

# How Personal Transformation Occurs Following a Single Peak Experience in Nature: A Phenomenological Account

Journal of Humanistic Psychology  
1–24

© The Author(s) 2017

Reprints and permissions:

[sagepub.com/journalsPermissions.nav](http://sagepub.com/journalsPermissions.nav)

DOI: 10.1177/0022167817714692

[journals.sagepub.com/home/jhp](http://journals.sagepub.com/home/jhp)



Lia Naor<sup>1</sup> and Ofra Maysel<sup>1</sup>

## Abstract

This study focuses on a particular form of positive transformation taking place in the wilderness, defined here as peak transformative experience. A large number of studies have been conducted on the negative transformative effect of a single traumatic event, while very little research has focused on positive transformational events. We addressed this lacuna by studying a unique case of quick positive transformation, taking place in nature. This study goes beyond the common description and outcome of the peak experience by focusing specifically on the process of personal transformation. Applying a phenomenological approach, 15 participants aged 28 to 70 years, who identified as having had such an experience, were interviewed. Analysis of these interviews revealed the “essence” of the peak experience in nature which led to the rapid transformation. This essence involved the recognition of formerly unknown aspects of self, projected onto nature and experienced in an embodied way, evoking an insight into a meaningful personal issue. Choosing to own these newly discovered aspects and integrate them resulted in rapid personal transformation. The findings are discussed, underscoring the centrality of nature in this process, the importance of free choice, and

---

<sup>1</sup>University of Haifa, Haifa, Israel

## Corresponding Author:

Lia Naor, University of Haifa, 199 Aba Khoushy Avenue, Mount Carmel, Haifa 31905, Israel.

Email: [liawaysofknowing@gmail.com](mailto:liawaysofknowing@gmail.com)

the potential for harnessing positive transformative peak experiences in nature for human development.

**Keywords**

nature, peak experience, transformation, identity, phenomenology

The objective of this study was to understand the distinct qualities of rapid personal transformation evoked by a single peak experience in nature. Although well researched from many different aspects, we have yet to understand in a satisfactory way how nature contributes to this process. Our starting point is the profound and beneficial human–nature connection, conceived by Searles (1960) as “one of the most basically important ingredients of human psychological existence” (p. 27). This notion has been studied at length, featuring an extensive and growing body of empirical evidence portraying a correlation between direct contact with nature and healthy optimal human development (Adhémar, 2008; Kaplan, 2001; Pretty et al., 2007).

Nature’s profound and beneficial effect on human development has been traced to the human’s biological, psychological, and evolution-based design, which has generated several key theories. The “biophilia” theory was the first theoretical basis pointing to the innate human tendency, rooted in our biology, to affiliate with nature as symbolizing life (Wilson, 1984). The biophilia hypothesis (Kellert & Wilson, 1995) stresses the human need for direct contact with nature from an evolutionary psychological perspective as a basic construct of human development, contributing to one’s identity. Inspired by these theories, Ulrich (1999) presented the psychoevolutionary theory, which emphasized the human evolutionary preference for natural landscapes due to the immediate sensory and emotional human response. From this perspective, humans experience nature in a way that may enhance adaptive behaviors and reduce health-related problems, well before these have been analyzed through cognition. According to Kaplan and Kaplan’s (1989) attention restoration theory, the natural environment, distinguished by these unique characteristics, enhances psychological well-being by allowing a form of effortless, involuntary, and direct attention to take over. This form of cognitive perception, unique to wilderness experience, enables the recovery of limited and fatigable cognitive resources, eliciting quiet attention, and self-reflection, which various studies have shown to be a key factor for effective functioning, self-awareness, and personal growth (Aspinall et al., 2013; Basu, Kaplan, & Kaplan, 2014; Hartig, Evans, Jamner, Davis, & Gärling, 2003).

Based on these theories, an extensive and growing body of empirical evidence in various fields shows a correlation between direct contact with nature and healthy and optimal human development (Adhémar, 2008; Hartig, Mitchell, de Vries, & Frumkin, 2014; Kaplan, 2001; Ryan et al. 2010). Besides the positive effects of nature contributing to well-being (its restorative effects), there are clear indications that nature can also contribute to profound experience and to personal transformation (Cohen, Gruber, & Keltner, 2010; Greeley, 1974; Hood, 1977; Keutzer, 1978; Laski, 1961; Pretty et al., 2007). However, the specific process by which swift personal transformation occurs in nature has yet to be more fully described.

Furthermore, although understanding and facilitating change and transformation is arguably quite fundamental to psychology and in particular its applied branches, very little is known about the process and potential of a single transformative positive experience and very little empirical research has examined the factors potentially leading to their occurrence in general and in particular in nature (Miller & C’de Baca, 2001). The result is a serious gap in understanding their influence (Yair, 2008), and their potential for self-development and mental health (Cardeña, Lynn, & Krippner, 2000; Palmer & Braud, 2002). The present study addressed this lacuna by focusing on the role of a single peak experience in nature in a transformative process, defined in this study as a *peak transformative experience*.

## Peak Experience

Abraham Maslow (1975) coined the term *peak experience* to describe profound moments lasting from seconds to minutes that were characterized by clarity of thought, sharpened senses, and a feeling of an “ultimate reality” eliciting feelings of unity and great joy. In Maslow’s (1975) seminal work *The Farther Reaches of Human Nature*, peak experience was associated with ultimate human development, presented as a significant experience that provides an opportunity for positive change and transformation. This process often involves a significant shift in the individual’s value system from ego-centered values to values of connection and service to others. In light of this, peak experiences may be of great importance to the study of psychological health, self-actualization, and human flourishing.

Empirical and theoretical scholarship has grappled with defining peak experiences and studied their occurrence and manifestations. These experiences are commonly described as surprising and powerful insight-laden, life-validating moments in which everyday perception is surpassed by a much greater and exalted state of consciousness involving a new and expansive knowing of self and/or the world (Goud, 1995; Greeley, 1974; Laski, 1961;

Maslow, 1969; Skalski & Hardy, 2013). The prevalence of the peak experience has been assessed by several studies to date that point to their commonality among at least 65% of the general population as well as their association with psychological health (Greeley, 1974; Hay & Morisy, 1978; Keutzer, 1978; Noble, 1987; Wuthnow, 1978). Most of the research has dealt with the definition, prevalence, taxonomy, and outcomes of peak experiences (Maslow, 1964; McCain & Andrews, 1969; Noble, 1987; Owens, 1972), focusing less on their transformative effect.

Currently, a distinction has yet to be presented between those experiences that are described as peak experiences and those experiences that have a positive and long-lasting impact on one's life. In accordance with our research objective, this study is primarily concerned with those experiences that resulted in positive personal transformation.

