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A phenomenological explication of immersion in forest bathing

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ABSTRACT

This study adopts Schmitz's new phenomenological approach to investigate tourists' experiences of immersion in forest bathing. Immersion is a complex phenomenon with relevance in various domains e.g. tourism, sports, and religion. Focusing on the Flow experience, this study aims to uncover diverse aspects of immersion. Through interviews with six participant groups, three themes were identified as central to the immersive experience in forest bathing. The study suggests that managers should consider creating diverse trails to accommodate different immersion preferences, allowing visitors to engage in a variety of immersive experiences and promoting a broader range of well-being outcomes. Furthermore, the study highlights the importance of capturing immersive experiences dynamically and from a descriptive perspective, rather than adopting a static framework.

Introduction

In recent tourism studies, the role of the forest bathing in improving personal well-being has been highlighted (e.g. Antonelli et al., 2022; Hansen et al., 2017). These trends arise from individuals seeking to enhance their health, particularly mental well-being, in response to deteriorating urban living conditions. The COVID-19 pandemic (Stankov et al., 2020) has further heightened concerns about personal health and well-being.

Forest bathing is a form of health tourism that has gained popularity in Japan since 1982 (Ueda, 1995). Forest bathing has gained global recognition as a stress-reduction practice that promotes relaxation (Miyazaki, 2018). This traditional meditative practice involves strolling through a forest at a steady, non-fatiguing pace with periodic stops along the way to rest, and practice breathing techniques (Antonelli et al., 2019). Different regions have developed their own variations of forest bathing practices (Farkic et al., 2021). For example, recently in Japan, forest bathing has been combined with 'climatic topography therapy'. The aim is to reduce stress and strengthen endurance by walking on slopes in forests, making use of local climatic elements such as wind and solar radiation (Ueda et al., 2013). The feature is that to adjust one's pace and get oneself up to a certain level of exercise by measuring the heartbeats per distance walked. But whatever the pattern, the focus is always on the connection between experiencers and nature so that they can enter a state of immersion (Lim et al., 2020). Clifford (2018) identifies key elements of forest bathing, including a slow and relaxed pace, sensory focus, and communication with the natural world (pp. 41–42). This practice offers varying levels of immersion, referred to as 'invitations' by Clifford (2018), emphasizing the importance of immersing oneself in the forest environment and atmosphere. Immersive experiences play a significant role in forest-based recreational activities, and the Global Wellness Summit (2019) predicts a future trend of embracing a 'back-to-nature' shift with the expansion of the forest immersion concept.

Existing research about the effects of forest bathing on well-being is giving much attention to immersion, which is still based on a mechanistic model of psychology, that supports the two-world hypothesis (Withagen, 2022). This perspective reinforces Cartesian dualism and cognitive causation. However, recent studies on forest bathing have introduced mindfulness practices to shift the focus towards the living world and challenge the rigid machine metaphor (Farkic et al., 2021; Lim et al., 2020; Stankov et al., 2020). Nevertheless, these studies lack consideration of philosophical methodologies and fail to illustrate the multisensory relationship between individuals and the environment. Instead, they tend to analyse the five senses independently (e.g. Hansen et al., 2017; Lim et al., 2020; Song & Bang, 2017).

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Hence, the existing frameworks for analysing immersion in forest bathing remain underexplored.

This study therefore responds to the suggestion by Mygind et al. (2019) that attempts to provide a holistic description of an immersive experience. And it follows the works of Schmitz's (2019) new phenomenological approach, which offers an embodied philosophical method that reflecting on the basic structures of lived experience. The research investigates the experiences of six participant groups, focusing on the 'embodied consciousness' (Clifford, 2018). By adopting such a descriptive method, this study presents a new approach to understanding immersion that encompasses both the perceiver and the environment, opening new possibilities for research in this field.

Literature review

Flow experience as a form of immersion

The concept of immersion at present is still in contention. Carù and Cova (2007) have provided a broad and ambiguous definition, suggesting that 'immersion' pertains to a comprehensive perspective on an experience or event, encompassing a deep contextual understanding of the phenomenon with qualitative attributes. Indeed, a lot of studies have shown that immersion is one of the most important experiences in various leisure-oriented activities, rather than just forest-based tourism, for example, mountaineering (e.g. Pomfret, 2006), spa experiences (e.g. Panchal, 2012), and hiking (e.g. Cheng et al., 2015). Meanwhile, studies about various forms of activities have also noted the benefits of immersion, such as activities in a restorative environments (e.g. Wöran & Arnberger, 2012), experiences at a world heritage site (e.g. Cai et al., 2018), and experiences of 'serious leisure' (Elkington, 2010). The insights of the studies mentioned above regarding immersion are primarily based on the field of positive psychology, such as involving hedonia and eudaimonia (Løvoll, 2019). Since immersion as a subjective experience has been defined in various ways, such as the Peak Experience (Maslow, 1970), Flow experience (Csikszentmihalyi, 1988, 1990), and it can take different forms that are yet to be defined (Løvoll, 2019). This suggests that immersion never appears in an invariable or constant form but rather a holistic one (Carù & Cova, 2007) that includes the perceiver and the environment. The notion of Flow exemplifies this relationship as elaborated further below.

