The Impact of a
Wilderness-Based
Training Program on
Leadership
Transformation

Boy van Droffelaar

Propositions

1. Immersing oneself in remote wilderness fosters understanding of one's inner wilderness.
(this thesis)
2. Wilderness-based peak experiences transform leaders' mindset.
(this thesis)
3. By eliciting attention, emotion, more than cognition, prompts lasting mental change.
4. Long-term sustainability orientation implies abolishing short-term financial reporting.
5. A culture of positive emotional energy stimulates researchers' creativity.
6. Aging is a matter of course; personal growth is a matter of choice.

Propositions belonging to the PhD thesis, entitled

The Impact of a Wilderness-based Training Program on Leadership Transformation

Boy van Droffelaar

Wageningen, 29 October 2020

**The Impact of a
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on
Leadership Transformation**

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**The Impact of a
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on
Leadership Transformation**

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ACRONYMS

AL	Authentic Leadership
FNL	Foundation of Natural Leadership
WLS	Wilderness Leadership School
WLTP	Wilderness Leadership Transformation Program

CHAPTER 1

A full-page photograph of a mountain landscape. In the background, several jagged mountain peaks are covered in snow under a clear blue sky. Below the peaks, a dense forest of trees with golden-brown autumn foliage fills the valley. The foreground shows a rocky, brownish-yellow mountain slope. Three hikers are visible in the lower-left corner, walking away from the viewer. The text 'General introduction' is overlaid on the right side of the image.

General introduction

1.1 INTRODUCTION

In spring 2018, CEO Ralph Hamers of ING Bank, based in the Netherlands, was the subject of a serious social and political debate when he received a 50 percent salary increase. Under heavy public and political pressure, the board of directors withdrew the raise. During a hearing in the Dutch parliament, Hamers admitted that ING's management had made a serious error of judgment. Besides, in spring 2018, the ING top management was already aware of a huge money laundering scandal within the bank. The Public Prosecution settled the case a few months later with a fine of 775 million Euro. As a lightning rod the CFO was sacrificed and Hamers remained seated. Media argued that the leadership of ING Bank had shown lack of self-reflection and self-regulation of proper moral behavior, and that they had shown insufficient attention for what was happening in society. In reaction, Hamers contended in a newspaper interview: "I, as a leader, must refrain from showing emotions and vulnerability". (NRC newspaper, 2018)

1.2 LEADERSHIP IN CONTEXT

As this story illustrates, the banking sector appears to have learned little from previous scandals such as those that came to light during the 2008 financial crisis. Distrust of leadership is still fueled today, despite the promising intentions after corporate scandals, corporate malfeasance and the 2008 financial crisis (Burke, 2006; Williams, Campbell, McCartney, & Gooding, 2013). Distrust is problematic also because the contexts in which leaders operate have become increasingly complex over time. Focus on traditional organizational

values (e.g., product and service quality, financial performance) is expanding to one with a broader orientation that also includes social responsibility and environmental stewardship (Crooke, Csikszentmihalyi, & Bikel, 2015; Van Wart, 2013). In addition, current leaders operate in a context of globalization, digital disruption, technology mediated environments, accelerating pace of change, uncertainty and changing demands of employees (Bennett & Lemoine, 2014; Deal, Altman & Rogelberg, 2010; Fry, 2015; Williams, 2014). These contemporary challenges demand more than just a change in leadership competences. Scholars and practitioners have argued that a more fundamental shift in mindset is required (Cooper, Scandura & Schriesheim, 2015; Day, 2000; Day & Dragoni, 2015; Keller & Schaninger, 2019). At the same time, leadership development is largely based on cognition-based learning to improve competences – skills and abilities (skillset) – rather than addressing the capacities of leaders – their inner resources (mindset) in the face of the complex leadership challenges (Day & Dragoni, 2015). Changing mindsets is not easy and requires different training than competency focused programs (Dweck, 2017; Kramer, 2016). How a change in the mindset of leaders, targeting their beliefs and worldview, can possibly be achieved is central to the present thesis. I aim to address this issue by analyzing the impact of a wilderness-based training program on leadership transformation.

1.3 LITERATURE REVIEW

1.3.1 Brief history of leadership theory

Leadership has been a topic of academic interest for more than a century. Many factors have influenced scientific interests in leadership, from world affairs and politics to the perspectives of the discipline in which the subject is studied (Antonakis & Day, 2018; Northouse, 2016; Rost, 1991). Given the complex nature of leadership, there is no generally accepted definition of leadership: “there are almost as many different definitions of leadership as there are people who have tried to define it” (Stogdill, 1974). Yet a commonality across definitions today is that leadership is seen as a process of social influencing whereby an individual

influence a group of individuals to achieve a common goal (Antonakis & Day, 2018; May, Chan, Hodges & Avolio, 2003; Northouse, 2016).

Leadership theories evolved from what some have labeled as *Great Man Theory* (1840 and onwards), which looked at leaders as heroes (Carlyle, 1907). Thereafter, in Stogdill's work (1948) emphasis shifted away from traits to behaviors, culminating in *Behavioral Theory* (1950-1970), which emphasized that leaders were a product of their environment, adapting their task and/or people-oriented behaviors to the situation (Blake & Mouton, 1964; Katz & Kahn, 1966). What followed were *Contingency Theories* (1967-1990), accounting for contextual variables, such as the character of the organization, and other environmental factors (Fiedler, 1971; House, 1971).

A logical prolongation of contingency theory was the *Contextual Movement*, which people are still interested in today. This perspective covers a wider range of topics such as the hierarchical level of leaders, the national culture, the gender of the leader and follower, the organizational characteristics and crises (Liden & Antonakis, 2009; Lord, Brown, Harvey, & Hall, 2001). Based on the work of Burns (1978) and Bass (1998) *Transformational Leadership Theory* (1985-2010) came to the fore, with a focus on leader-follower relationships. From 2005 onwards, a legion of examples of corporate malfeasance motivated practitioners and researchers to examine the influence of ethics and morality on the behavior of leaders and on organizational outcomes (George, 2003; George & Sims, 2007; Luthans & Avolio, 2003). This necessitated a new perspective on leadership and lead to models such as ethical and authentic leadership (Avolio & Gardner, 2005; Avolio & Luthans, 2006; Brown, Treviño & Harrison, 2005; Ilies, Morgeson, & Nahrgang, 2005). In this thesis, the concept of authentic leadership guides the research.