## **Transformation**

In general, personal positive transformation is described as a profound shift in one's experience of consciousness that results in long-lasting changes in worldview or ways of being, and in changes in the general pattern of the way one experiences and relates to oneself, others, and the world (Coburn, 2006). In most accounts, the process of personal transformation is a gradual process of awareness and personal growth, such as in psychotherapy that occurs over a period of months or years and results in specific alterations in a given behavior or diagnosed mental disorder (Baban & Craciun, 2007; Bien, 2004; Fosha, 2006; Higginson & Mansell, 2008).

### *Transformative Positive Experience*

However, profound positive change may take a different course and may involve a moderately rapid shift (Hayes, Laurenceau, Feldman, Strauss, & Cardaciotto, 2007), often following a transformative experience. Transformative experiences (often peak experiences) are considered to be those events that lead to a lasting change in the structures and functions of consciousness of mind, of emotions, of perceptions, of identity, and of self-image (Metzner, 1994; Vieten, Schlitz, & Amorok, 2009). We are currently only starting to learn about positive peak experiences that lead to transformation.

Miller and C'de Baca (1994, 2001), pioneers in this area, provided some of the most significant empirical research in the field of abrupt transformative positive experience, termed by them "quantum change." Quantum change is defined as a deep shift in core values, feelings, attitudes, or actions in a relatively short period of time, described by participants as "a vivid, surprising, benevolent, and enduring personal transformation" (Bien, 2004, p. 493).

Analysis of interviews with 55 participants (31 females and 24 males) who retrospectively recounted such experiences, point to the revealing of an important insight or “truth” that altered their value system. These meaningful insights served as life-altering centers of motivation, leading to a fundamental change in perception of self and reality and one’s identity (Miller, 2004). These alternations involved perceiving material things as not important; grasping the importance of love, and awareness of the interconnectedness of all beings. A 10-year follow-up study involving 30 of the original participants found that this new value ordering was maintained with little variability (C’de Baca & Wilbourne, 2004). Their study points to the transformative effect of a single experience of profound insight, focusing on the type of insight and outcomes but not on the environment that may have influenced the experience or the actual process, leading C’de Baca and Wilbourne (2004) to conclude that “very little is known about the process of a single transformative positive experience” (p. 540). The present article has addressed this lacuna by specifically studying the distinct role of nature and the inner process that led to these profound outcomes.

### *Nature and Positive Transformation*

Nature and the wilderness in particular are commonly cited triggers of peak experiences (Cohen et al., 2010; DeMares & Krycka, 1998; Greeley, 1974; Hood, 1977; Keutzer, 1978; Laski, 1961; McDonald, 2008). Whether through the landscape itself or the types of activity, the experience of deep immersion in nature has been found to contribute to a sense of belonging and connection to the world. This embodied acknowledgment may alter one’s perceptions toward a more holistic, ecocentric perspective which in turn, may result in personal transformation. (Cohen et al., 2010; Pretty et al., 2007).

In Ellison and Hatcher’s (2007) extensive review and analysis of personal wilderness accounts among women hiking alone over 2,000 miles on the Appalachian Trail, this perception shift was elicited by solitude in nature. Solitude allowed the time and space for self-reflection within a nonjudgmental environment. This theme is prevalent in a variety of studies among participants involved in various states of wilderness immersion (Hammit & Brown, 1984), including canoeing (Swatton & Potter, 1998), hiking (Fredrickson & Anderson, 1999), solitude (Coburn, 2006; Ellison & Hatcher, 2007) and modern vision quest ceremonies (Williams & Harvey, 2001; Wilson, 2011; Wood, 2010). Analysis of research results point to deep immersion in nature and solitude enabling self-examination, critical reflection, and reconnection to self, serving as key components by which former attitudes, beliefs, and behaviors may be challenged and altered, leading to transformation.

Brymer, Downey, and Gray (2009) found that this was the case among individuals participating in extreme sports in nature. For some, the shift in self-perception resulted in dramatic changes in other aspects of life. Shostak-Kinker's (2012) study focusing on the effects of long-term engagement in rock climbing illustrates this. The researchers describe the engagement in nature as a "joyous level of concentration" that, over time, resulted in "tangible mental benefits which transfer to other parts of their lives (e.g. fostering an appreciation of simplicity in life while instilling presence in the moment) influencing a climber's core life values" (p. 2).

The significance of the wilderness environment for eliciting profound and transformative experience lies not only in its inherent restorative ability but also in enhancing sensory aspects. This was a main finding in McDonald and Schreyer's (1991) integrated, critical synthesis of many empirical studies related to the spiritual benefits of leisure. These researchers conclude that wilderness experience "creates a unique combination of extreme states of consciousness and increased sensory acuity" (as cited by Fredrickson & Anderson, 1999, p. 23). They also state that visual, gustatory, olfactory, auditory, and kinesthetic senses are enhanced when in a wilderness setting. Additional findings by Beck (1987) support this notion, leading him to conclude that "wilderness-like settings heighten one's level of sensory awareness, resulting in peak experiences" (Fredrickson & Anderson, 1999, p. 23). Such peak experiences, which may occur spontaneously in nature, involve absorption in the moment, a sense of timelessness and spacelessness, feelings of profound awe, and experiences of unity. In many instances, these experiences contribute to an expanded consciousness and may lead to major self and life transformations (McDonald, Wearing, & Ponting, 2009; Terhaar, 2009; Williams & Harvey, 2001; Wood, 2010).

From this perspective, natural surroundings deeply arouse us and connect us to our bodies, senses, emotions, instincts, and environments, ultimately provoking different ways of being and doing that in turn raise the potential for broader definitions of self and life (Trace, 2003). These unique aspects of nature, which have profound beneficial effect, have led to the concept of nature as a *transformational space*, the focus of Grady's (2009) qualitative study. Grady's depiction provides an insightful overview of the unique characteristics of nature that contribute to it being conceived as a transformational space. These include (a) feeling connected to something bigger than oneself that evokes spiritual experience, (b) peaceful attunement with the environment reminiscent of the primary object relationship, (c) a sense of awe and elevation in the face of nature's intensity and power, and (d) freedom from the need to comply with societal expectations allowing connection and expression of one's true self.

In fact, nature in its wholeness is deemed a vital life source through which one connects to the fullness of human potential and which leads to healthy development (Bratman et al., 2015; Kellert, 1998; Oliver & Ostrofsky, 2007). This may be the reason why people resonate, synchronize, and benefit profoundly from connection with nature in ways that cannot be substituted by alternative means (Brymer, Cuddihy, & Sharma-Brymer, 2010). As such, contact with nature may be a critical resource for mental health, one which is especially important in our rapidly urbanizing world (White, Alcock, Wheeler, & Depledge, 2013).