Flow is described as a criterion for reaching the best experience by positive psychologist Csikszentmihalyi (1988). It tries to describe an experience of the overarching feeling of being holistically immersed in an action (Csikszentmihalyi, 1975). In this state or experience, people feel simultaneously motivated, effective cognitively, and content (Moneta & Csikszentmihalyi, 1996). This happiness emerges when people not only fulfil their expectations and needs but also exceed and achieve something that seems unexpected. Flow is about people uncovering internal enjoyment and happiness, which can be traced back to Maslow's peak experience defined as a moment of self-actualization (Maslow, 1970). However, what distinguishes Flow from the concept of self-actualization is precisely that Flow focuses on the interaction between the individual and the environment (Ishimura et al., 2008). When a practice fits into one's own hierarchy of aims, it is regarded as enjoyable and strengthens one's self-image (Csikszentmihalyi, 1988). In other words, an optimal psychological state refers to those special moments when things seem to align for individuals in a specific environment (Jackson & Eklund, 2002).

Furthermore, Csikszentmihalyi summarizes the characteristics of when an individual is in a Flow state and identifies nine dimensions of Flow, as follows:(1) challenge-skills balance, (2) action-awareness merging, (3) clear goals, (4) unambiguous feedback, (5) total concentration on the task at hand, (6) sense of control, (7) loss of self-consciousness, (8) transformation of time, and (9) autotelic experience (Csikszentmihalyi, 1990). These dimensions of Flow provide a lens for capturing the immersion for the perspective of the individual-environment. Thus Flow, which focuses on the embodied skill and the situated environment can be seen as a form of immersion.

However, the reductionist dimensions mentioned above oversimplify the Flow experience by treating it as something an individual can easily define and capture in a single image. To counteract this condition, Elkington (2010) articulates a systematic phenomenology of Flow from an experiential-process standpoint. He further emphasizes that comprehending the Flow experience requires examining it within a broader experiential process.

Yet, Elkington's (2010) framework orients to a sphere of meaning in the process of Flow rather than a physical place or environment. In short, this focuses less on the dimensions of embodiment in the physical environment from the individual-environment perspective. Thus, this study adopts an embodied subjective process of Flow to explore various dimensions of immersion, moving beyond a narrow consciousness perspective.

Why a new phenomenology?

The metaphysical tradition of dualism has conditioned us to divide the individual and things. Phenomenology, as a method seeks to bridge this gap by bringing back subject-matter to original experience (Fishwick & Vining, 1992). Phenomenological approach as a well-established method (Goolaup & Solér, 2018) is gaining traction in tourism research (Pernecky & Jamal, 2010). However, Schmitz's new phenomenological method has not yet been widely considered (Pfister, 2019) and the empirical study case is lacking. His method aims to make a distinction between his phenomenology and the traditional phenomenology which is represented by Husserlian or Heideggerian phenomenology. Thus, it is necessary to explain the rationale behind this approach and attest to its suitability for this study.

Husserlian transcendental phenomenology aims to uncover the essential structures of consciousness and intrinsic aspects of experience, providing descriptive insights into the meaning of a phenomenon (Pernecky & Jamal, 2010). However, it implies all phenomena in the world are constituted by consciousness and subjectivity (Spurling, 2013). Hence, the status of intuition seems to be overly privileged. Such phenomenology that bounds subjectivity on a transcendentally and positionally understanding (Griffero, 2019b) is not suitable to interrogate such involuntary immersive experience.

Heidegger comparably suggests that phenomena can only be acknowledged and explored through the stream of consciousness, emphasizing the need to study the meaning of a phenomenon in phenomenology (Wassler & Kirillova, 2019). According to Moran (2000), *Dasein* (Being-there)'s fundamental nature is always being-in-the-world, where the world represents a context, environment, and references that give meaning. *Dasein* refers to human beings and their individual existence. Contrasting Husserl's suggestion by linking the meaning of phenomena to a specific context (Edelheim, 2015). Heidegger focuses on the relationship between *Dasein* and Being itself, replacing intentional structures of consciousness with the meanings of the environment for humans (Moran, 2000) constitutes the theme of earlier Heidegger's study. It aims to reveal the mode of being in the world, highlighting that the reduction is a return to the lived world, which can never be fully revealed (van Manen, 2016a).

However, Heidegger did not extensively address the topic of the body, leaving a gap in his work (Moran, 2000). *Dasein* is still a mind or soul rather than a living human being (Pang & Feng, 2011). Schmitz further developed being-in-the-world by adding a felt body. Unlike Merleau-Ponty's (2012) view which merely highlights the active bodily function against the environment. New phenomenology synthesizes the body and the environment as a situation with no dualism of subject or object. Furthermore, he also recognized the limitations in Husserl's theory and gave priority to felt bodily situations as a means of addressing this gap. Additionally, he highlighted the importance of atmosphere and the subjective resonance it creates in situations. This resonates with Heidegger's analysis of mood as a way the world appears (Moran, 2000).