1.3.2 Authentic leadership

In the context of changing demands for leadership, the societal and academic focus has been redirected on leaders who are optimistic, inspiring, authentic, show integrity, take care of others and are able to reflect on themselves (Avolio & Luthans, 2006; Brown, Treviño, & Harrison, 2005; George, 2003; Lorenzi,

2004). The concept of authentic leadership has been introduced to represent this desired leadership style (Avolio & Gardner, 2005; Gardner, Avolio, Luthans, May & Walumbwa, 2005; George & Sims, 2007; Luthans & Avolio, 2003; Walumbwa, Avolio, Gardner, Wernsing & Peterson, 2007). Authentic leaders are guided by sound moral convictions and act in concordance with their deep-rooted beliefs and values, even under pressure. They are well aware of their self-image, strengths, and weaknesses, and strive to understand how their leadership influences peers and followers (Gardner et al., 2005; Walumbwa et al., 2007). Walumbwa et al. (2007, p.94) defined authentic leadership as:

“a pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development.”

Scholars distinguish four components of authentic leadership. First, self-awareness, which refers to understanding one's strengths and weaknesses. Through interactions with others, leaders with a strong sense of self-awareness acquire valuable personal insights, including knowledge about the impact they have on others in general, and in particular on those they lead. Second, internalized moral perspective, which is a self-regularity process guided by moral standards and values. Authentic leaders are not tempted by opportunities that require violations of their core principles and obligations. Third, balanced processing of information, which implies analyzing all relevant information before making a decision. Balanced processing helps authentic leaders to make the right decision for their group, organization or society, even if this is not personally beneficial. Authentic leaders are therefore open to feedback. Fourth, relational transparency, which denotes openness and honesty in presenting oneself to others. It allows followers to understand the reasoning behind a leader's decision, minimizing fear of the unknown and stimulating feelings of trust (Gardner, Coglisier, Davis & Dickens, 2011; Walumbwa et al., 2007).

Empirical research on authentic leadership has shown positive relationships between authentic leadership and many positive individual (e.g., engagement,

job satisfaction, work performance), group (e.g., teamwork), and organizational (e.g., organizational citizenship behavior (meaning behavior above and beyond role requirements), organizational commitment and employee satisfaction) outcomes (Gardner et al., 2011; Gardner & Carlson, 2015; Walumbwa et al., 2007). These findings lend support for the assertion that authentic leadership responds to today's leadership challenges (Gardner et al., 2005; George & Sims, 2007; Luthans & Avolio, 2003; Walumbwa et al., 2007). A shift in leaders' mindset, so they can become more authentic leaders, can be thought of as a prerequisite underpinning the depth of leaders' self-reflection and with that promoting the effectiveness of leaders' competences (Anderson & Adams, 2015). Supported by research on twins (Zhang, Ilies, & Arvey, 2009) and meta-analytic evidence (based on 140 independent effect sizes and from 13,656 unique participants) (Avolio, Reichard, Hannah, Walumbwa & Chan, 2009a), literature suggests that individuals can change their leadership style and improve their leadership qualities during their course of life.

Scholars have strived to provide scientific insight into the development of authentic leadership, that is, *how* the core components of authentic leadership may develop within leaders (Avolio & Gardner, 2005; Day, 2011; Day & Thornton, 2018). The present thesis makes a new contribution to the literature by investigating whether interventions in natural settings can help realize a shift in leaders' mindset, resulting in a more authentic leadership style. Before I review authentic leadership development literature, I will first elaborate on leadership development in general.

1.3.3 Leadership development research

Leadership development is reported as one of the least researched topics in leadership research and theory, with gaps in terms of both empirical and theoretical contributions (Avolio, Avey & Quisenberry, 2010; Day & Thornton, 2018). Collins and Holton's (2004) meta-analysis of eighty-three studies found a lack of empirical evidence for measurable outcomes associated with the effectiveness of leadership development interventions. More recently, a McKinsey poll among 500 executives worldwide showed that only 11 percent fully agreed

that their leadership development interventions achieved and sustained the desired outcomes (Feser, Nielsen & Rennie, 2017).

Generally speaking, the field of leadership development is primarily a collection of different ‘best practices’ (for example 360-degree feedback, coaching, practical experience, mentoring) instead of a coherent, continuous process based on fact and theory (Allio, 2005; Day, 2000; Day & Thornton, 2018). In addition, only a few studies into the effects of leadership intervention include a thorough measurement and evaluation of the outcomes of leadership development (Gurjian, Halbeisen, & Lane, 2014; Kaiser & Curphy, 2013). Besides, in a meta-analytic review of leadership impact studies, Avolio et al. (2009a) reiterated that only 9 percent of studies included in their meta-analysis exceeded seven days in duration. The median intervention length was 3 to 6 hours, while the modal intervention length was under 1 hour. Moreover, only 34 percent of studies in the sample used a longitudinal design to assess within-group effects, whereas 56 percent were between-group experiments and 10 percent were of mixed design. Scientists have consequently insisted on elaborated research designs with for instance multiple measurements across time and mixed methods, to provide more scientific insight into the development process of leaders (Ardichvili, Natt och Dag & Manderscheid, 2016; Day, 2011). Day, Harrison, and Halpin (2009) further pointed out that the design of individual leadership development programs needs to take into account the fact that leadership development is always part of a larger process of personal growth, recognizing the unique aspects of the individual. The notion of personal growth is in line with Kegan’s (1982) view of development as a progression through stages of moral growth and individuation (Kegan, 1982; Kegan & Lahey, 2009).

1.3.4 Authentic leadership development

Despite a growing body of literature on the nature of authentic leadership, little empirical attention has been paid to authentic leadership development (Day, 2000; Day & Halpin, 2012).

