence itself. In short, outdoor coaching is beginning to draw on the wider experiences and insights generated in outdoor learning, and this process could be accelerated if outdoor coaches engaged more actively with the adventure and outdoor learning literature.

Future research

Future research should continue to explore how outdoor coaching influences the development of the coach, including professional identity, values alignment, and relational depth. Longitudinal studies could track how repeated engagement with natural environments supports coaches' reflective capacity, resilience, and ecological awareness. A key area for exploration is how biophilic tendencies evolve over time in coaching professionals and whether this evolution leads to more environmentally responsible coaching practices or shifts in worldview.

Comparative studies across ecological and cultural contexts would enrich understanding of how biophilic responses are mediated by local environments, histories, and beliefs. It is equally important to include voices of coaches who are new to outdoor work or sceptical of it, to surface potential barriers and preconceptions. Such research can inform the development of inclusive training programmes and competency frameworks that reflect both the transformative potential and the practical challenges of nature-based coaching.

Conclusion

This study suggests that outdoor coaching is experienced by practitioners as a distinct relational and embodied form of practice, shaped by awe, metaphor, movement and a felt sense of connection to the natural world. Understood through the lens of biophilia, their accounts portray nature not as passive scenery but as an active contributor to insight, presence and the possibility of transformation.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Notes on contributors

Jonathan Passmore is professor of coaching and behavioural change at Hneley Business School, a chartered psychologist and the author of 45 books.

Valentina Canessa-Pollard is a senior lecturer at University of Chichester and a chartered psychologist.

James Prentice is a researcher at University of Chichester

ORCID

Jonathan Passmore  <http://orcid.org/0000-0003-0832-7510>

Valentina Canessa-Pollard  <http://orcid.org/0000-0002-3646-7871>

Data availability statement

The primary (anonymised) data from this study can be requested from the researchers.

Inclusion statement

The authors are committed to the engagement of all and in sharing the data and results from this study with participants and wider stakeholders. The data were collected primarily from participants based in Europe and North America, reflecting the development of outdoor nature coaching as it currently stands. Our research team included members from the UK and European Union.

References

- Bachkirova, T., & Kauffman, C. (2008). Many ways of knowing: How to make sense of different research perspectives in studies of coaching. *Coaching: An International Journal of Theory, Research & Practice*, 1(2), 107–113. <https://doi.org/10.1080/17521880802328186>
- Beames, S., Mackie, S., & Scrutton, R. (2020). Alumni perspectives on a boarding school outdoor education programme. *Journal of Adventure Education & Outdoor Learning*, 20(2), 123–137. <https://doi.org/10.1080/14729679.2018.1557059>
- Bell, K. (2023). The great outdoors? Discrimination theory and Black park use. *The Mellon Mays Undergraduate Fellowship Journal*, 2023, 9–13.
- Burn, A., & Passmore, J. (2022). Outdoor coaching: The role of attention restoration theory as a framework for explaining the experience and benefit of eco-psychology coaching. *International Coaching Psychology Review*, 17(1), 21–36. <https://doi.org/10.53841/bpsicpr.2022.17.1.21>
- Burns, A., & Watson, A.-M. (2020). Outdoor eco-coaching, pp291-300. In J. Passmore (Ed.), *The coaches' handbook*. Routledge.
- Burrell, G., & Morgan, G. (1979). *Sociological paradigms and organisational analysis: Elements of the sociology of corporate life*. Routledge. <https://doi.org/10.4324/9781315609751>
- Buzzell, L., & Chalquist, C. (Eds.). (2009). *Ecotherapy: Healing with nature in mind*. Sierra Club Books.
- Canessa-Pollard, V. (2026). Integrating eco-therapy into coaching psychology: A dual case study of grounding, meaning-making, and emergent agency. *International Coaching Psychology Review*, 21(1), 55–69.
- Cook, S., & van Nieuwerburgh, C. (2020). The experience of coaching whilst walking: A pilot study. *The Coaching Psychologist*, 16(2), 46–57. <https://doi.org/10.53841/bpstcp.2020.16.2.46>
- Finney, C. (2014). *Black faces, white spaces: Reimagining the relationship of African Americans to the great outdoors*. UNC Press Books.
- Flick, U. (2014). *An introduction to qualitative research* (7th ed.). Sage.
- Fromm, E. (1964) *The Heart of Man: Its Genius for Good and Evil*. Harper & Row Publishers, Harper & Row.
- Grechyna, D. (2025). Raising awareness of climate change: Nature, activists, politicians? *Ecological Economics*, 227, 108374. <https://doi.org/10.1016/j.ecolecon.2024.108374>