Indeed, the main idea of new phenomenology 'is the clear distinction between the emotion itself and affective involvement. Emotions are atmospheres' (Schmitz, 1989, p. 21, own translation). The affective involvement describes one's bodily feeling when someone is grasped by any emotion. This bodily feeling is not about the five-senses, rather the 'volumes that are predimensionally and indivisibly extended' (Schmitz, 1989, p. 11, own translation). Atmosphere, is described by Griffero (2017), as the 'extended emotions, […] embodied affects' (p. 72), which affectively 'poured out into the perceiver's pericorporeal (lived, pre-dimensional) space, and "tinges" their situation to the point that it felt-bodily influences their attitude, behaviour and (even) thought' (Griffero, 2019a, p. 24). That is to say, one is connected with environment by atmospheres (emotions). Therefore, paying attention to the perceiver's moods in various contexts and situations is crucial. Schmitz emphasizes embodiment and acknowledges the affective relationship between the environment and the perceiver, offering a suitable lens for studying the lived experiences of immersion.

In summary, the reasons for adopting a new phenomenological approach are as follows: (1) The objective of this study is to describe the core impression of immersive experience in forest bathing from an individual-environmental monist perspective. Thus, neither ethnographic approaches embedded in culture theory (Holloway et al., 2010) nor traditional quantitative approach founded on mind–body dualism are applicable to this study. (2) As mentioned, Husserlian approach neglects the description of individual emotional impressions; Heideggerian approach although centred on emotions, ignores the bodily dimension. Schmitzian approach succeeds in linking the individual to the environment through the concept of affective involvement with a unique insight into the atmosphere. Therefore, when investigating immersion, it is crucial to situate each specific immersive moment. The focus should be on examining and prioritizing the embodied situations and contexts of the perceiver, rather than relying on detached and abstract inquiries. Such approach should be grounded in a realist ontology, where the

prototypic atmosphere is invariable and can be understood by means of being-in-the-world; and objectivist epistemology, where the salient features of the phenomenon are understood by using ordinary language to conceptually identify (Griffero, 2020). Given the presence of quasi-things and involuntary comportment experienced during immersion, this situational ontological-oriented perspective proves more suitable for capturing the nuances of the immersive experience in this study.

Research design

Data collection

The selected fieldwork site for this study is Nopporo Forest Park, which lies on the border of Ebestu City, Kitahiroshima City, and Sapporo City in Hokkaido. It was officially designated as a provincial nature park in 1968 and mainly consists of state-owned forests, encompassing bird and animal sanctuaries (Hokkaido Government, 2022). The park offers ten different courses, with a deliberate variation in course selection for each instance to avoid randomness. Additionally, based on the findings of Lim et al. (2020), guided nature walk typically ranges between 2 and 4 h, while each course in this study has a duration of approximately 2–2.5 h. In accordance with climatic topography therapy principles, each course includes variations in terrain to facilitate participants' adjustment of walking intensity.

Data collection was undertaken between August–September 2022. Samples were collected on six

randomly selected days. Weather conditions ranged from hot, sunny days to cool days with frequent rain showers. Convenience sampling and snowball sampling were used for data collection. Since the aim is to develop detailed descriptions of the immersive experience of people who all only in the context of forest bathing. Following Langdridge (2007) suggestion that sampling should be purposive and homogeneous, participants were recruited based on their shared experience of interest in forest walking. The researcher organized the first group at school and subsequently asked members of the group to refer acquaintances who were also interested in forest walking. In addition, while the survey was being conducted, other people who were encountered in the forest were invited to finish the survey together. Ultimately, a total of 25 people from six groups participated in this survey (see Table 1). The language used during the interviews was determined based on the participants' language proficiency. When all group members were proficient in Chinese, Chinese was used. Additionally, all participants had a native level of understanding and proficiency in Japanese. The data were collected and analysed concurrently, aiming for phenomenological saturation in accordance with the principle of generality (Giorgi, 2009). Specifically, when collecting and validating new or preliminary data no longer produces substantial new information or theoretical insights, the model is considered to have achieved universality and saturation. Given that the sample size exceeded the requirement for saturated data collection, the data were considered saturated.

In this study, focus group interviews were conducted to encourage participants to reconsider and deepen their personal views (Peoples, 2021). 'As a method, group discussion, with its emphasis on capturing diverse descriptions of individual experiences through multiple voices and perspectives within an interactive social environment' (Elkington, 2010, p. 339). These interviews allowed participants to elaborate on their experiences and derive meaning from them, aligning with van Manen's (2016b) goal – '[t]he point of phenomenological research is to "borrow" other people's experiences and their reflections on their experiences' (p. 62) – of reaching a deeper understanding of human experience. Although phenomenological inquiry generally is individualistic, group discussions are advantageous for understanding individuals' personal involuntary experiences. Since each person emphasizes different perspectives and uses different words to describe such experiences (as if the various definitions of immersive experiences in academia), the affective resonance generated through group discussions provides a more reliable reflection of the emotional response to

Table 1. Profile of participants.

Group	Participants	Age	Gender	Country or region	Educational background
1	H. L. Deng	24	Female	China	MS
1	N. Gao	25	Male	China	MS
1	L. Wang	24	Female	China	BS
1	Y. D. Jin	23	Female	China	BS
2	K. Kinoshita	55	Male	Japan	BS
2	Z. Zhang	30	Male	China	MS
2	H. L. Yang	26	Male	China	MS
2	X. Y. Tao	24	Female	China	BS
2	Y. X. Huang	24	Female	China	BS
3	D. D. Hao	26	Female	China	MS
3	Y. D. Chen	29	Female	China	MS
3	X. G. Zhang	25	Female	China	BS
3	Z. Z. Chen	26	Male	China	BS
4	L. M. Hong	25	Female	China	MS
4	L. W. Yang	27	Male	China	MS
4	L. T. Wang	25	Female	China	MS
4	T. Wang	25	Female	Taiwan	MS
5	L. Q. Yao	26	Female	China	MS
5	Y. Chen	25	Female	China	MS
5	X. J. Hu	25	Female	China	MS
5	F. Honoka	26	Female	Japan	MS
6	T. X. Shi	28	Female	China	MS
6	X. B. Wang	28	Male	China	MS
6	Q. D. Li	30	Male	China	PhD
6	Y. Yokoi	28	Female	Japan	MS

events than conducting individual interviews. That is, the direction of the conversation was guided by the dialogue content that centres on their affective consensus of immersive experience.