The scientific literature reporting empirical research on authentic leadership development interventions raises two concerns. The first concern is whether the

interventions chosen are appropriate (Cooper, Scandura, & Schriesheim, 2005). Often, interventions are limited on-the-job assignments, special projects and classroom exercises in traditional venues. These interventions might be insufficient to bring about a mind shift. Hence, the question remains what type of interventions, beyond traditional ones, may be conducive to leadership change in individuals. The second concern is that studies that have examined the ability of training programs to foster the development of authentic leadership (Baron & Parent, 2015; Evans, Hess, Abdelhamid, & Stepleman, 2016; Roche, 2010) lacked samples of senior leaders. Instead, in two empirical studies the samples consisted of students (Evans, et al., 2016; Roche, 2010) and the third study concerned middle level managers (Baron & Parent, 2015). In addition, these studies did not measure long-term effects of leadership style change. As a result, findings from the aforementioned three studies cannot be blindly generalized as referring to senior organizational leaders and are insensitive to monitoring long-term effects.

Various scholars suggest that “critical life events” – trigger events that shape people’s lives – are probably an important antecedent of authentic leadership (Cooper et al., 2005; Gardner et al., 2005; Lord & Hall, 2005; Luthans & Avolio, 2003). Trigger events can induce both dramatic and subtle changes in people’s perspective and circumstances, and facilitate personal growth and development (Gardner et al., 2005, p. 347). Thus, trigger events can affect mindsets (Bennis & Thomas, 2002; Isabella, 1992; Turner & Mavin, 2007). The interaction between trigger events, initiated by a leadership development program, and reflection on this and the insight gained, for example through coaching, could bring about changes in leadership style (Avolio & Gardner, 2005; Illies, Morgeson, & Nahrgang, 2005). Typically, the subjective experience of trigger events can enable leaders to reflect upon their self-concept, basic beliefs, emotions and worldview. In addition, trigger events can define anchor points from which their leadership approach and identity develops and grows (Turner & Mavin, 2007). In this context, Gardner et al. (2005) argue that life stories and critical life events could be antecedents for authentic leadership development. Critical life events may involve childhood experiences or other major life events such as a severe illness

or a new career (Gardner et al., 2005; Luthans & Avolio, 2003, Bennis & Thomas, 2002). However, these experiences are described as coincidental events that could happen to a leader and not as part of a well-organized training event. A few recent studies have suggested that leadership training programs could be effective if they take place over a longer period of time and include seminars, planned trigger events and individual coaching (Baron, 2016; Cooper et al., 2005; Kets de Vries & Korotov, 2007). Yet, these studies fail to indicate what is meant by planned trigger events and what these should look like.

To conclude, there is a gap in authentic leadership development literature in terms of empirical research into the impact of a long-term training program, including seminars, planned appropriate trigger events and coaching, designed for senior organizational leaders.

This thesis aims to address this gap in literature by examining a leadership training program, which is called the Wilderness Leadership Transformation Program (WLTP) of the Foundation for Natural Leadership (FNL). The program has a timespan of about 4 months but may extend over years. The core of the program consists of a 4-to-6-day wilderness trail with a group of five to seven participants, all senior organizational leaders, accompanied by one or two local guides and a certified FNL facilitator. The design of the trail provides the necessary conditions for full immersion in nature and by that induce trigger events that may foster mind shifts in leaders. In the following section I will review the theoretical and empirical literature on effects of nature experiences.

1.3.4 Nature as trigger event

The founders of major religions and renowned mystics, shamans, philosophers, romantics and natural history writers spent long (solitary) periods in remote nature reserves. The rites of passage and initiations ceremonies found in indigenous cultures are also often associated with extended periods in wilderness (Davis, 2004; Fry, 2003; Long & Averill, 2003). Maslow (1964) argued that wilderness settings can evoke peak experiences. Peak experiences are transforming experiences involving holistic cognition, transcendence of ordinary time and space, and profound experiences of an integrated self, accompanied by feelings

of bliss and wonder (Maslow, 1968, pp. 249-53). In a similar vein, Csikszentmihalyi (1990) contended that nature can fuel flow experiences, in which a person performing an activity is fully immersed in a feeling of energized focus, complete involvement, and enjoyment in the process of the activity. Both DeMares (2000) and Laski (1961) have specifically noted that wildlife interaction and observation can act as causal factors for peak experiences. Empirical research supports these claims (Ashley, 2007; Boniface, 2000; Hinds, 2011; McDonald, Wearing & Ponting, 2009).

In addition, research indicates that spending time in nature can have profound psychological effects, including stress reduction (Ulrich, Simons, Losito, Fioritoni, Miles, & Zelson, 1991) and attention restoration (Kaplan, 1995; Kaplan & Kaplan, 1989). Ulrich et al. (1991) sought to investigate the extent to which exposure to different environments helped or hindered recovery from stress and determined whether exposure to natural environments promoted greater recovery than exposure to urban environments. Kaplan and Kaplan (1989) wrote extensively about the value of nature in restoring mental attention. The need for attention restoration is in response to mental fatigue. One way of restoring the capacity of mental focus is by allowing fascination to reign for a while. Fascination is involuntary attention on something that is exciting, mysterious, or inherently interesting. The Kaplans (1989) contended that immersion in a natural setting is particularly effective as nature can be a restorative environment that promotes fascination, which allows the brain's turmoil to rest. The preference for natural environments is "an expression of underlying human needs" (Kaplan & Kaplan, 1989, p. 10). Furthermore, research suggests that nature experiences may lead to positive psychological effects, such as emotional well-being (Hinds & Sparks; 2008; Hinds, 2011; Zelinsky & Nisbet, 2012), personal development and increased self-awareness (D'Amato & Krasny, 2011; Friese, Pittman & Hendee, 1995; Heintzman, 2009; Kaplan & Kaplan, 2009; Paxton & Mcavoy, 2000), self-sufficiency, independence and self-regulation (Bratman, Hamilton & Daily, 2012; Kaplan, 1995; Mayer, Frantz, Bruehlman-Senecal, & Dolliver, 2008), creativity and inspiration, spirituality, greater authenticity and connectedness (Fredrickson & Anderson, 1999; Howell, Dopko, Passmore, & Buro, 2011; Kaye, 2006),

increased intentions to pro-social behavior (Weinstein, Przybylski, & Ryan, 2009; Morse, 2014), and potential for contributing to sustainability (Koskela & Goldman Schuyler, 2016).