The research thus far has provided ample insights into the uniqueness of the natural environment, including being far from daily duties and stimulation, sensory enhancement, a vast landscape enabling the time and space for introspection and deep contemplation, solitude, and nature evoking awareness of interconnectedness. However, we currently know very little about the process of transformation and how it is achieved moderately quickly following a single peak experience in nature. The objective of the present study was to expand our knowledge of the ways and means by which such a process of transformation in nature occurs. We focused on the perspective of those undergoing such an experience and applied qualitative phenomenological methodology.

The main research questions addressed in this study were as follows:

**Research Question 1:** How has peak experience in nature led to rapid personal transformation from the perspective of those undergoing that experience?

**Research Question 2:** How was nature implicated in this process?

## Method

### *General Approach*

Qualitative methodology was chosen as the method of inquiry because it would enable a personal and sensitive rapport with participants while capturing the richness, depth, and complexity of the experience from the individuals' perspectives. Qualitative methodology is especially appropriate when a phenomenon cannot be readily observed and researchers seek to understand psychological processes that have yet not been spelled out in full (Creswell, 2008). In this case, exploring the depth and meaning of the researched phenomena was achieved by focusing on personal stories, accounts, and meanings, as presented by the individuals themselves who were the main source of information (Doherty & Chen, 2016). Specifically,

a phenomenological approach was adopted as it aims to discover and understand “the lived experience” from the individual’s perspective, without looking for a single “true” reality or objective measurable fact (Giorgi, 1997). This involves extensive description of the specific experience in all its richness and layers, while seeking the distinct meaning individuals ascribe to their experience (Denzin & Lincoln, 2005). Edmund Husserl, credited as the founder of modern phenomenology, exhorted researchers to capture the richness and ambiguity of experience by reflecting on its visceral texture and the sensuous perceiving of life as “given” to the experiencer, pregnant with layers of implicit meanings. This is particularly important for experiences in nature, where sensuality and physical experiences are central. Phenomenology as a research methodology includes this deep and detailed personal account of experience, while also striving to develop a composite description of the common “essence” of the lived experience that is beyond personal meaning (Creswell, 2008). Gaining both the individual and common perspective has been clearly described by van Manen (1990): “lived experience is the starting point and the end point is to transform the lived experience into a textual expression of its essence” (p. 36).

### *Participants and Research Design*

The participants comprised 15 adults (aged 28 to 70 years), 5 men and 10 women, who replied to a request sent through the Internet inviting people who experienced a transformative peak experience in nature to participate in the study. The participants came from different lifestyles (e.g., farms, cities, and communal settlements) and countries (Argentina, Israel, and America) and combined a variety of situations in which the peak experience occurred (challenging physical situations as well as calm meditative states). Distance from the experience varied considerably and included experiences that occurred 2 to 30 years prior to the interview. Versatility in the chosen sample contributed to the variability of the researched phenomena.

Following the receipt of institutional review board approval and participants’ informed consent, in-depth, semistructured interviews were conducted individually with each participant, allowing for flexibility and openness (Weiss, 1994). Conducting a face-to-face, personal interview also enabled a deep rapport with the experiencer while allowing the researcher to gain additional information, including the way in which the information was presented (e.g., facial and emotional expressions). The terms of the interview were clarified to each participant, who received a written consent form prior to the interviews, which were conducted by the first author. It was not difficult to find participants; in fact, many people replied and were eager to share their



experience. Interviewing and data analysis went hand in hand and the number of participants was determined by the saturation principle, namely, when no new themes or insights were gained. The interviews lasted between 1.5 and 2.5 hours and were held in neutral settings; the accounts were audiotaped and then transcribed verbatim into a written document. Participants were presented with one broad general question asking them to describe the peak experience in detail, focusing on the way in which they perceived and interpreted the event (Holstein & Gubrium, 1994; Patton, 2002; Schwandt, 1994). Additional open-ended questions were asked when more information was needed.

### *Data Analysis*

In congruence with the phenomenological methodological approach, a thorough reading of the entire data multiple times was undertaken until a sense of deeply knowing the participants' lived experiences was obtained. Gradually, significant statements or quotes (codes) which express a particular point or meaning emerged, providing an understanding of how the participants experienced the phenomenon (Moustakas, 1994; Polkinghorne, 2005; Smith, 2004). These significant statements or quotes were highlighted and then developed into clusters of meaning pertaining to specific themes. The themes were used to describe what the participants experienced (textural description), as well as the conditions, situations, contexts, or settings that influenced how participants experienced the phenomenon (structural description). These initial themes were then organized into meaningful categories or general core themes that had similar meanings and interpretations (Smith, 2004). The general themes were then examined to find connections and interrelations between them (Strauss & Corbin, 1998).

The process of data analysis requires deep reflection and critical concentration, through which the phenomenon is viewed with curiosity and disciplined naiveté (Giorgi, 1985). The phenomenological researcher attempts to be open and nonjudgmental, using "bracketing" to become aware of one's implicit assumptions and predispositions and setting them aside to avoid having them influence the research (Morrow & Smith, 2000). Additional strategies implemented to ensure the trustworthiness of the results included grounding of interpretations in direct quotes from the data, exhorting sensitivity, practicing reflexivity, consulting with peers, and checking with participants to learn how well the interpretations reflected the interviewee's meanings (Denzin & Lincoln, 2005; Morrow & Smith, 2000). These strategies served as a tool for increasing the trustworthiness of the data and the general integrity of the research process.

## Results

The phenomenological analysis of the interviews revealed the “essence” of the peak experience in nature as involving a meaningful insight described as the discovery of unknown or discarded aspects of self. Despite the accepted definition of the peak experience as a momentary and surprising experience, in this study, the peak experience was associated with a lifelong challenging personal issue reflected metaphorically through concrete and mostly unavoidable situations in nature. The often avoided conflictual issue was projected onto nature, offering the opportunity for new conduct and resolution through concrete and experiential embodiment of this personal issue in light of a newly discovered insight.

Four major themes related to the process of rapid transformation following one peak experience in nature were identified: (a) nature as a concrete and experiential setting reflecting and embodying a lifelong significant and challenging personal issue; (b) dissonance in facing the avoided and challenging issue; (c) meaningful insight, felt as a peak experience that shed new light on ways of dealing with the issue; and (d) choosing to own and embed these aspects into one’s identity and life. These themes formed a typical general narrative of the transformative process, manifested in various ways. Detailed extracts from the interviews, translated from Hebrew, are presented to exemplify these themes. The participants’ names have been changed to protect their identity.