During the description stage of the interviews, the word Flow was not mentioned once throughout the entire conversation. Instead, each group was given a handout both in Japanese and English that outlined descriptions or dimensions of Flow from FSS-2 (Jackson & Eklund, 2002) and was asked about 'similar experiences to those descriptions when you were walking in the forest'. The linguistic validity of FSS-2 translated into Japanese has been demonstrated by Kawabata et al. (2008). Although the statement describes the dimensions of Flow, since 'being immersed' is one of the hallmarks describing the Flow phenomenon (Csikszentmihalyi, 1975, 1990), the chosen statements can also describe an experience or state of immersion (Løvoll, 2019).

In the next stage of the interviews, the researcher and the participants held a discussion about those immersive experiences. The contents of the discussion revolved around situations, meanings, feelings, and cognitions. For example, questions such as 'How does the experience begin?,' 'What happens after such experiences?,' and 'What kind of sensations did you feel when the experience occurred?' were asked. Acknowledging that individuals typically find it easier to express their opinions and views rather than share personal and sensitive experiential accounts (van Manen, 2016a), the researcher in this study adopted a facilitative approach during the discussions. The researcher initiated the conversation by sharing his own moments of awareness from personal experience, aiming to encourage the participants towards developing reflective awareness.

In addition, when the forest bathing was conducted, participants were recorded with their consent. To avoid influencing the behaviour of participants, recording was done in such a way so that the participants did not know when and for how long they would be recorded. The video was then shown to the participants as soon as the first interview was over. At the same time, a conversation was conducted to describe the lived experiences of immersion. As Zhang (2015) notes, it is useful to introduce artefacts into the interview as a way of stimulating multi-sensory narratives. Considering that 'consciousness itself cannot be described directly' (van Manen, 2016a, p. 94), this step can be a vocative way to lead the participant 'back' into the primal impressional consciousness that is without reflection.

In the final stage of the interview, the researcher and participants jointly discussed and explored the process of those experiences for the participants (including the researcher) in an open fashion. It means that every individual was able to express their subjective feelings and cognition. In order to obtain the pre-reflective experiential accounts (ibid.), sometimes the participants were invited to share an anecdote or story of an experience to describe it. All the discussions and conversations were recorded. The thirteen interview audio files in Chinese and Japanese were translated into English verbatim.

Interpreting

This study primarily followed a threefold method by Schmitz (1989, pp. 30–31, own translation), which includes (1) descriptive stage: an object area is singled out from the relatively trivial experience of life in the specified sense by labelling it as precisely as possible with the means of common language; (2) analytical stage: recurring and intertwining basic features of the domain are singled out and fixed terminologically; and (3) combinatorial stage: by suitable combination of the basic features in the fixed language, complex components of the domain are reconstructed, also as a test of the sufficiency of the analysis. According to van Manen (2016a), the phenomenological inquiry should be a flexible set of methods suitable for the purpose rather than a fixed set of procedure. Thus, this study meanwhile refers to van Manen's (2016a) five fundamental lifeworld themes (pp. 302–310) which outline: relationality; corporeality; spatiality; temporality; and materiality. Each of the five lifeworld dimensions is a fundamental component of every experience that the phenomenologist must actively recognize (Edelheim, 2015). The rationale behind this analytical method can be understood as a commitment to the principle of phenomenological bracketing.

In summary, during the course of the analysis, five original steps were structured: (1) reading through the complete text to obtain a general understanding of the entire account; (2) distinguishing the fundamental 'meaning-units' (Elkington, 2010) within the phenomenon and breaking of the data; (3) clarifying the purpose of each meaning-unit with participants to develop thematic structure; (4) using the five fundamental themes mentioned by van Manen (2016a) to develop a description of each thematic experience; (5) re-reading the whole text to correct the description, and reaching a final consensus through discussion between the researcher and a number of participants. Furthermore, as Merleau-Ponty (2012) states, 'phenomenology involves describing, and not explaining or analysing' (p. lxxi). Thus, the words that include constituting or sense-making explanations were not used in this

study. Rather, vocative words that evoked a common lived experience for us were used. The following section is a retelling of the process undertaken in the act of deriving themes from three immersive experiences based on the participants' descriptions.

