

On the Constraints of Environmental Agency

A Single-Case Phenomenological Examination of Nature Attachment and Moral Distress

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1 RATIONALE

Modern urbanisation patterns have reduced opportunities for regular nature contact among many populations (Cox, Daniel T. C. and Hudson, Hilary L. and Shanahan, Danielle F. and Fuller, Richard A. and Gaston, Kevin J., n.d.), raising questions about consequences for both individual wellbeing and environmental stewardship. While quantitative research has documented associations between nature exposure and mental health outcomes (Bratman, Gregory N. and Anderson, Christopher B. and Berman, Marc G. and Cochran, Bobby and de Vries, Sjerp and Flanders, Jon and Folke, Carl and Frumkin, Howard and Gross, James J. and Hartig, Terry and Kahn, Peter H. and Kuo, Ming and Lawler, Joshua J. and Levin, Phillip S. and Lindahl, Therese and Meyer-Lindenberg, Andreas and Mitchell, Richard and Ouyang, Zhiyun and Roe, Jenny and Daily, Gretchen C., n.d.; Gascon, Mireia and Triguero-Mas, Margarita and Martínez, David and Dadvand, Payam and Forns, Joan and Plasència, Antoni and Nieuwenhuijsen, Mark J., n.d.), these approaches may not fully capture the subjective meanings individuals attach to their nature experiences or the personal narratives through which people understand connections between nature contact and their psychological states. This study explored how one person articulates the psychological impacts of their nature experiences, with particular attention to perceived influences on wellbeing and environmental attitudes, addressing the research question: How do personal experiences with nature appear to shape an individual's psychological wellbeing and environmental attitudes? Through detailed examination of one person's account, this analysis aimed to identify themes that might illuminate broader patterns while respecting the particular context and meaning-making processes of the individual participant.

2 METHOD

2.1 Theoretical Positioning

This study employed reflexive thematic analysis (Braun, Virginia and Clarke, Victoria, n.d.a), positioned within a contextualist epistemology that acknowledges both individual meaning-making and broader social-cultural contexts shaping experience. The analysis sought patterns of meaning across the dataset rather than quantifying explicit content, privileging interpretative depth over descriptive coverage, with themes understood as analytical constructs created through the interpretive process rather than emerging passively from data. As researcher, my own positive experiences with nature and interest in environmental psychology inevitably shaped both the interview and analytical process. Rather than positioning this as bias requiring elimination, I approached it as productive context enabling empathetic engagement while maintaining analytical awareness, attending throughout analysis to how my interpretations reflected particular theoretical lenses and personal experiences, considering alternative readings while making transparent the rationale for interpretations presented here. ## Participant Procedure The participant was a 34-year-old urban professional with self-reported regular nature engagement throughout childhood and continuing into adulthood, recruited through purposive sampling based on their history of diverse nature experiences and willingness to reflect on potential

psychological impacts. Following informed consent assuring confidentiality, a semi-structured 45-minute interview explored the participant's nature experiences and perceived psychological impacts, prioritizing phenomenological attention to lived experience through prompts such as "What happened during that experience?" and "How did you feel then?" rather than "Why?" questions that might elicit intellectualized explanations divorced from experiential immediacy. The interview concluded with invitation for additional reflections and brief summary checking, providing opportunity to clarify misunderstandings or add dimensions not emerging through preceding questions. The audio-recorded interview was transcribed verbatim, producing approximately 6,800 words of text, with transcription capturing paralinguistic features such as pauses and laughter that might convey emotional significance. ## Analytical Protocol Analysis followed (Braun, Virginia and Clarke, Victoria, n.d.b) reflexive approach through six recursive phases. Phase 1 involved repeated reading of the transcript while listening to audio, developing familiarity with both semantic content and emotional tone. Phase 2 generated 78 initial codes through systematic line-by-line examination, capturing both semantic content and latent meanings while maintaining sufficient surrounding context to preserve meaning. Examples included "childhood nature as freedom," "nature reducing mental clutter," "feeling small in natural settings," and "guilt about environmental impact." Phase 3 involved sorting codes into candidate themes through visual mapping, exploring relationships and patterns to identify potential clustering, generating approximately eight candidate themes with tentative boundaries. Phase 4 reviewed candidate themes for internal homogeneity and external heterogeneity, leading to collapsing two overlapping themes, subdividing one encompassing qualitatively different content, and eliminating one weakly supported candidate. Phase 5 defined and named each theme, developing preliminary analytical narratives specifying scope and boundaries while clarifying relationships among themes. Phase 6 involved selecting illustrative extracts and constructing the analytical narrative presented below, with extract selection aimed at providing vivid examples capturing theme essence while representing content range within themes. Throughout this process, I maintained awareness that theme identification represented one possible reading shaped by my theoretical understanding and experiences, considering alternative interpretations while presenting the structure judged most strongly supported by the data.