Typically, peak experiences may act as trigger events constituting a 'transitional space' that facilitates moments of self-focused attention, self-reflection, narrative processes with peers and opportunities to sharing life stories, fostering intrapersonal change (Frederickson & Anderson, 1999; Howell, Dopko, Passmore, & Buro, 2011; Kaye, 2006). Thus, in response to the described gaps in literature and lack of empirical evidence, this PhD project investigates whether the intrapersonal transformational potential of a wilderness-based training program can be conducive to leadership style change.

1.4 RESEARCH QUESTIONS AND STRUCTURE OF THESIS

In order to investigate the impact of a wilderness-based training program on leadership transformation, the following research questions guided the present study:

Research question 1

What did the leaders experience during the wilderness-based training program?

Research question 2

Which intentions are triggered by leaders' wilderness-based experiences?

Research question 3

To what extent has authentic leadership increased after participation in a wilderness-based training program?

Research question 4

Which memories of the wilderness-based training do the leaders relive in their work situations?

Research question 5

What changes in their leadership style do leaders perceive as influenced by their training experience memories?

Table 1. Structure of thesis

Research question	Empirical study	Method
<p>Q1: <i>What did the leaders experience during the wilderness-based training program?</i></p> <p>Q2: <i>Which intentions are triggered by leaders' wilderness-based experiences?</i></p>	The role of wilderness experiences in leaders' development towards authentic leadership (Chapter 2)	Qualitative content analysis of participants' trail reports, written shortly after their trail (N = 97)
Q3: <i>To what extent has authentic leadership increased after participation in a wilderness-based training program?</i>	Nature-based training fosters authentic leadership (Chapter 3)	Quantitative study testing intrapersonal change toward authentic leadership. Measurement was before, immediately after and one year after the training program (N = 66)
<p>Q4: <i>Which memories of the nature-based training do the leaders relive in their work situations?</i></p> <p>Q5: <i>What changes in their leadership style do leaders perceive as influenced by their training experience memories?</i></p>	How episodic memories of a wilderness-based training program affect leadership style (Chapter 4)	Qualitative content analysis of interviews with leaders participating in the program in the past (on average six years before) (N = 36)

Chapters 2, 3 and 4 present three empirical studies that together are designed to answer the research questions (Table 1).

More details on the rationale, design and methods of the empirical studies are provided in the relevant chapters. The final chapter will offer concluding remarks and position the findings within relevant academic debates.

There is some overlap and repetition in this dissertation, as the chapters reporting the empirical research are written as standalone articles. For that reason, for instance, parts of the theoretical perspective are repeated in several chapters. Having explained the subject of this thesis, I will expand on the context and my role as a person and researcher in the next sections, to conclude this introduction.

1.5 STUDY CONTEXT

1.5.1 Foundation of Natural Leadership

In 2002 the International Dialogue Conference was held in Putten, the Netherlands, organized by the Encounter of World Views Foundation. During that conference many CEOs of corporate organizations, leaders of NGOs, and political leaders from across the world discussed how their talented managers could be transformed into genuine leaders ready to face the challenges of the new century. At one point, Joseph Jaworski, well-known for his book *'Synchronicity, the inner path of leadership'* (1996), stepped up to the whiteboard and wrote in big capital letters: NATURE. He argued that being in nature can have a positive effect on individuals, allowing people to deepen their understanding of reality and become more capable of participating in its unfolding, resulting in deeper commitment and stronger contribution to society. The dialogue that followed made all those present acutely aware of what people can learn from nature and their responsibility to work with nature in a sustainable way. Based on this insight, the next step was to create a program in which nature could serve as a portal for leadership transformation. Consequently, the Foundation of Natural Leadership (FNL) was born.

The FNL's aim is to support the development of natural leadership and to raise awareness of the connection between nature and humanity. The purpose of the training program is to develop participants' "natural leadership" capacities. However, natural leadership is not a scientific concept, conceptualized and operationalized in scholarly literature. Notwithstanding, the FNL's description of natural leadership mirrors the concept of authentic leadership, which will thus be used in this thesis.

The FNL has been a fast-growing community from the start. Today, it has over 1500 members. FNL supports people, businesses, institutions and public organizations by offering unique leadership transformation programs and initiatives. The FNL hopes to enroll at least 2500 leaders onto their trails in the near future.

Fueled by the widely recognized need for a new wave of leaders whose characteristics include high moral standards, honesty, and genuine care, the FNL invites leaders to develop their authentic leadership capacities by bonding with nature in some of the world's most remote wilderness places. To build their program, the FNL has drawn from a body of thought, a framework called "U Process", coined by Joseph Jaworski (1996), and further developed by Scharmer (2007), Scharmer and Kaufer (2013) and Senge, Scharmer, Jaworski and Flowers (2008). The U process shows how individuals, teams, organizations and large systems can build the essential leadership capacities needed to address the root causes of today's social, environmental, and spiritual challenges. In essence, the U process lays down the path to a person's inner source of leadership and creativity. It is a process that invites leaders to take a fresh look at the bigger picture and use all their senses to observe issues and challenges and create creative solutions.

Grounded in this framework the wilderness leadership program is a well-defined trajectory built around important so-called trail-principles: simplicity (disconnected from the mediated world and its built structures), sensing (opening up all senses), sharing (within dyads or councils with the 'talking-stick'), silence (during hikes and night watch), sincerity (being honest to oneself and others), service (caring for nature and each other), and self (who am I and what is my work?). It is the facilitator's role to monitor and apply the principles during the trail.

1.5.2 The trail program

The program trajectory is organized in six well-defined steps (Figure 1), which starts with preparation, followed by the trail itself and ends with a “landing conversation” and follow-up meetings at home. The entire process takes about four months but can last for many years because groups often continue to meet and support each other.