Criteria of quality

Phenomenology is unlike positivist studies, which rejects the mind/body dualism. Thus, the validity of such 'anti-foundational approach' (Jamal & Hollinshead, 2001, p. 69) demands a different way to judge. Edelheim (2015) summarized Seamon's (2000) criteria that 'a phenomenological study could be judged to be valuable and valid if it describes *vividly* a phenomenon that the reader can appreciate as being realistic' (p. xx, original emphasis). Meanwhile, van Manen (2016a) mentioned that a phenomenological inquiry can be addressed by following question: 'does the study ask, "What is this human experience like?"; Is analysis performed on experientially descriptive accounts?; Is the study properly rooted in primary […] literature? (p. 350); Does the study avoid trying to legitimate itself with validation criteria derived from sources that are concerned with other (non-phenomenological) methodologies?' (p. 351). Firstly, this study started from 'what is the immersive experience like in forest bathing?' Secondly, constituting or sense-making explanations were delisted. Thirdly, all the analysis was based on the original transcripts. Fourthly, only phenomenological methodologies were referenced. Finally, all the themes were described through discussion with the participants.

Results

Eventually, 16 'meaning-units' were identified (see Figure 1). After discussion with the participants, three forms of immersion were unfolded: (1) immersion-in-the-action; (2) immersion-in-the-environment; (3) immersion-in-the-self; and these three forms switch according to 'returned attention'. The immersive experience emerges when the perceiver is influenced and overwhelmed by a particular physical situation. 'Returned attention' catalyses transitioning between these states.

Immersion-in-the-action

In the situation of 'immersion-in-the-action', three key moments were distinguished: (1) perceiving affordances of difficulty, and challenging arising corporeality; (2) living through a distorted sense of time; and (3)

obtaining a sense of completion. The following narrative statement illustrates these moments.

> I thought I almost sprained my leg on the way down, and it scared me for that moment (Group 3, X, G. Zhang); I had to concentrate fully on my steps to avoid any further mishaps. (Group 6, X, B. Wang)

From the narrative above, the challenging corporeality presents a moment to slow down. When being exposed to elements in the forest environment that cause tension or difficulty, challenging corporeality immediately draws attention back to this moment and allows one to take control of their body to respond to the challenge.

What is common, however, is the reaching of a state of 'immersion-in-the-action'. It is illustrated here by followed narratives:

> I dance quite a bit, so I often find myself in a similar situation. I have to sync my body to the music and be mindful of my movements, so my focus is solely on myself at that moment. I don't hear any other noise. It's similar to the feeling I had earlier when I was walking. Walking uphill or downhill requires more concentration for safety reasons, just like how everyday stress can demand our attention. Reaching the summit gives me a sense of achievement, like completing a game. (Group 4, T. Wang)

In this way, the participants' bodies begin to act where and when certain difficulties are felt, and then become immersed in a certain way of behaviour. The participant who shared the aforementioned narrative has been dancing since her second year of university (roughly five years as of 2022), typically three times a week. Despite the strains, she views it as an accomplishment or badge of honour. Csikszentmihalyi (1990) suggests that activities which require commitment, discipline, and effort are more conducive to Flow experiences. While Wang's dancing experiences may not strictly fit the criteria for Flow, it is highly probable that Flow is present during the activity. Additionally, the sense of immersion reported during dancing is similar to the immersion experienced during walking, further supporting the presence of Flow in forest bathing.

Furthermore, as the following narrative about a sense of completion states:

> In the past, I used to plan the journey based on others' experiences on the internet, but for this route, I had to make my own decisions and embark on the challenge as if it were an adventure. When I completed the challenge, I felt an overwhelming sense of achievement. (Group 2, H, L. Yang)

This account is from a participant who participated in forest bathing for the first time. In the absence of the ability to rely on others' experiences and a lack of
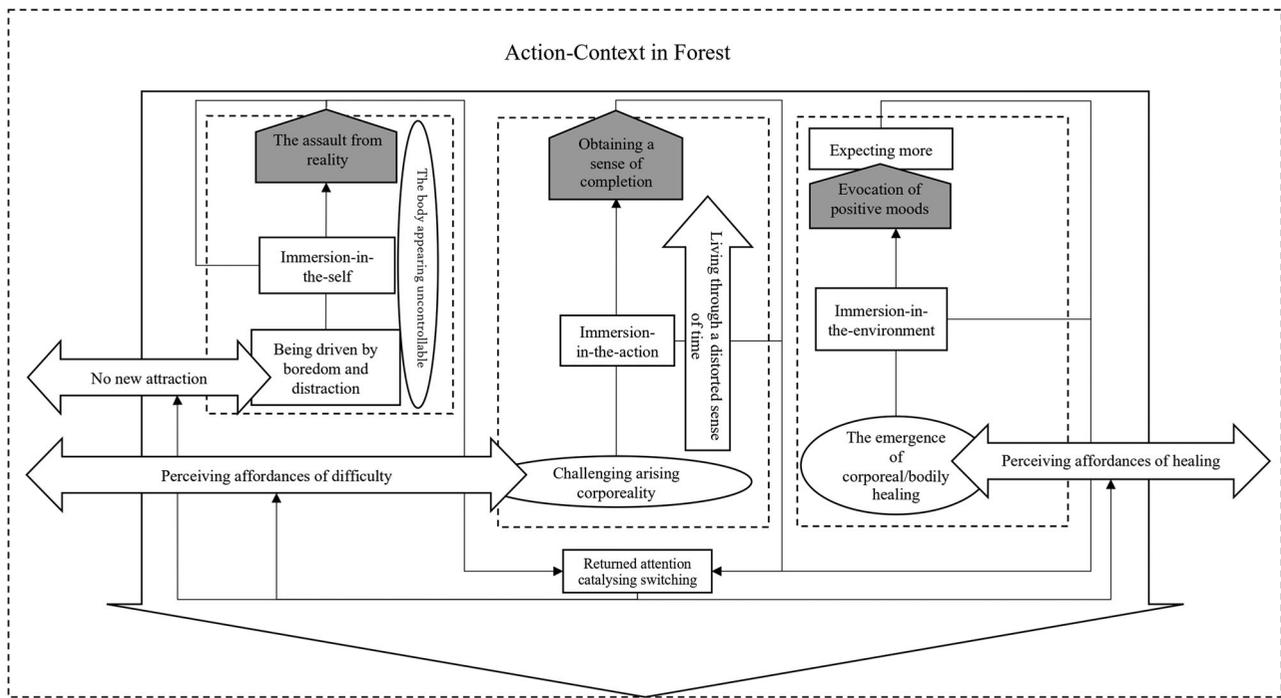
Figure 1. Three forms of immersion and returned attention.