- Ho, Y. C. J., & Chang, D. (2022). To whom does this place belong? Whiteness and diversity in outdoor recreation and education. *Annals of Leisure Research, 25*(5), 569–582. <https://doi.org/10.1080/11745398.2020.1859389>
- Holick, M. F. (2004). Sunlight and vitamin D for bone health and prevention of autoimmune diseases, cancers, and cardiovascular disease. *The American Journal of Clinical Nutrition, 80*(6), 1678S–1688S. <https://doi.org/10.1093/ajcn/80.6.1678S>
- Hopkins, N., & Dixon, J. (2006). Space, place, and identity: Issues for political psychology. *Political Psychology, 27*(2), 173–185. <https://doi.org/10.1111/j.1467-9221.2006.00001.x>
- ICF. (2021). *COVID-19 and the global coaching industry*. Retrieved November 10, 2024, from https://coachingfederation.org/app/uploads/2021/05/2021ICF_COVIDStudy_Part2_FINAL.pdf
- ICF. (2026). *What is professional coaching*. Retrieved January 22, 2026, from <https://coachingfederation.org/get-coaching/coaching-for-me/what-is-coaching/>
- Ivaldi, A. (2024). Understanding and restoring the self in nature for well-being: A phenomenological analysis of walking coaching experiences. *Humanistic Psychologist, 52*(2), 206–222. <https://doi.org/10.1037/hum0000314>
- Johnson, P., & Duberley, J. (2003). Reflexivity in management research. *Journal of Management Studies, 40*(5), 1279–1303. <https://doi.org/10.1111/1467-6486.00380>
- Kaplan, R., & Kaplan, S. (1989). *The experience of nature: A psychological perspective*. Cambridge University Press.
- Kellert, S. R., & Wilson, E. O. (1993). *The biophilia hypothesis*. Island Press.
- Kling, K. G. (2024). Accessible nature: Balancing contradiction in protected areas. *Environment and Planning E: Nature and Space, 7*(5), 2036–2057. <https://doi.org/10.1177/25148486241263403>
- Krueger, A. P. (1985). The biological effects of air ions. *International Journal of Biometeorology, 29*(3), 205–206. <https://doi.org/10.1007/BF02189651>
- Leberman, S. I., & Martin, A. J. (2004). Enhancing transfer of learning through post course reflection. *Journal of Adventure Education & Outdoor Learning, 4*(2), 173–184. <https://doi.org/10.1080/14729670485200521>
- Macy, J., & Brown, M. Y. (2014). *Coming back to life: The guide to the work that reconnects*. New Society Publishers.
- Mosston, M., & Ashworth, S. (1989). *The spectrum of teaching styles: From command to discovery*. Addison-Wesley Longman.
- Naess, A. (1989). From ecology to ecosophy, from science to wisdom. *World Futures: Journal of General Evolution, 27*(2–4), 185–190. <https://doi.org/10.1080/02604027.1989.9972135>
- O'Brien, K., & Allin, L. (2022). Transformational learning through a women's outdoor leadership course. *Journal of Adventure Education & Outdoor Learning, 22*(2), 191–202. <https://doi.org/10.1080/14729679.2021.1925565>
- Palmer, S., & O'Riordan, S. (2019). Ecospsychology informed coaching psychology practice: Beyond coaching room into blue space. *The Danish Journal of Coaching Psychology, 8*(1), 21–30.
- Passmore, J., & Sinclair, T. (2020). *Becoming a coach: The essential ICF guide*. Springer.
- Passmore, J., & Tee, D. (2025). *Outdoor coaching: A practical guide for coaches and supervisors working with individuals, teams and groups using blue-green psychology*. Libri Publishing.
- Rai, D. R., Mathew, G., Kumar, Y. R., Pooja, G., & Prasenjit, D. (2021). Evaluating the impact of increased use of digital screens during Covid 19 pandemic on human wellbeing. *Turkish Journal of Physiotherapy and Rehabilitation, 32*, 3.
- Rajasinghe, D., Aluthgama-Baduge, C., & Mulholland, G. (2021). Researching entrepreneurship: An approach to develop subjective understanding. *International Journal of Entrepreneurial Behaviour & Research, 27*(4), 866–883. <https://doi.org/10.1108/IJEBR-10-2019-0601>
- Ratcliffe, E., Gatersleben, B., & Sowden, P. T. (2013). Bird sounds and their contributions to perceived attention restoration and stress recovery. *Journal of Environmental Psychology, 36*, 221–228. <https://doi.org/10.1016/j.jenvp.2013.08.004>
- Richmond, D., Sibthorp, J., Gookin, J., Annarella, S., & Ferri, S. (2018). Complementing classroom learning through outdoor adventure education: Out of school time experiences that make a difference. *Journal of Adventure Education & Outdoor Learning, 18*(1), 36–52. <https://doi.org/10.1080/14729679.2017.1324313>