Figure 1. The Trail Process

Step 1: Intake conversation

The trail candidate meets the facilitator during a two-hour intake. The goal is to discuss how being in nature can contribute to personal growth through increased self-awareness and eco-awareness. In addition, the facilitator will get an idea about the motivation and intentions of the candidate. Questions such as these are asked: What has been your life path so far? Which questions would you like to put to nature? Why would you like to go on a trail? Together, the candidate and facilitator will establish whether they have found a mutual understanding and trust.

Step 2: Foundation Workshop

The foundation workshop is held about a month before the start of the trip. The participants meet each other for the first time. The aim of the workshop is to understand and endorse the purpose of the program, to get to know each other and to lay a foundation of mutual trust by sharing each other's intentions. Furthermore, the facilitator elaborates on the origin of the FNL, explains the U process theory as the basis for the trail, and discusses the trail principles. Finally, practical issues are discussed, such as the importance of keeping a journal, the rules of the 'Indian Talking Stick', which clothes and things to bring and logistics.

Step 3: The Trail

The participants meet at an agreed place, for example at the airport. The facilitator introduces an exercise in preparation for the transition to the wilderness. The aim is for participants to realize that they are about to cross the threshold to a new world. To be able to fully integrate and identify with this world participants have to detach themselves from their everyday world. Looking back with respect is a condition for freedom. In pairs, one tells the other which tasks they have left behind at work and at home during the coming week and why they can now participate in this journey.

Upon arrival, the group meets the local guides (in Europe usually one and in Africa two). Someone of the local organization takes and stores all valuables, such as passports, watches and mobile phones. The intention is that the participants give up their possessions that symbolize attachment to property and the world in which they live and work, in order to give them the opportunity to fully identify with themselves.

The first night is spent in a simple lodge or cabin. After dinner, participants, guides and the facilitator tell their personal life stories around the fire in a calm, safe atmosphere. The aim is the sharing and understanding of personal highs and lows. The session reconfirms openness towards each other and mutual trust. The next morning backpacks are prepared. The participants will certainly pack food bags, pans, sleeping bags and sleeping mats, but then have to decide which personal items they really need to bring. The backpack can only fit so much, and the weight also plays a role. The participants are then taken to the entrance of

Sleeping under the stars

the wilderness area. The wilderness areas were selected to meet the characteristics of environments that contribute to attention restoration as proposed by Kaplan & Kaplan (1998): Being away (distanced from the world of everyday pressures and obligations); fascination (effortless aesthetic appreciation); extent (connectedness, a sense of depth and continuity); and compatibility (a sense of fitting in, or ease of interaction with the surroundings).

From that moment, the local guides are in charge. In addition to their knowledge of nature and the area, their professionalism, experience and wisdom gives an extra dimension to the trail. In particular, they act as role models of authentic leadership through their oneness with nature and the way in which they treat nature with respect. With an access ritual (“Indaba in”) the guides often address their ancestors to ensure safety in the wilderness. In addition, participants are told about the safety and conduct rules in this new world. Then the group sets off. Participants walk behind each other in silence, the guides in front, on the

Reflection in solitude

way to the first camp site. In days that follow, they go on many hikes. The nights are spent as much as possible in the open air without shelter. In turns, the participants keep watch at night sitting next to a small campfire. Group councils are held every day with the talking stick to share experiences and insights. During each trail, there are periods of solitude varying from 4 to 48 hours depending on the presence of wild animals in the area. The participants get ample opportunity to be at peace in nature, to reflect on their experiences, and to write in their notebook. At the end of the trail, the transition to the civilized world is marked by an exit ritual (“Indaba-out”). Participants are asked to state what they want to leave behind (old views, obligations, habits) and what they want to take with them (new insights, ideas, intentions). In addition, they are asked to write a trail report in the coming weeks, based on the following questions: What essential experiences and insights have you had during the trail? What intentions arise from this regarding your personal, private and professional life? Participants are asked to send their trail report to the facilitator.

Step 4 Integration workshop

About a month after returning home, an integration workshop is organized. Participants share what they feel was the essence of the trail. In addition, participants discuss the first steps that have been taken to realize the stated intentions. The pitfalls they encountered are also discussed.

Step 5 Landing Conversation

Two months after the trail the individual participants discuss the trail report together with the facilitator. They particularly talk about how the participant experienced coming back after the trail, both at home and at work. They address how the participant has put his/her essence into practice and what actions they have taken to make work of their intentions. The possibilities of ongoing support are also explored. Practice shows that trail groups continue to meet regularly.

Step 6 Ongoing FNL meetings

In addition to the trail group reunion meetings, the FNL holds a large gathering with keynote speakers every year. Furthermore, there are regional meetings once every quarter where participants from different groups meet, mostly in nature environments, and share experiences with each other. In some cases, facilitators have coaching sessions with individual participants.

For several reasons, this training program of the Foundation for Natural Leadership provides a suitable context for studying the process of mind shifts in leaders. First, the program exceeds the average (short) short duration of leadership training programs. Second, the program is attended by actual leaders. Third, the program includes immersion in wilderness and therefore allows participants to be affected by benefits of nature experiences, including peak experiences that may act as trigger events. Together, these attributes make the specific training program a critical case: if in this context a change toward more authentic leadership cannot be observed, it is unlikely that this mind shift will occur in less extreme training programs. Finally, the researcher has acted as a facilitator and organized trails for the foundation and was therefore in position to question

participants. This also implies that it is important to reflect in advance on the role of the researcher in the PhD project, which is the subject of the final section of this introduction.

1.6 MY POSITION AS RESEARCHER

1.6.1 Why I conducted this PhD research

After I finished my corporate life in 2008, during a period of reflection, I thought about how I could give meaning to the rest of my life, besides spending time with my family and friends. I came to the conclusion that I wanted to continue to make a meaningful contribution to society by coaching managers. However, I realized that just having business experience is not enough. I am convinced that good preparation is a condition for success. So, I enrolled in an intensive coach training at the MMS Worldwide Institute in 2009 and became a certified executive coach. This professional coach training taught me how to ask questions in Socratic way, that is, to ask open-ended questions without judgments. I also learned about my inner self and how to address feelings. In fact, I learned to listen without judgment, and not to let the ‘being’ be clouded by ‘thinking’. The coach training has laid the foundation for me to be an effective coach for others.