predictability, individuals must navigate an unknown path independently. This scenario offers a nuanced connection to an existential anxiety, wherein individuals temporarily experience a state of uncertainty and concern towards the future. Although individuals have no mind to care about it while in the state of 'immersion-in-the-action', the mood is there. More precisely, 'a basic state-of-mind of Dasein' (Heidegger, 1962, p. 179), this anxiety is amplified during the guideless forest bathing experience. Once the state suddenly passes, individuals may experience a sense of relief and regain the ability to engage with the world around them.

Immersion-in-the-environment

In the situation of 'immersion-in-the-environment', three key moments were distinguished: (1) perceiving affordances of healing, and the emergence of corporeal/bodily healing; (2) evocation of positive moods; and (3) expecting more. The following narrative statements illustrate such moments.

> The feeling of stepping on the soil is completely different from stepping on the pavement outside. You don't usually see things like chestnuts falling down! Even if they are there [on the outside], you might not notice them; These small elements create a unique image of the forest, a distinctive spatial environment. (Group 4, L, M. Hong)

Based on the narratives above, when people feel the healing affordances from the forest, they are unconsciously and actively drawn into the forest environment, immersing themselves in its surroundings. This is largely due to the overall forest-like atmosphere created from the combination of sensory inputs such as sound (the refreshing sound of the wind through the trees), smell (the unique scent of trees, soil, and even insects), and touch (the soft, delicate sensation of touching the plants). Such atmosphere affects people's sense of place, and even ordinary elements can become 'natural' in the forest environment. On the contrary, any artefact can become very 'extraordinary' in the forest environment. When individuals are in the context of forest bathing, the forest becomes an image or a place that can alleviate symptoms such as tension, feeling stuck, and anxiety.

Meanwhile, positive moods arise, along with expectations for more similar experiences. The retrospective experience from a participant is as follows:

> The trees around me are tall and dense, with sunlight filtering through the branches. There's green all around, creating a sense of isolation from the world […] It's peaceful and beautiful in its silence. (Group 6, T, X. Shi)

It resembles the mindfulness in the forest by Farkic et al. (2021) which characterized by three features: (1) awareness of the restorative powers of the forest; (2) focused attention to the sensorium; and (3) active reflection on

'luxurious moments'. The relationship between (1) and (2) parallels the relationship between affordance and corporeality. The actively reflecting on 'luxurious moments' can be viewed as 'expecting more'. This is demonstrated in the following narrative:

> When something I like, like the woodpecker earlier, appears, I start to look forward to what might come next, like whether another woodpecker will appear or what the next fork in the road will be like. (Group 5, L, Q. Yao)

Attracted to things that provide a sense of healing, individuals become immersed in their environment for a while. Individuals further find enjoyment in distancing themselves from daily thoughts and experiencing the quietness of the forest as well as its restorative benefits. Through the experience of forest bathing, individuals actively reflect on the 'quietness' and what it means to him/herself, as a conscious and meaningful experience of immersing oneself in the forest triggers this shift in thinking.

Immersion-in-the-self

In the situation of 'immersion-in-the-self', three key moments were distinguished: (1) being driven by boredom and distraction; (2) the body appearing uncontrollable; and (3) the assault from reality. The following narrative statements highlight moments of being driven by boredom.

> It feels like the same scenery is spreading out throughout the environment, and it makes me feel dizzy and closed in (Group 6, X, B. Wang); When walking in the city, there are a lot of stimuli and there's always something new, but in the forest, it's just trees everywhere, and it all looks the same. Basically, I'm tired of it. (Group 1, N. Gao)

The above passage describes a phenomenon that has not been touched upon in previous research. Such a phenomenon mainly occurs when participants are not exposed to new stimuli – such as the healing or suffering affordances mentioned above – and are surrounded by a quiet environment. In such cases, 'negative moods' may arise in the current environment. However, this is by no means equivalent to a 'negative experience'. Rather, because immersion may be a result of emotional empathy (Ashby et al., 1999), triggering participants to turn inward and reconnect with themselves and nature, leading to healing. This quiet and reflective state resembles the luxurious items (Farkic et al., 2021), and serves as a prerequisite for experiencing 'immersion-in-the-self'.