3 FINDINGS

Analysis identified four themes characterizing how this participant understood psychological impacts of nature experiences. Table~?? presents the thematic structure with brief definitions.

Table 1: Thematic Structure Overview

Theme	Definition
1. Nature as Cognitive Restoration	Nature experiences providing mental relief from cognitive demands through shift in attentional mode
2. Perspective Transformation Through Immersion	Immersive nature experiences producing lasting shifts in psychological perspective regarding self in relation to broader temporal and spatial contexts
3. The Disconnect Between Environmental Values and Action	Tension between strong environmental concern and behavioural realities, sometimes intensified rather than resolved by nature experiences
4. Nature Connection as Moral Motivation	Emotional investment in natural places motivating conservation-oriented actions despite recognized limitations of individual behaviour

3.1 Theme 1: Nature as Cognitive Restoration

The participant consistently described nature contact as providing mental relief from daily cognitive demands, characterizing urban work environments as producing what they termed “mental clutter” requiring constant attention management:

When I'm in the office all day, it's like my brain gets... cluttered. There's too much going on, too many things competing for attention. Even just stepping out to the park at lunch, there's something about being around trees that makes that feeling ease up.

This restoration involved attentional shifts rather than mental emptiness. The participant distinguished between effortful attention required by work tasks and a more receptive, less demanding quality of attention experienced during nature contact, characterizing this not merely as relaxation but as specific cognitive replenishment:

After a walk in natural areas, I notice I can focus better. Tasks that felt overwhelming before seem more manageable. It's like my capacity to concentrate gets recharged somehow.

The restorative quality appeared to emerge from what the participant termed nature's “gentle” engagement of attention through inherently fascinating features such as moving water, rustling leaves, and varied natural forms that captured interest without requiring directed mental effort. This contrasted sharply with urban environments described as demanding constant attention filtering and navigation of social stimuli. However, the participant acknowledged variability in

these effects, noting that brief or interrupted nature contact sometimes provided less benefit than longer, more immersive experiences, suggesting the importance of both quality and duration for restoration to occur, though the participant struggled to articulate precise thresholds distinguishing more from less restorative encounters. ## Theme 2: Perspective Transformation Through Immersion Beyond immediate cognitive restoration, certain nature experiences, particularly those involving remote or expansive natural landscapes, produced shifts in psychological perspective that persisted beyond the experience itself, involving changes in how the participant situated themselves in relation to broader temporal and spatial scales:

Standing on that mountain overlook, looking out at this landscape that's been there for thousands of years... you just feel small. But it's not a bad small, not diminishing. It's more like... my everyday worries and stresses suddenly seem less important in perspective.

This perspective shift involved several interrelated elements: experiencing themselves as embedded within larger natural and temporal contexts exceeding individual human concerns; generating feelings the participant characterized as both humbling and oddly comforting; and extending beyond immediate experience to influence subsequent emotional responses to everyday stressors:

For a while after that trip, when work stress started building up, I could sort of call back that feeling... that sense that this is all temporary, that there's this bigger world out there that just keeps going.

The participant's account suggested that immersive nature experiences could serve as resources for psychological resilience, providing cognitive-emotional tools for managing stress and maintaining perspective during challenging periods. However, the participant noted that these perspective shifts appeared to attenuate over time without regular reinforcement through subsequent nature contact, suggesting the need for ongoing rather than one-time experiences.