At the end of 2009, as a participant, I participated for the first time in an FNL Wilderness Leadership Transformation Program in South Africa. The whole program and, in particular, the connection with nature, made an indelible impression on me. It gave me a profound deepening of my consciousness; I experienced it as a life-changing experience. In my mind I made a shift from ego-awareness to eco-awareness. I learned during that period that in the natural world the quality of giving full attention with pure intention builds respectful connections as a foundation for being in the moment and building trust. As I wrote at that time in my journal:

After having walked for a while with our backpack, which is becoming increasingly easy for me now that I know how to properly tighten the middle band, we arrive at a sandy bank of the river. We are going to cross it. Wayne,

Elephant leaves our backpacks untouched

our local guide, takes off his shoes and with the long walking stick in his hand he thoroughly and carefully explores the ford of the river. The banks are meticulously scoured to see if there are any crocodiles. He takes his steps carefully, his tall figure radiates complete confidence, he is a true bushman, completely intertwined with the Wilderness. After a while he comes back, it must have been at least half an hour. There is no hurry or pressure. We are about to take off our shoes, when a giant elephant appears on the high bank opposite us, apparently with the intention of also crossing the river. With his sonorous voice, Wayne says loudly in Zulu: Tabu Mkula (Big Mountain), Baba Hambili (Father, it's better to go back). We continue to tensely watch what follows. The elephant hesitates. As an elephant, he is visually impaired, so he can hardly see us, but he can hear and with his trunk he tries to catch our scent. Due to the changing wind, he does not succeed. I am sitting on my backpack and am completely absorbed in what is happening. I try to put myself in his mind. For a moment I feel like the elephant trying to discern that unclear thing

on the other side. Slowly, Big Mountain comes down step by step. Wayne calls to him again. But he is fully committed. He wants to drink and then move on. When he arrives at the river he starts drinking, he is only 20 meters away from us. Time and again he tries to catch our scent. Wayne observes and probably feels that he is going to cross. At that moment Wayne tells us to slowly move away, to offer space, to show respect and to leave the backpacks. Big Mountain is indeed going to cross. We are at a safe distance. With quiet steps he walks through the water, past our backpacks with his trunk half up and you see him thinking: Yak, what nasty, human smell. And walks away from us along the riverbank. Now respecting us. We wait a while longer and return to our stuff. What a wonderful experience, I felt completely in the moment, without any fear that things would go wrong, full of confidence and with deep respect. Nice to see how the Elephant respected us and our backpacks after we had given him the space and the respect.

(Journal notes, November 12, 2009)

As a result, it became my mission to help introduce leaders to this profound experience. I therefore decided that I wanted to become a facilitator at FNL, knowing that my business leader experience as well as my coaching expertise would be beneficial. Since then I have been able to facilitate more than 15 leadership trails in different areas in South Africa, Botswana and Ireland. In addition, I studied existing literature about the impact of nature on people. To my surprise, I found a dearth of literature about the impact of nature on leaders. Apart from a few studies with merely anecdotal accounts and small sample sizes, no robust empirical research has been conducted into the impact of nature on senior leaders with substantial sample sizes. This gave me the motivation to take up the scientific challenge to contribute to filling this gap by conducting my PhD research, and, as such, contributing to the development of knowledge and understanding of leadership and leadership development within the context of contemporary challenges.

1.6.2 My role as facilitator

Before and during my research period I have fulfilled the role of facilitator on wilderness trails several times. Obviously, it could be an option during the trail to observe the behavior of the participants and to take notes for the benefit of my research. However, I did not choose that option. First, because I do not think it is ethical to take on the role of academic observer as a facilitator. When participants talk about personal feelings, they must be able to assume that they are being listened to with full attention and pure intention and not that they are being observed for research purposes. Mutual trust and safety are important principles of the program. As an observer I would have violated these principles. Second, as a facilitator, you have to be fully available for the participants. In other words, if I would observe participants during the trail, it should be only in their interest for me to intervene when necessary, and not in my interest in gathering data. When I took notes in my journal it was always about my own experience with nature and reflections about my future.

Since I am involved with the work of the FNL and their goals, there was a risk that I would tend to search for, interpret, favor, and recall information in a way that affirmed my prior beliefs and my desire for the training program to be successful. This confirmation bias could for instance be displayed if I gathered information selectively or interpreted it in a biased way. For instance, I could be selective in the coding process during the qualitative content analysis of trail reports and interviews. Taking action in advance to prevent this potential confirmation bias was therefore crucial to ensure scientific integrity. The first of such measures was to use my own critical awareness by constantly scrutinizing my findings and asking myself if these results were unambiguously derived from the data. Secondly, I formulated systematic methods of data collection and analyses prior to conducting empirical research. Third, wherever possible, I involved multiple researchers, for instance to inspect transcripts, conduct intercoder-reliability tests, and to perform independent statistical analyses. The fourth measure was to expose myself to constant critical scrutiny from supervisors and other people who could help me do unbiased research. I remained open to new ideas and used their comments to make my claims clear and unambiguous.

CHAPTER 2

The role of wilderness experiences

in leaders' development towards authentic leadership

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ABSTRACT

This paper investigates the impact of leaders' wilderness experiences on intentions to transform leadership behaviors towards authentic leadership. Content analysis was used on trail reports made by participants of a wilderness-based leadership program. Participants (n=97) were leaders working in business and institutional settings, both males and females. Participants were asked to write personal reports within two weeks after the training program about their wilderness experiences, and related behavioral intentions.

Analyses revealed four categories of leaders' peak experiences: heightened sense of self, awareness of one's core values, deep connected attention, and being in full presence. These peak experiences triggered intentions to change future leadership behaviors: to be more aware of self, to live by the inner compass, to improve careful listening, and to become more transparent. These intentions closely resonate with the core components of authentic leadership. By demonstrating that being immersed in nature can act as a significant life event that has the potential to foster authentic leadership, this study provides an original contribution to the literature on strategies for intra-personal leadership development.