It meanwhile suggests that sometimes natural power might have 'negative effects' on the attention of individuals. It induces individuals to make their minds blank or

forces them back to reality. Based on the following narrative, this state is named as 'an assault from reality':

> Not only physical fatigue but also mental fatigue. Maybe it's because all the surrounding scenery looks the same […] Anyway, I don't want to see anything anymore (Group 5, Y. Chen); Also, during walks, if there is nothing new to see, I end up in a state of just thinking about other things […] Even when walking, I didn't feel like I was actually walking, I just kept moving forward, feeling numb in my limbs and walking as if I were moving forwards. (Group 5, X, J. Hu)

In this state, one becomes bored with the monotonous environment. Consequently, their attention becomes scattered, and they become immersed in their own world, causing their thoughts to temporarily leave the forest. At the same time, the body moves automatically and numbly, as if it were a zombie.

In contrast to the previous states mentioned, this state holds particular significance as the participant's consciousness fully turns to themselves. Previous research has characterized this inward immersion as an escape from daily routines, facilitating self-reflection and dialogue. For example, Konu (2015) notes that forest bathing allows participants to momentarily detach from the busyness of everyday life, enabling them to listen to their inner voice and engage in self-examination. However, based on the above analysis, while it is certainly possible to engage in self-dialogue and enjoy nature in this state as previously mentioned, often, the following situations arise:

> As I was lost in thought, my mind went blank, and I lost all control over my body. I almost slipped and fell a few times, and at one point, I unknowingly stepped into a muddy swamp. (Group 1, N. Gao)

The participants walk without being aware of their surroundings or their own actions, sometimes thinking about daily tasks such as work or study, and at other times being a state of not thinking about anything.

On the other hand, if the Flow is defined as concentrating attention in 'a very narrow focus of attention' (Løvoll, 2019, p. 4), then this state can probably be considered as something that diffuses attention over a very wide focus range, while not thinking about anything in particular or specific. This only occurs when there are no new stimuli from the environment for a while. If an idea emerges during this state, one will immediately become engulfed in 'the assault from reality'.

Returned attention catalysing switching

> Once you start walking on such a flat road, you get a feeling that your thoughts are drifting away, but suddenly you realize that there is a steep slope in front of

you. Then you pull your thoughts back and focus on your steps. However, you don't just focus on your steps, but also pay attention to the surroundings, such as changes in the road material, and even start thinking about how they are maintained. (Group 6, T, X. Shi)

Based on the above account, this switching can be attributed to the ever-changing focus of attention, akin to perceiving the environment from the corner of one's eye. It highlights the inherent impossibility of complete immersion. People unconsciously and involuntarily perceive their surroundings, with the distinction lying in whether they notice the moments of change or not.

Discussion

This study adopted an emic perspective to phenomenologically investigate the participants' immersive experience. It framed the immersive experience as an embodied situation that prioritizes the significance of the environment to immersion. Given the limited research on the benefits of forest bathing in tourism studies (Ohe et al., 2017), this study made contributions to the immersion in forest bathing. It unfolded the intertwining basic features of the immersion between individual affects and environment. It agreed with Withagen's (2022) definition of emotion which is described as 'a field of invitations [from our lived environment] that change over time' (p. 116). It therefore suggests the emotion is an 'in-between' (Griffero, 2020; Schmitz, 1989), which includes both personal and destination factors. It demonstrated that immersion episodes are accompanied by strong emotions of different natures, supporting the current research on the affective aspects of extraordinary or 'peak' experiences (e.g. Kirillova et al., 2017a; 2017b; Løvoll, 2019).

It then contributes to the limited literature on existential themes in tourism, such as anxiety, and authenticity. Designing and planning the destination should consider participants' anxiety as a fundamental aspect of their experience. 'Negative moods' are as common as positive moods. It adds evidence to the literature such as Xie and Fan (2017), Bichler and Peters (2021) among others, that connected hardship, stress, and emotional pain to personal well-being in the journey. However, the current discussion on potential 'negative moods' during forest bathing lacks depth. From an existential standpoint, acknowledging these moods enables individuals to embrace authenticity and a sense of wholeness (Wang, 1999). Authentic moments, as described by Moran (2000), are when individuals feel at home with themselves and strive for completeness. Dasein's inherent unfinished nature drives it towards holistic experiences (Heidegger, 1962), contrasting with the fragmented

tourist/local gaze in tourism (Wassler & Kirillova, 2019). Therefore, further research is needed to explore strategies that mitigate the lack of explicit consciousness and foster authentic experiences (Edelheim, 2015).

Moreover, this study shows the significance of boredom in a whole journey. Heidegger (1996) contends that 'boredom is not simply an inner spiritual experience, rather something about it, namely that which bores and which lets being bored arise, comes toward us precisely from out of things themselves' (p. 83, original emphasis). Indeed, as participants continue walking, they realize how similar the scenery of the forest looks. 'Immersion-in-the-self' shows while their bodies remain in the forest, their minds start to resist this sameness and may even detach from the surroundings. Consequently, they try to pass time and hide behind the things of reality – by becoming overwhelmed by another more saturated phenomenon (Marion, 2002). It is like an escape from escapism – in that moment, the things that have escaped reality seem to become more meaningful. Notably, boredom alleviates the mundane aspects of daily life. Through introspection prompted by moments of inspiration, they realize that their daily existence may not be as negative as they initially thought. As Halgreen's (2004) states that boredom can be an attractor and can be interpreted as a unique and genuine quality exclusive to particular locations, not affected by tourists commodification.