### *Theme 1: Nature as a Concrete and Experiential Setting Reflecting and Embodying a Lifelong Significant and Challenging Personal Issue*

All the participants described an experience in nature that embodied and reflected in a concrete and unavoidable way an issue that they had been struggling with throughout their lives. Still, for all of them, this issue was not expected or sought after and was mirrored by nature so clearly and with an ultimacy that could not be escaped.

Tamar, a 48-year-old mother of two, described herself as a very independent woman who constantly sought freedom of choice, which she attributed to her difficulty with authority and inability to hold a job as an employee as well as to having difficulty committing to marriage. The next quote gives an example of the way in which nature reflected Tamar’s personal limiting issue regarding independence within a concrete situation.

Tamar was hiking in the desert with a group when the trail took a steep descent. Tamar recalls herself waiting for everyone to pass and only then did she become aware of her fear, she felt scared and stuck, as well as mute and

helpless. In this concrete situation, Tamar's independent behavior pattern and inability to ask for help was reflected and embodied through the natural environment:

I'm standing there seeing from a short distance the cave we were just in where I felt so secure and suddenly I'm stuck! I don't know what to do . . . I remember standing there stuck and saying to myself—you don't know how to ask for help, what's your problem? Why aren't you asking for help? Why do you always think you need to overcome everything on your own . . . that's it and it's a major issue in my life . . .

Lital, a 49-year-old mother of three and factory worker, was a second-generation holocaust survivor who described her life prior to the experience as living in constant fear and anxiety. While on a boat in the Arctic, Lital was confronted with a specific and concrete situation that revealed her lifelong fear and anxiety, especially as related to helplessness and fear of death, which were so entrenched in the holocaust legacy of her family:

My whole life I carry the burden of being a second-generation Holocaust survivor, the whole identity is so heavy that I don't really know who I am . . . a lot of fear, worry and lack of trust that things will work out or that I will be okay. I'm always expecting something bad to happen. I don't like my job or my lifestyle but I'm so scared to change anything, there is just always that fear of death and then I'm on this boat in the Arctic and all of a sudden temperatures dropped to -10, it's a cold you cannot imagine . . . I'm freezing, literally it's the utmost feeling of helplessness . . . a real fear of death . . . I have no other word to describe the feeling and I don't know if I'll die from the cold . . .

In these examples, nature mirrored and embodied limiting aspects of lifetime personal issues which participants had formerly avoided confronting in their daily lifestyle. It was in these concrete situations that they were confronted (sometimes forcefully) with usual ways of being or limiting self-perceptions that were to no avail. Discomfort, frustration, and dissonance were evoked when the usual ways of being were fruitless and constraining.

## *Theme 2: Dissonance When Facing the Avoided and Challenging Issue*

Most of the participants (13 out of 15) felt dissonance when facing the avoided issue and their limiting self-perceptions in the situations they encountered in nature. In these situations, former conduct or mind-set was to no avail evoking dissonance and inner conflict.

Hadar, aged 36 years, described herself as a people pleaser, always putting others' needs before her own and not really connected to her own needs. On a hiking trip in the desert, she was faced with this issue in an embodied way that was clear and unavoidable:

I've always been on the move, doing . . . my decisions were always based on what people were expecting from me, always looking for a way to please. . . . We were a group sitting on a ledge in the desert. I vividly remember feeling hot and not wanting to climb even though I told the group I was going to climb to the top. I felt so tired and the rocks looked so big and I had this inner conflict because I really didn't want to climb, but I told everybody I would. I felt so distraught, didn't know what to do . . .

Eliya, a 70-year-old mother of three and grandmother, described herself as a very successful psychotherapist but always passive:

I was always passive, going where I was told to go and doing what was expected of me. In this situation I also didn't ask where we were going, who, what . . . like a dummy that loves to be led . . . like a turkey on a skewer . . . who am I to ask or to answer . . .

In accordance with Eliya's typical behavior, she signed up for a trip to Jordan without asking for details or information and was not aware of the physical challenges on the trip. On the second day of the trip, she found herself on the ledge of a deep canyon that required a sheer jump into water to descend. In this concrete and specific state, her usual behavior pattern of being led and being passive was mirrored and embodied in a situation in nature:

and then the moment came . . . and for the first time in my life there was no return . . . it was concrete, I saw the canyon we walked through and I knew there was no going back, it was concrete . . . and I had to make a decision to jump or to be pushed . . .

These narratives exemplify the dissonance felt following a challenging situation in nature that could not be overcome by the usual ways of conduct. For the participants of the present study, this dissonance in nature included an embodied experience, surfacing in a powerful and unique way.

### ***Theme 3: Peak Experience, a Moment of Meaningful Insight***

It was in these concrete situations, which required confrontation, that a moment of insight revealed new *ways of dealing with the issue*. This insight

was described as the discovery of new, empowering parts of the self, and offered a solution to the challenging issue.

The extreme conditions in the Arctic in a boat, placed Lital in a situation in which her regular behavior and perceptual patterns were to no avail and she experienced a terrorizing fear of death until the moment of insight in which she discovered new abilities and potential:

I was freezing, and in that low situation I started to meditate and say to myself Lital, life is good, you can do it, it will be okay, and I go over and over these words . . . at a certain point I fell asleep and realized that I had calmed myself down! That was a moment of very specific understanding that I overcame fear and now I can overcome any fear. That insight and situation was so vivid it brought me to know that I can rely on myself . . . I can now say everything will be okay and I know it will all work out.

Hadar, who used to please others, was faced by a situation in the desert in which her need to please others, which in that case was reflected in the expectation that she would climb the hill, was challenged, and new awareness of self and needs emerged as an insight:

All of a sudden I heard myself say enough!! This was so new to me because I always did what was expected of me and this was a moment where I said enough! I don't have to go anywhere . . . and then I turned my head and saw the view, it was so amazing and I knew I did not have to move, all was perfect . . . it was that moment of understanding in which I knew that I could change my thinking and understanding of myself and my surroundings . . . that was a moment of very very meaningful personal insight.

These insights are perceived by the experience as ultimate truths having to do with an authentic knowing of self and accepting it as such.

#### *Theme 4: Choosing to Own and Embed These Aspects Into One's Identity and Life*

Insight itself, though powerful and compelling, was not enough to make a transformation. In the 12 cases in which the peak experience in nature resulted in transformation, a conscious choice to embrace the insight was made.