Keywords: Leadership development, Authentic leadership, Transformation, Self-awareness, Peak experiences, Wilderness

2.1 INTRODUCTION

In the ‘Survey on the Global Agenda’ held at the World Economic Forum 2015 in Davos, 86% of the respondents of a sample of 1.767 organizational leaders agreed that we have a leadership crisis in the world today (Outlook on the Global Agenda, WE-Forum, 2015). More than 50% of the participating leaders indicated lack of confidence as the root cause. Notably, the role of leadership is intensively discussed in contemporary western societies. Corporate scandals such as the Enron scandal and financial sector scandals have had a detrimental effect on trust in leaders. Also, leadership has become more complex, and performance pressures tend to increase. The role of contemporary leaders extends from a focus on traditional values (e.g., product/service quality, financial performance) to a broader orientation that includes social responsibility and environmental stewardship (Crooke, Csikszentmihalyi & Bikel, 2015).

Transformation into authentic leadership is advocated as a desirable shift that responds to these leadership challenges (Gardner, Avolio, Luthans, May, & Walumbwa, 2005; George & Sims, 2007; Luthan & Avolio, 2003; Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2007). The concept of authentic leadership reflects a pattern of behavior that draws upon and promotes both positive psychological capacities as hope, optimism, confidence and resilience (Clapp-Smith, Vogelgesang & Avey, 2009), as well as a positive ethical climate (Walumba et al., 2007). Development into authentic leadership requires considerable intra-personal transformation and conventional leadership training programs probably fall short in doing so (Harung, Travis, Blank & Heaton, 2009). A different approach to foster self-awareness and increase self-regulation (Day, 2012), and constitute significant life events (Luthans & Avolio, 2003; May, Chan, Hodges & Avolio, 2003), is likely to be more successful. Research suggests that immersion in wilderness can evoke significant life events (Csikszentmihalyi, 1990; Maslow, 1964) and increase self-awareness (Frieze, Pitmann & Hendee, 1995) and self-regulation (Bratman, Hamilton & Daily, 2012). As a novel contribution to the literature, the aim of the present study is to investigate the potential of wilderness experiences to foster intra-personal shifts towards

authentic leadership. We examined the written reports of organizational leaders participating in a wilderness-based leadership transformation program.

2.2 THEORETICAL FOUNDATION AND RESEARCH QUESTIONS

2.2.1 Authentic leadership

Societal challenges have fueled a focus on leadership styles and characteristics (Avolio & Gardner, 2005), to promote ‘post-traditional’ forms of leadership (Avolio & Luthans, 2006; Cooper, Scandura, & Schriesheim, 2005), as expressed by various concepts such as transformational (Bass & Steidlmeier, 1999), ethical (Brown, Treviño & Harrison, 2005), spiritual (Frey, 2003; Crossman, 2011) and authentic leadership (Avolio, Gardner, Walumbwa, Luthans, & May, 2004; Avolio & Luthans, 2006; George & Sims, 2007). The concept of authentic leadership is the most comprehensive one as to include leadership attributes articulated by the other concepts (Avolio & Gardner, 2005; Gardner, Avolio, Luthans, May, & Walumbwa, 2005; George & Sims, 2007; Luthans & Avolio, 2003; Walumbwa et al., 2007). Criticism has challenged the assertion that being more authentic does not necessarily constitute a better leader (Nyberg & Sveningsson, 2014). Yet, the technical conceptualization of the concept into the four core components of self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency (Avolio, Walumbwa & Weber, 2009) arguably reflects leadership traits that are conducive to meet contemporary challenges. Self-awareness refers to a process of reaching a deeper understanding of one’s strengths and weaknesses (Gardner et al., 2005). An internalized moral perspective reflects a self-regularity process whereby leaders use their internal moral standards and values to guide their behavior rather than allow outside pressure to control them. Balanced processing implies leader’s ability to analyze information objectively and explore other people’s opinions before making a decision. Relational transparency denotes openness and honesty in presenting one’s true self to others (Walumbwa et al., 2007), and occurs if leaders share their core feelings, motives,

and inclinations with others (Kernis, 2003). We used the four-component conceptualization as an analytical tool to evaluate whether the leadership intentions emerging upon the wilderness-based training program flag a transition towards authentic leadership.

2.2.2 Leadership development

Scholars argue that leadership is a set of behavioral skills which can be learned. Yet, experience shows that conventional leadership training strategies are not enough to transform individuals into leaders (Harung, et al., 2009). Reframing one's psychological boundaries, recognizing interdependences with other people, and discerning leadership purpose are key steps in leader development (Zheng & Muir, 2015). As these key steps require deep efforts, intra-personal transformation into a more authentic leadership style might be hard to achieve. Suggested strategies to foster change include leadership training programs (Baron & Parent, 2015; Eich, 2008), executive coaching, effective management feedback (Furnham, 2010) and building the capacity of self-reflection (Gardner et al., 2005). Researchers assume that becoming an authentic leader would be possible for the majority of individuals using appropriate strategies (Baron & Parent, 2015; Cooper et al., 2005; May et al., 2003). However, empirical research into the effectiveness of transformation strategies is needed to substantiate this claim (Avolio et al., 2009; Baron & Parent, 2015).

Management scholars emphasize that significant life events have the potential to promote authentic leadership development (e.g., Cooper et al., 2005; Gardner et al., 2005; Luthans & Avolio, 2003; May et al., 2003), in line with the more general suggestion by psychologists that these events are catalysts for intra-personal transformation. Profound experiences, such as glorious sunsets, great works of art, intellectual epiphany, and the beauties of nature all evoke an intense response, constituting a significant life event (Shiota, Keltner & Mossmann, 2007). These events usually involve both emotion and cognition, and generally carry with them some important meaning and insight for the individual (McDonald et al., 2009). The concept of peak experiences denotes the psychological counterpart of significant life events. Peak experiences are described as exciting, oceanic,

deeply moving, exhilarating, and elevating experiences that generate an advanced form of perceiving reality, and that are even mystic and magical in their effect (Maslow, 1964). Studies demonstrated that people associate these experiences with a strengthening or positive shift of their mental dispositions toward themselves and their physical and social environment (Smith, Ham & Weiler, 2011; Boniface, 2000; Higgs & Rowland, 2011). In summary, peak experiences are positive, emotionally and cognitively intense, stand out, and have the potential to fuel lasting change in subjects. For these reasons, we paid special attention to the occurrence of peak experiences in our analysis of training program participants' experiences.