- Rickard, S. C., & White, M. P. (2021). Barefoot walking, nature connectedness and psychological restoration: The importance of stimulating the sense of touch for feeling closer to the natural world. *Landscape Research*, 46(7), 975–991. <https://doi.org/10.1080/01426397.2021.1928034>
- Ricoeur, P. (1970). *Freud and philosophy: An essay on interpretation*. Yale University Press.
- Roberts, L. (2022). *Coaching outdoors*. Practical Inspiration Publishing.
- Sachs, N. A. (2019). A breath of fresh air: Outdoor spaces in healthcare facilities can provide clean air and respite. *HERD: Health Environments Research & Design Journal*, 12(4), 226–230. <https://doi.org/10.1177/1937586719872396>
- Sibthorp, J. (2003). Learning transferable skills through adventure education: The role of an authentic process. *Journal of Adventure Education & Outdoor Learning*, 3(2), 145–157. <https://doi.org/10.1080/14729670385200331>
- Smith, J. A., Flowers, P., & Larkin, M. (2009). *Interpretative phenomenological analysis: Theory, methods and research*. Sage.
- Smith, J. A., Flowers, P., & Larkin, M. (2022). *Interpretative phenomenological analysis: Theory, methods and research* (2nd ed.). Sage.
- Sobko, T., Liang, S., Cheng, W. H., & Tun, H. M. (2020). Impact of outdoor nature-related activities on gut microbiota, fecal serotonin, and perceived stress in preschool children: The play & grow randomized controlled trial. *Scientific Reports*, 10(1), 21993. <https://doi.org/10.1038/s41598-020-78642-2>
- Turner, A. (2017). Coaching through walking. *The Coaching Psychologist*, 13(2), 80–85. <https://doi.org/10.1002/9781119835714.ch39>
- Vulchanova, M., & Vulchanov, V. (2022). Rethinking figurative language in autism: What evidence can we use for interventions? *Frontiers in Communication*, 7, 910850. <https://doi.org/10.3389/fcomm.2022.910850>
- Walsh, M. (2021). *The body in coaching and training: An introduction to embodied facilitation*. McGraw-Hill.
- Watson, S., & Vasilieva, E. (2007). Wilderness thinking: Inside out approach to leadership development. *Industrial and Commercial Training*, 39(5), 242–245. <https://doi.org/10.1108/00197850710761927>
- Whatmore, S. (2002). *Hybrid geographies: Natures, cultures, spaces*. SAGE Publications.
- Whitmore, J. (2005). *Coaching for performance*. Nicholas Breadley.
- Wilson, E. O. (1984). *Biophilia*. Harvard University Press.