Lital, who overcame her deepest fears in confronting the freezing Arctic weather, decided to implement her new-found strengths in her life:

The meaning of that experience is that I have free will, that's mine, I'm a free person. I consciously chose to think challenge instead of fear and I put that

formula into everything I knew and slowly the challenge, the unknown became okay, for the first time in my life I really understood the meaning of freedom . . . I asked myself what do you want, without feeling guilty or ashamed or scared to be in touch with my needs and desires. I want to be a writer, to create, not to feel scared and guilty . . . I left my job in the factory, lost 20 pounds and am now working on a play.

As illustrated in the example of Lital, that moment of insight, evoked by experience in nature, led to a profound change in her perception of self and to an overall transformation in her life. These moments of insight are triggered by nature in many ways and do not always involve an external challenge as opposed to an internal one, as in the case of Hadar, who chose to attend to her need and not to climb the mountain, although she had promised to:

That moment was one of the most liberating moments in my life, I could choose to let go of all my stories, I could be naked, no family, no degree. . . . In that moment I knew that I could change my thinking and understanding of myself and my surroundings. From that moment on, I was concerned and connected to my needs more than to others. There is this inner sense of wholeness . . . I can count on myself . . . I let go of what people are expecting and was filled with such happiness, unbelievable . . . this wheel started to turn, . . . I guess the divorce was part of that . . . I left my job . . . I am in control of my life.

Hadar chose to implement this new insight in her daily life, which brought about major changes in her personal and professional life.

These accounts show the way in which the situation in nature confronted the participant with a lifelong and limiting issue reflected by nature in a concrete and actual situation. The experience involved a personal process in which old perspectives were challenged and new insight into self was revealed. Choosing to implement these insights provided the opportunity for personal transformation. Without such choice, no major transformation appears to occur. This was the case for Erik (aged 68 years), who recalled a profound moment in nature when gazing at the void between the stars on a dark night in the desert. Lost in time and space, he experienced what he called "a unifying force" and gained an understanding of how monotheism came to be. As an atheist, experiencing the irrational space and power of nature on that starry night expanded his awareness regarding belief in a higher force. Although significant, Erik did not describe the experience in relation to personal transformation or any lasting change. It seems that transformation does not occur unless some form of dissonance is experienced and one consciously chooses to implement the newly discovered insight in life.

## Discussion

The present research taking as its central focus the inner world of the participants, enabled us to gain a deep understanding of the unique process of transformation while assessing the contribution of nature and the peak experience to its occurrence. Despite the varied range of both participants and experiences, the essence of the peak experience was revealed to be one in which the participants discovered and confronted unconscious or avoided aspects of their personality. Phenomenological analysis of the transformative process revealed a distinct narrative involving three main constructs or themes. The first is *nature* as an element through which profound and meaningful life issues were projected and mirrored saliently and with a sense of clarity. This projection, usually under extreme conditions, evoked the second component, the *peak experience*, described as a moment of insight, a revelation or the emergence of significant new knowledge relating to one's life. This meaningful insight shed new light on ways of dealing with the issue through newly revealed aspects of self. The third component of the narrative, *transformation*, involved two aspects, dissonance and free choice. The challenging and unusual situation in nature revealed the limiting personal issue in a manner in which habitual behavior was to no avail. This situation required a new perception or line of action, thereby arousing dissonance while offering the opportunity to choose a new perspective. Long-lasting personal transformation emanated from the individual's decision to own and apply these newly discovered aspects to life, leading to an expansive and more whole and authentic identity.

### Nature

The findings of this study expand on previous research that has emphasized nature as a restorative environment adaptive to the human's biological, psychological, and evolutionary needs, thereby linking the unique aspects of nature to beneficial outcomes (Adhémar, 2008; Burns, 2005; Hartig et al., 2014; Kaplan, 2001; Pretty et al., 2007). The innovative findings of the current study reveal the actual *process* elicited by nature as embodying, mirroring, confronting, and even pushing one to discover as yet unknown aspects of self, significant to growth through its many concrete and experiential manifestations. These opportunities provided by nature, elicit meaningful personal issues in concrete situations that call for complete physical and emotional involvement, providing opportunity for new awareness of self and, ultimately, profound change. From this perspective, nature is not only a physical setting or backdrop for profound experience but is experienced as an "active agent" in the process of personal growth (Berger & McLeod, 2006).

## *The Peak Experience*

Despite the accepted definition of the peak experience as a momentary, short, and surprising experience seemingly distinct from one's life, the phenomenological analysis enabled us to uncover the broader scale of the peak experience as part of a life process. For the participants in our study, the experience in nature was perceived as a moment of profound insight deeply related to a lifelong significant issue. Previous studies have shown that a peak experience involves the discovery of a meaningful insight (C'de Baca & Wilbourne, 2004; Grady, 2010). The results of this study shed light on the nature of the profound meaning and revealed knowledge, in which unconscious or contradictory aspects of the self (regarding inner strength and personal potential) were discovered. The actual moment of insight was cognitive, perceptual, and emotional, and although not lengthy, substantial knowledge became conscious that involved embracing and repossessing those aspects of the self through which new self and world perceptions were created. In nature, the concrete and personal experience seemed to validate those aspects hence perceived as authentic inner truth, enabling the participant to internalize them as integral and empowering aspects of self. From this perspective, the experience is a step in the process of personal growth and when perceived and treated as such, may contribute significant personal knowledge to the process.

Although peak experience is commonly perceived as an ultimately positive experience (Goud, 1995; Greeley, 1974; Laski, 1961; Maslow, 1975), in this study, participants described hardship and dissonance as integral to their peak experience, which involved both positive and negative emotionally laden experiences. This duality accords with current conceptions within positive psychology maintaining that the nature of flourishing involves a complex and dynamic interplay of both the positive and the negative, whereby actualizing the full human potential includes appreciating and embracing the complex and ambivalent nature of life (Held, 2004; Ivtzan, Lomas, Hefferon, & Worth, 2015; King, 2001; Ryff & Singer, 2003; Wong, 2011).

## *Transformation*

Previous literature has focused mostly on the transformative outcome of profound experiences (e.g., Metzner, 1994; Vieten et al., 2009). This study focuses on the process of transformation as perceived by the individual. This unique process was revealed as involving significant insight but also as including two new constructs—dissonance and free choice. For 3 of the 15 participants, the peak experience in nature was not described in transformative terms. In these cases, dissonance or/and free choice were not relayed by the participants, and



this absence that coincided with the lack of an experience of transformative change led us to underscore the significance of these two constructs (i.e., dissonance and free choice) to the transformative outcome.