The participant also described these experiences as generating feelings of interconnection with the natural world that contrasted with their typical sense of separation from nature in urban daily life:

In those moments, you remember you're part of this. Not above it, not separate from it, but connected. We need these places, these ecosystems.

This recognition of interconnection appeared to bridge psychological and environmental dimensions, representing both a subjective feeling state and a cognitive acknowledgment of ecological relationships, experienced as both comforting, providing a sense of belonging, and sobering, highlighting human vulnerability and dependency on functioning ecosystems. ## Theme 3: The Disconnect Between Environmental Values and Action Despite articulating strong environmental values and expressing concern about ecological degradation, the participant simultaneously described gaps between these values and their behavioural choices, generating psychological tension:

I care deeply about these issues. Climate change terrifies me. The loss of species, the destruction of habitats... it feels like a tragedy. But then I look at my own life and I'm still driving to work, still consuming things I don't really need, still living in ways that contribute to exactly what I'm worried about. There's this contradiction that's honestly uncomfortable.

The participant identified several perceived barriers maintaining this gap: structural constraints of daily life such as transportation infrastructure and work requirements limiting behavioural options; social norms regarding consumption and convenience creating pressures toward environmentally problematic behaviours; and psychological distance between individual actions and environmental outcomes making connections feel abstract rather than immediate. The participant experienced this not as indifference but as a source of guilt and frustration:

It's like I'm part of the problem even though I don't want to be. And knowing that makes the problem worse because now I'm also dealing with feeling guilty, which is exhausting, but the guilt doesn't actually change what i do about it.

Notably, the participant suggested that their nature experiences sometimes intensified this psychological tension rather than resolving it. Moments of connection with natural environments could highlight the severity of environmental degradation and the preciousness of what might be lost, making the participant more acutely aware of the gap between their values and actions: "When I'm hiking in a beautiful forest, I sometimes think about how many places like this have been lost, how many more are threatened. And then I think about my own contribution to that loss, even indirectly, and it feels heavy." This theme revealed complexity in relationships between nature experiences and environmental behaviour that might not be captured by models assuming straightforward pathways from nature contact through positive attitudes to pro-environmental action. ## Theme 4: Nature Connection as Moral Motivation Despite the behavioural inconsistencies described in Theme 3, the participant identified ways that their ongo-

ing nature experiences influenced environmental attitudes and motivated certain conservation-oriented actions through emotional rather than purely rational pathways:

I'm not logical about it, I'll admit. Like, I know intellectually that one individual changing their behaviour isn't going to solve climate change. But I also can't not care. When I think about those places I love... the beaches where I spent summers as a kid, the mountains where I've had those experiences... I want them to still be there.

This motivation appeared grounded in what the participant described as a form of care or even love for specific natural places and the more abstract notion of wild nature generally, experienced as genuine and morally significant despite questions about consequentialist effectiveness:

There's something about spending time in nature that makes you want to protect it. Not in an abstract way, but personally. These places become meaningful to you. You develop relationships with them, almost. And when you care about something, you want to see it preserved.

The participant linked this emotional investment to specific behavioural choices, even while acknowledging their limited scope, describing selecting products with environmental certifications when available, contributing financially to conservation organizations, and advocating for environmental policies. The participant attributed these actions at least partly to their ongoing nature experiences:

Would I do these things if I didn't have those experiences, if I wasn't regularly getting out into natural areas? Honestly, I'm not sure. I think the direct contact keeps it real for me, keeps it from being just an abstract issue.

The emotional connection fostered through nature contact appeared to sustain environmental motivation even when structural barriers prevented more extensive behavioural change, suggesting that personal experiences might serve as counterweight to psychological distance that might otherwise characterize environmental issues encountered primarily through media coverage or scientific reports. However, the participant also expressed ambivalence about whether their individual actions constituted meaningful contribution to environmental protection or merely served to alleviate guilt, creating additional psychological complexity where conservation behaviours potentially functioned simultaneously as genuine expressions of environmental concern and as coping mechanisms for managing distress associated with ecological crisis.