However, the application of 'negative moods' seems contrary to the *Attention Restoration Theory*. This theory takes a cognitive perspective to focus on the restorative effects of nature on cognitive functions, particularly attention. Kaplan and Kaplan (1989) propose two types of attention: voluntary attention and involuntary attention. Voluntary attention requires conscious effort and is directed towards specific objects, serving the purpose of work and survival. Nevertheless, excessive use of voluntary attention can lead to errors in tasks (Kaplan, 1995). In contrast, involuntary attention occurs automatically and can be captured by the power of nature (Taylor & Kuo, 2009). Nature has the ability to refresh and energize individuals, whether through viewing natural scenes or engaging in outdoor activities, allowing them to replenish voluntary attention (Kaplan & Talbot, 1983). This process can be likened to recharging attention, much like how a power bank recharges a battery. Yet in this study it seems to be opposite in several situations.

The catalysed switching can be explained by the intensity of concentration, a crucial factor also present in the Flow phenomenon (Csikszentmihalyi, 1990). The stronger the focus of attention, the stronger the Flow

experience can be. Additionally, there is a positive correlation between the strength of attention and the depth of happiness (Løvoll, 2019). Hence, a higher frequency of switching implies lower concentration and reduced happiness levels.

Conclusion

This study provides a new framework for discussing immersion. It outlines three forms of immersion and a trigger that catalyses the immersion switching. It broadens the understanding of immersion and its consequences. In previous research on activities of tourism, such as outdoor activities, intrinsic motivation like Flow is often regarded as the core of the leisure experience (e.g. Csikszentmihalyi, 1990; Mannell & Iso-Ahola, 1987). Likewise, some research explains that forest bathing should focus on 'slowness' and 'silence' (e.g. Farkic et al., 2021; Komppula et al., 2017) to help people achieve immersion. However, the results obtained in this study suggest that each of the three forms of immersive experiences has its own effects of well-being in different situations, and there is no framework or conclusion that constitutes a core. Further to this, the description from participants reveals that each form of immersion gives different meanings. The shift towards a perspective of new phenomenology challenges some of those conventional thoughts and reframes immersion as being dynamic, emergent, and embedded with personal journeys.

Meanwhile, based on the three forms of immersive experiences, trail design can have implications for environmental preparation. Different trails can offer diverse immersive experiences and well-being effects to participants. Kil et al. (2021) emphasize the participants desire for varied effects in forest bathing. Therefore it is recommended that managers offer multiple forest bathing trails of varying lengths with various natural features to achieve higher levels of experience for forest bathing enthusiasts. Clear information about these opportunities should be provided on websites and at trailheads to accommodate both first-time visitors and long-term stayers. Treating forest bathers as a homogeneous group may limit the range of experiences they can have in nature. Hence, it is crucial to classify and design forest bathing and walking trails based on the specific demands of participants. Here are three considerations that can be recommended:

(1) 'Immersion-in-the-action' expects that designing trails with varied physical challenges, such as terrain changes and mountain climbing. Longer and more challenging trails can provide 'superior solitude experiences' (Kil et al., 2021) in undeveloped environments.

(2) 'Immersion-in-the-environment' expects that designing trails for relaxation and stress relief by showcasing the attractiveness of the environment and incorporating novelty and changes. Creating attention restoration sites can help participants disconnect from daily work and activities (Kaplan & Kaplan, 1989), reducing the risk of boredom.

(3) 'Immersion-in-the-self' expects that designing trails for self-improvement and focused thinking by minimizing distracting and artificial elements in the environment, as well as potential sources of anxiety such as terrain and animals. Creating a safe public space that promotes slow and natural interactions with nature is crucial for transformative experiences (Howard, 2012).

Briefly, comparing destination profiles based on segmentation is crucial for determining market strategies in different resource contexts (Bichler & Peters, 2021). Designing trails with a well-planned course rhythm can enhance the immersive experience for participants. Given the background that the forest-based well-being tourism is still in its infancy, the suggestion to design can also promoting resource management and sustainable development.

Furthermore, the findings can serve as a basis for tourism education, enabling professionals to better comprehend and facilitate participants' immersive experiences in forest bathing, leading to improved service quality and guidance. For instance, when participants' preferences are primarily focused on the 'immersion-in-the-environment' during a guided forest bathing, it is recommended that tour guides facilitate participants' immersion in the forest atmosphere at the beginning of the activity. Meanwhile, they should ensure periodic rest breaks along the journey and guide participants to appreciate the surrounding attractiveness when they feel fatigued.

The study is not free of limitations. Firstly, the analysis of this study is limited to surveys conducted in Nopporo Forest Park, making it difficult to generalize the findings. Considering the diverse forest walking courses worldwide, further research is needed to expand upon the conclusions. Secondly, the study was conducted during the period of July to September in Sapporo, which may limit the understanding of seasonal changes in the forest and participants' sensory perceptions. When designing forest walking courses globally, it is important to consider the natural and cultural attributes of each site. Finally, the study did not cover all age groups, and the discussions did not consider potential illnesses

or disabilities of each participant. Future research should explore these factors from a more comprehensive perspective.

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

Ethics statement

This study, which does not involve participant privacy concerns and obtained signed consent forms prior to data collection, has been deemed exempt from ethics approval by the Graduate School of International Media, Communication, and Tourism Studies, Hokkaido University.

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