*Dissonance.* Theoretical models of personal transformation present dissonance as a necessary stage; involving the dismantling of old perceptions before new construction may occur (Duff, 1989; Ferguson, 1980; Mezirow, 1992). In the current research, the newly uncovered aspects revealed through the peak experience often contradicted the individual's self and world perception up to that moment, leading to dissonance. In this state, one strives to find a balance by choosing either to ignore the new information, in which case no transformation will occur, or to expand or change common perceptual structures of the world as well as of self, leading to transformation. These findings are congruent with Mezirow's (2003) theory of transformational learning. According to this conceptual perspective, the transformative process involves the dismantling of an old perceptual structure and the creation of a new one in its place which leads to a completely new mental structure which changes the person's outlook and character (Laski, 1990).

*Free Choice.* Specifically, in this study, profound positive outcome required the individual to make a conscious choice to implement the newly revealed self-knowledge. This aspect of choice is new to the field dealing with transformation and specifically with peak experience, thereby highlighting the person as an active agent in the process. Free choice as a basic construct in the transformative process may hold potential worthy of further consideration for those seeking to harness these experiences for personal growth and change.

The clinical literature on quick and transformative personal change often involves traumatic events (Calhoun & Tedeschi, 2014). In contrast, the present study provides an illustration of a moderately quick transformative change following a single positive peak experience. Such experience, though it seemingly occurs spontaneously, is reflective of a lifelong process and significant struggle to be who one really is and to actualize one's own potential, a process coined by Jung (1933) as "individuation" (Whitmont, 1969). From this perspective, the peak experience is an asset embedded with personal knowledge through which one's potential and strength can morph into consciousness. In this study, nature emerged as the vehicle that revealed and enabled an as yet unknown, unconscious, and even contradictory aspect of self to emerge through concrete embodied experience. The concrete and tangible manner in which personal issues and aspects were revealed and confronted enabled the participants to internalize the revelations, which could

then be practically implemented in life, ultimately resulting in transformation. This explanatory and psychological perspective is novel and may contribute to the study of personal knowledge embedded in these experiences implemented as such in the process of personal growth and self-actualization, specifically as occurring in nature.

## **Caveats and Conclusions**

Research findings in qualitative methodology are the outcome of a cocreation between participants, interviewers, and the researcher, thus providing a rather subjective prism. Further limitations include the distinct research sample, which restricts the generalization of conclusions. Furthermore, the phenomenological approach is but one way of analyzing and conceptualizing these phenomena. Other methodologies would have provided additional and important perspectives. Future research may examine ways in which personal knowledge and insights revealed through profound experience could be consciously and intentionally facilitated in growth processes. The present research has shown that these single, often brief experiences are not simply “peak” but also a gateway to significant self-knowledge and personal growth (Naor, 2014; Yair, 2008).

## **Declaration of Conflicting Interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## **Funding**

The author(s) received no financial support for the research, authorship, and/or publication of this article.

## **References**

- Adhémar, A. (2008). *Nature as clinical psychological intervention: Evidence, applications and implications* (Unpublished master's thesis). University of Århus, Århus, Denmark.
- Aspinall, P., Mavros, P., Coyne, R., & Roe, J. (2013). The urban brain: Analysing outdoor physical activity with mobile EEG. *British Journal of Sports Medicine*, *bjsports-2012*.
- Baban, A., & Craciun, C. (2007). Changing health-risk behaviors: A review of theory and evidence-based interventions in health psychology. *Journal of Cognitive and Behavioral Psychotherapies*, *7*, 45-66.
- Basu, A., Kaplan, R., & Kaplan, S. (2014). Creating supportive environments to foster reasonableness and achieve sustainable well-being. In T. J. Hämmäläinen & J.

- Michaelson (Eds.), *Well-being and beyond: Broadening the public and policy discourse* (pp. 182-218). Cheltenham, England: Edward Elgar.
- Beck, L. A. (1987). *The phenomenology of optimal experiences attained by Whitewater River recreationists in Canyonlands National Park* (Doctoral dissertation). University of Minnesota, Saint Paul.
- Berger, R., & McLeod, J. (2006). Incorporating nature into therapy: A framework for practice. *Journal of Systemic Therapies, 25*, 80-94.
- Bien, T. H. (2004). Quantum change and psychotherapy. *Journal of Clinical Psychology, 60*, 493-501.
- Burns, G. W. (2005). Naturally happy, naturally healthy: The role of the natural environment in well-being. In F. A. Huppert, N. Baylis & B. Keverne (Eds.), *The science of well-being* (pp. 404-431). New York, NY: Oxford University Press.
- Bratman, G. N., Hamilton, J. P., Hahn, K. S., Daily, G. C., & Gross, J. J. (2015). Nature experience reduces rumination and subgenual prefrontal cortex activation. *Proceedings of the National Academy of Sciences of the United States of America, 112*(28), 8567-8572.
- Brymer, E., Cuddihy, T. F., & Sharma-Brymer, V. (2010). The role of nature-based experiences in the development and maintenance of wellness. *Asia-Pacific Journal of Health, Sport and Physical Education, 1*(2), 21-27.
- Brymer, E., Downey, G., & Gray, T. (2009). Extreme sports as a precursor to environmental sustainability. *Journal of Sport & Tourism, 14*, 193-204.
- Calhoun, L. G., & Tedeschi, R. G. (2014). *Handbook of posttraumatic growth: Research and practice*. New York, NY: Routledge.
- Cardeña, E., Lynn, S. J., & Krippner, S. (Eds.). (2000). *Varieties of anomalous experience: Examining the scientific evidence*. Washington, DC: American Psychological Association.
- C'de Baca, J., & Wilbourne, P. (2004). Quantum change: Ten years later. *Journal of Clinical Psychology, 60*, 531-541.
- Coburn, M. J. (2006). *Walking home: Women's transformative experiences in the wilderness of the Appalachian Trail* (Unpublished doctoral dissertation). Institute of Transpersonal Psychology, Palo Alto, CA.
- Cohen, A. B., Gruber, J., & Keltner, D. (2010). Comparing spiritual transformations and experiences of profound beauty. *Psychology of Religion and Spirituality, 2*, 127-135.
- Creswell, J. W. (2008). *Research design: Qualitative, quantitative and mixed methods approaches*. Thousand Oaks, CA: Sage.
- DeMares, R., & Krycka, K. (1998). Wild-animal-triggered peak experiences: Transpersonal aspects. *Journal of Transpersonal Psychology, 30*, 161-177.
- Denzin, N., & Lincoln, Y. (2005). *The Sage handbook of qualitative research*. Thousand Oaks, CA: Sage.
- Doherty, T., & Chen, A. (2016). Improving human functioning. In R. Gifford (Ed.), *Research methods for environmental psychology* (pp. 323-343). Hoboken, NJ: John Wiley.