Relationships Among Themes The four themes demonstrated important interconnections suggesting that nature experiences operated through multiple pathways. Cognitive restoration (Theme 1) and perspective transformation (Theme 2) both contributed to overall psychological wellbeing the participant associated with nature experiences, potentially making nature experiences emotionally valued in ways that support the moral motivation described in Theme 4, creating feedback loops reinforcing continued nature engagement. However, the disconnect between values and action (Theme 3) complicated any straightforward pathway from nature experiences through wellbeing to environmental behaviour, revealing that psychological impacts of nature contact might be simultaneously beneficial for individual wellbeing yet potentially insufficient for generating comprehensive behavioural change without complementary changes in structural systems.

4 DISCUSSION

This analysis revealed that one individual's understanding of how nature experiences influenced psychological wellbeing and environmental attitudes involved multiple dimensions operating both independently and in interaction, with nature contact providing immediate cognitive-emotional benefits and contributing to longer-term shifts in environmental perspective and motivation, while also highlighting tensions between environmental values and behavioural realities that nature experiences alone appeared unable to resolve. These findings resonate with existing research documenting relationships between nature exposure and mental health outcomes (Bratman, Gregory N. and Anderson, Christopher B. and Berman, Marc G. and Cochran, Bobby and de Vries, Sjerp and Flanders, Jon and Folke, Carl and Frumkin, Howard and Gross, James J. and Hartig, Terry and Kahn, Peter H. and Kuo, Ming and Lawler, Joshua J. and Levin, Phillip S. and Lindahl, Therese and Meyer-Lindenberg, Andreas and Mitchell, Richard and Ouyang, Zhiyun and Roe, Jenny and Daily, Gretchen C., n.d.), attention restoration (Kaplan, Stephen, n.d.), and pro-environmental behaviour (Soga, Masashi and Gaston, Kevin J., n.d.), while revealing subjective dimensions that quantitative studies may not fully capture, particularly regarding the participant's experience of psychological tension between environmental values and actions, and the complex, sometimes ambivalent ways that nature experiences appeared to influence environmental motivation. The cognitive restoration theme aligns with attention restoration theory (Kaplan, Stephen, n.d.), though the participant's experiential account provides texture regarding how this restoration feels subjectively and what specific features of nature might contribute to restorative effects. The perspective transformation theme extends research on nature experiences and psychological wellbeing by highlighting how certain encounters might produce lasting cognitive-emotional resources for managing stress, though the participant's observation that these effects attenuate without reinforcement suggests the importance of regular rather than occasional nature contact. The theme of disconnection between values and behaviours adds nuance to research examining relationships between nature contact and pro-environmental action, suggesting that these relationships may be mediated by structural and psychological factors deserving greater attention. Several limitations warrant acknowledgment. As single-case analy-

sis, findings reflect one individual's particular experiences and sense-making processes, limiting generalizability to broader populations. The participant's demographic characteristics as urban professional with discretionary time and resources for nature recreation may shape their experiences in ways differing from individuals with different social locations or access to natural environments. The interview method relied on retrospective reflection and verbal articulation, which may not fully capture pre-reflective dimensions of experience or non-verbal forms of knowing. My own relationship with nature and assumptions about its psychological significance likely influenced both the interview process and analytical interpretations, though I maintained reflexive awareness of these influences throughout analysis. The findings may hold implications for environmental psychology and public health approaches to promoting both wellbeing and environmental stewardship. The participant's account suggested that nature experiences might contribute to multiple outcomes simultaneously, including cognitive restoration, emotional wellbeing, perspective shifts, and environmental motivation, implying that policies supporting equitable nature access could serve diverse individual and societal goals. However, the disconnect between environmental values and behaviours suggests that nature experiences alone may be insufficient for generating substantial behavioural change without addressing structural barriers, including transportation infrastructure, urban design, economic systems, and social norms that constrain pro-environmental action even among concerned individuals. This analysis demonstrates the value of qualitative approaches for understanding subjective dimensions of human-nature relationships that complement quantitative research on nature exposure and wellbeing, with themes identified here suggesting patterns that might be explored with larger, more diverse samples through further qualitative or mixed-methods research.

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