- Duff, V. (1989). Perspective transformation: The challenge for the RN in the baccalaureate program. *Journal of Nursing Education, 28*, 38-39.
- Ellison, M., & Hatcher, T. (2007). *Wilderness solitude and transformational change: Implications for the workplace*. Retrieved from <http://www.ufhrd.co.uk/wordpress/wp-content/uploads/2008/06/elli-54-fp.pdf>
- Ferguson, M. (1980). *The Aquarian conspiracy: Personal and social transformation in our times*. Los Angeles, CA: J. P. Tarcher.
- Fosha, D. (2006). Quantum transformation in trauma and treatment: Traversing the crisis of healing change. *Journal of Clinical Psychology, 62*, 569-583.
- Fredrickson, L., & Anderson, D. (1999). A qualitative exploration of the wilderness experience as a source of spiritual inspiration. *Journal of Environmental Psychology, 19*, 21-39.
- Giorgi, A. (1985). The phenomenological psychology of learning and the verbal learning tradition. In A. Giorgi (Ed.), *Phenomenology and psychological research* (pp. 23-85). Pittsburgh, PA: Duquesne University Press.
- Giorgi, A. (1997). The theory, practice, and evaluation of the phenomenological method as a qualitative research procedure. *Journal of Phenomenological Psychology, 28*, 235-260.
- Goud, N. H. (1995). Vital moments. *Journal of Humanistic Education and Development, 34*, 24-34.
- Grady, B. (2009). *Nature as a transformational space and facilitating environment for psychological growth: A psychodynamic perspective* (Doctoral dissertation). Retrieved from <http://gradworks.umi.com/33/82/3382667.html>
- Greeley, A. (1974). *Ecstasy: A way of knowing*. Englewood Cliffs, NJ: Prentice Hall.
- Hammit, W. E., & Brown, G. F., Jr. (1984). Functions of privacy in wilderness environments. *Leisure Sciences, 6*, 151-166.
- Hartig, T., Evans, G. W., Jamner, L. D., Davis, D. S., & Gärling, T. (2003). Tracking restoration in natural and urban field settings. *Journal of Environmental Psychology, 23*, 109-123.
- Hartig, T., Mitchell, R., de Vries, S., & Frumkin, H. (2014). Nature and health. *Annual Review of Public Health, 35*, 207-228.
- Hay, D., & Morisy, A. (1978). Reports of ecstatic, paranormal, or religious experience in Great Britain and the United States: A comparison of trends. *Journal for the Scientific Study of Religion, 17*, 255-268.
- Hayes, A. M., Laurenceau, J., Feldman, G., Strauss, J. L., & Cardaciotto, L. (2007). Change is not always linear: The study of nonlinear and discontinuous patterns of change in psychotherapy. *Clinical Psychology Review, 27*, 715-723.
- Held, B. S. (2004). The negative side of positive psychology. *Journal of Humanistic Psychology, 44*, 9-46.
- Higginson, S., & Mansell, W. (2008). What is the mechanism of psychological change? A qualitative analysis of six individuals who experienced personal change and recovery. *Psychology and Psychotherapy: Theory, Research and Practice, 81*, 309-328.

- Holstein, J. A., & Gubrium, J. F. (1994). Phenomenology, ethnomethodology, and interpretive practice. *Handbook of Qualitative Research*, 2, 262-272.
- Hood, R. W. (1977). Eliciting mystical states of consciousness with semistructured nature experiences. *Journal for the Scientific Study of Religion*, 16, 155-163.
- Ivtzan, I., Lomas, T., Hefferon, K., & Worth, P. (2015). *Second wave positive psychology: Embracing the dark side of life*. New York, NY: Routledge.
- Jung, C. G. (1933). *Modern man in search of his soul*. New York, NY: Psychology Press.
- Kaplan, R. (2001). The nature of the view from home psychological benefits. *Environment and Behavior*, 33, 507-542.
- Kaplan, R., & Kaplan, S. (1989). *The experience of nature: A psychological perspective*. Cambridge, England: Cambridge University Press.
- Kellert, R., & Wilson, E. O. (1995). *The biophilia hypothesis*. Washington, DC: Island Press.
- Kellert, S. (1998). *A national study of outdoor wilderness experience*. Washington, DC: Island Press.
- Keutzer, C. S. (1978). Whatever turns you on: Triggers to transcendent experience. *Journal of Humanistic Psychology*, 18, 77-80.
- King, L. A. (2001). The hard road to the good life: The happy, mature person. *Journal of Humanistic Psychology*, 41, 51-72.
- Laski, M. (1961). *Ecstasy: A study of some secular and religious experiences*. London, England: Cressett Press.
- Laski, M. (1990). *Ecstasy in secular and religious experiences*. Los Angeles, CA: J. P. Tarcher.
- Maslow, A. H. (1964). *Religions, values, and peak-experiences* (Vol. 35). Columbus: Ohio State University Press.
- Maslow, A. H. (1969). Various meanings of transcendence. *Journal of Transpersonal Psychology*, 1, 56-65.
- Maslow, A. H. (1975). *The farther reaches of human nature*. New York, NY: Viking Press.
- McCain, E. W., & Andrews, H. B. (1969). Some personality correlates of peak experiences: A study in self-actualization, *Journal of Clinical Psychology*, 25, 36-38.
- McDonald, B., & Schreyer, R. (1991). Spiritual benefits of leisure: Participation and leisure settings. In B. L. Driver, P. J. Brown & G. L. Peterson (Eds.), *Benefits of leisure* (pp. 179-194). State College, PA: Venture.
- McDonald, M. (2008). The nature of epiphanic experience. *Journal of Humanistic Psychology*, 48, 89-115.
- McDonald, M., Wearing, S., & Ponting, J. (2009). The nature of peak experience in wilderness. *The Humanistic Psychologist*, 37, 370-385.
- Metzner, R. (1994). *The well of remembrance: Rediscovering the earth wisdom of Northern Europe*. Boston, MA: Shambhala.
- Mezirow, J. (1992). Transformation theory: Critique and confusion. *Adult Education Quarterly*, 42, 250-252.

- Mezirow, J. (2003). Transformative learning as discourse. *Journal of Transformative Education, 1*, 58-63.
- Miller, W. R. (2004). The phenomenon of quantum change. *Journal of Clinical Psychology, 60*, 453-460.
- Miller, W. R., & C'de Baca, J. (1994). Quantum change: Toward a psychology of transformation. In T. F. Heatherton, J. L. Weinberger, T. F. Heatherton & J. L. Weinberger (Eds.), *Can personality change?* (pp. 253-280). Washington, DC: American Psychological Association.
- Miller, W. R., & C'de Baca, J. (2001). *Quantum change: When epiphanies and sudden insights transform ordinary lives*. New York, NY: Guildford Press.
- Morrow, S. L., & Smith, M. L. (2000). Qualitative research for counseling psychology. In S. D. Brown & R. W. Lent (Eds.), *Handbook of counseling psychology* (3rd ed., pp. 199-230). Hoboken, NJ: John Wiley.
- Moustakas, C. E. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage.
- Naor, L. (2014). *Transformational peak experience in nature* (Unpublished master's thesis). Haifa University, Haifa, Israel.
- Noble, K. D. (1987). Psychological health and the experience of transcendence. *The Counseling Psychologist, 15*, 601-614.
- Oliver, L. E., & Ostrofsky, R. (2007). The ecological paradigm of mind and its implications for psychotherapy. *Review of General Psychology, 11*(1), 1-11.
- Owens, C. M. (1972). The mystical experience: Facts and values. In J. White (Ed.), *The highest state of consciousness* (pp. 135-152). New York, NY: Anchor Books.
- Palmer, G., & Braud, W. (2002). Exceptional human experiences, disclosure and a more inclusive view of physical, psychological, and spiritual well-being. *Journal of Transpersonal Psychology, 34*(1), 29-61.
- Patton, M. Q. (2002). Qualitative interviewing. In *Encyclopedia of statistics in behavioral science* (pp. 344-347). Hoboken, NJ: John Wiley.
- Polkinghorne, D. E. (2005). Language and meaning: Data collection in qualitative research. *Journal of Counseling Psychology, 52*, 137-145.
- Pretty, J., Peacock, J., Hine, R., Sellens, M., South, N., & Griffin, M. (2007). Green exercise in the UK countryside: Effects on health and psychological well-being, and implications for policy and planning. *Journal of Environmental Planning and Management, 50*, 211-231.
- Ryan, R. M., Weinstein, N., Bernstein, J., Brown, K. W., Mistretta, L., & Gagne, M. (2010). Vitalizing effects of being outdoors and in nature. *Journal of Environmental Psychology, 30*, 159-168.
- Ryff, C., & Singer, B. (2003). Ironies of the human condition: Well-being and health on the way to mortality. In L. G. Aspinwall & U. M. Staudinger (Eds.), *A psychology of human strengths* (pp. 271-287). Washington, DC: American Psychological Association.
- Schwandt, T. A. (1994). Constructivist, interpretivist approaches to human inquiry. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 118-137). Thousand Oaks, CA: Sage.

- Searles, H. F. (1960). *The nonhuman environment in normal development and in schizophrenia*. New York, NY: International Universities Press.
- Shostak-Kinker, T. (2012). *Rock climbing, flow theory, and yoga* (Master's thesis). Prescott College, Prescott, AZ.
- Skalski, J. E., & Hardy, S. A. (2013). Disintegration, new consciousness, and discontinuous transformation: A qualitative investigation of quantum change. *The Humanistic Psychologist, 41*, 159-177.
- Smith, J. A. (2004). Reflecting on the development of interpretative phenomenological analysis and its contribution to qualitative research in psychology. *Qualitative Research in Psychology, 1*, 39-54.
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage.
- Swatton, A. G., & Potter, T. G. (1998). The personal growth of outstanding canoeists resulting from extended solo canoe expeditions. *Pathways: The Ontario Journal of Outdoor Education, 9*(6), 13-16.
- Terhaar, T. L. (2009). Evolutionary advantages of intense spiritual experience in nature. *Journal for the Study of Religion, Nature & Culture, 3*, 303-339.
- Trace, N. (2003). *Complexity, Buddhism and adventure therapy*. Paper presented at the Third International Adventure Therapy Conference, April 20-24, Victoria, British Columbia, Canada.
- Ulrich, R. S. (1999). Effects of gardens on health outcomes: Theory and research. In C. C. Marcus & M. Barnes (Eds.), *Healing gardens: Therapeutic benefits and design recommendations* (pp. 27-86). New York, NY: John Wiley.
- van Manen, M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy*. New York: State University of New York Press.
- Vieten, C., Schlitz, M., & Amorok, T. (2009). A research-based model of consciousness transformation. *Shift: At the Frontiers of Consciousness, 23*, 32-34.
- Weiss, R. S. (1994). *Learning from strangers: The art and method of qualitative interviewing*. New York, NY: The Free Press.
- Whitmont, E. C. (1969). *The symbolic quest*. Princeton, NJ: Princeton University Press.
- Williams, K. H., & Harvey, D. (2001). Transcendent experience in forest environments. *Journal of Environmental Psychology, 21*, 249-260.
- Wilson, E. O. (1984). *Biophilia*. Cambridge, MA: Harvard University Press.
- Wilson, M. (2011). Encounters with nature as a path of self-realisation: A meaning-making framework. *Journal of Transpersonal Research, 3*(1), 11-29
- White, M. P., Alcock, I., Wheeler, B. W., & Depledge, M. H. (2013). Would you be happier living in a greener urban area? A fixed-effects analysis of panel data. *Psychological Science, 24*, 920-928.
- Wong, P. T. (2011). Positive psychology 2.0: Towards a balanced interactive model of the good life. *Canadian Psychology/Psychologie Canadienne, 52*, 69-81.
- Wood, R. (2010). *Psycho-spiritual transformation experienced by participants of modern wilderness rites of passage quests: An intuitive inquiry* (Unpublished doctoral dissertation). Institute of Transpersonal Psychology, Palo Alto, CA.

Wuthnow, R. (1978). Peak experiences: Some empirical tests. *Journal of Humanistic Psychology, 18*(3), 59-75.

Yair, G. (2008). Key educational experiences and self-discovery in higher education. *Teaching and Teacher Education, 24*(1), 92-103.



### Author Biographies

**Lia Naor** is a graduate student in the Department of Counseling and Human Development at the University of Haifa. Her professional and academic focus is on the process of personal growth and transformation, specifically as occurring in and through nature. She has integrated her passion and expertise in the field of nature therapy and personal growth by “Ways of knowing,” a model for therapeutic quests in nature that she developed. During the past several years, she has sought to learn more on the transformative power of nature through academic research and teaching. She has presented her work in academic conferences worldwide and has published book chapters on the topic.



**Ofra Mayseless** is a professor of developmental psychology at the Faculty of Education, University of Haifa, Israel and the former dean of that faculty. She also served as Head of the National Pedagogical Secretariat, Ministry of Education Israel. She has studied attachment and caregiving processes and the transition to adulthood in Israel. For the past 10 years, she has also investigated the search for life’s meaning and purpose and processes of spiritual development and has recently authored a new book on “The caring motivation” in Oxford University Press.