2.2.3 Effects of wilderness experiences

Significant events and peak experiences are not confined to specific settings. Yet, especially immersion in wilderness can induce high impact experiences, which are subsequently becoming significant life events in memory (Boniface, 2000; Csikszentmihalyi, 1990; Maslow, 1964; McDonald et al., 2009). For example, Maslow (1964) argued that wilderness settings can evoke peak experiences. In similar vein, Csikszentmihalyi (1990) contended that nature can fuel flow experiences, in which a person performing an activity is fully immersed in a feeling of energized focus, full involvement, and enjoyment in the process of the activity. Both DeMares (2000) and Laski (1961) have specifically noted that wildlife interaction and observation can act as causal factors for peak experiences. Empirical research supports these claims (Ashley, 2007; Boniface, 2000; Hinds, 2011; McDonald et al., 2009).

In addition, research indicates that spending time in nature can have profound psychological effects, including stress reduction (Ulrich, Simons, Losito, Fiorito, Miles, & Zelson, 1991), attention restoration (Kaplan, 1995), emotional well-being (Hinds & Sparks; 2008; Hinds, 2011; Zelinsky & Nisbet, 2012), personal development and increased self-awareness (Frieze, et al., 1995; Heintzman, 2009; Kaplan & Kaplan, 2009; Paxton & Mcavoy, 2000), self-sufficiency, independence and self-regulation (Bratman et al., 2012; Kaplan, 1995; Mayer, Frantz, Bruehlman-Senecal, & Dolliver, 2008), creativity and inspiration, spirituality, greater authenticity

and connectedness (Fredrickson & Anderson, 1999; Howell, Dopko, Passmore, & Buro, 2011; Kaye, 2006), and increased intentions to pro-social behavior (Weinstein, Przybylski, & Ryan, 2009; Morse, 2014). Many of these documented effects resonate well with the core components of authentic leadership (self-awareness, internalized moral perspective, balanced processing, and relational transparency).

2.2.4 Summary of argument and research questions

To conclude, the literature provides good reasons to expect that (a) immersion in wilderness can lead to significant life events through evoking peak experiences, (b) wilderness experiences can constitute a variety of other positive psychological effects, (c) these significant life events and subsequent peak experiences might catalyze intentions to change one's leadership style, and (d) promote psychological traits that align with the core components of authentic leadership. Three research questions guided our research:

1. Which peak experiences occurred during wilderness trails?
2. Which behavioral intentions emerged?
3. To what extent do these intentions resonate with the core components of authentic leadership?

2.3 METHODS

2.3.1 Context

The present research was conducted amongst participants of the Wilderness Leadership Transformation Program (WLTP) of the Foundation for Natural Leadership (FNL), based in The Netherlands. This program consists of a four to six-day wilderness trail with a group of five to seven participants, completed with one or two local guides and a certified FNL facilitator. Before the trail, an intake-conversation was held, aimed to address the participants' motivation, as well as a meeting aimed to get the participants to know each other and to provide practical information about the program. The design of the trail meets the conditions for participants to be fully immersed in nature. Participants go into

wild, remote natural places without human made facilities, make hikes every day, take only a backpack with a sleeping bag and food. Trails are organized in remote wilderness places in Switzerland, Ireland, South Africa and Botswana. Besides camping, walking in silence, periods of solitude and sleeping under the stars, there is ample time for self-reflection, telling life-stories, one-to-one conversations and sharing experiences while sitting in a circle.

After the trail the individual participant and the facilitator evaluated the event and the commitments and intentions that have emerged. Finally, after two months, trail participants were meeting to share how those commitments and intentions translate into practice. Participants included both female and male leaders, working in business, banking, and institutional and governmental settings.

2.3.2 Data

As part of the program, participants were instructed to describe what their experiences were, how the experiences had affected them, and what commitments and intentions, both in their professional and personal lives, had developed. Reports were written after the end of the trail, when memories were fresh, and submitted within two weeks after program participation. Participants were encouraged to make notes during the trail, to facilitate the report writing. Past participants since 2008 (N=189) were asked to make these reports available for the present study, upon written consent of the facilitators and participants and guaranteed anonymous treatment of data. In total, 118 reports have been collected, rendering a response rate of 62%. Of these 118 reports, 21 were excluded from the current analyses, because these reports did not meet the requirements; for instance, travel stories and not experiences and intentions were reported. Of the 97 reports, 33 reflected trails in Europe (The Alps and Ireland), and 64 in Africa (South Africa and Botswana).

2.3.3 Analysis

The aim of qualitative data analysis is to reduce the complexity of raw data into meaningful summaries on an abstract level, in response to the research questions posed. To do so, the process of qualitative data analysis involves formulating

concepts that satisfactorily represent the content of texts (Hsieh & Shannon, 2005), and subsequently assigning codes (representing these concepts) to quotes (distinctive phrases in the texts). The analysis consisted of seven phases.

First, each of the 97 trail reports were read and reread to fully comprehend the content and hence get a good sense of the raw data. Second, within the total set of trail reports, 1646 distinctive phrases or excerpts were identified as expressing a discrete thought or idea. Third, each of these individual phrases were labeled with an initial open code, indicating the meaning of the phrase in terms of a summarizing abstract expression. As an example, the phrase “[...] more inner peace of mind, feeling more inner power” was coded as “insight in inner strength”. Thus, a first codebook was developed on the basis of a bottom-up, data-driven interpretation. Fourth, the initial codebook was revised in several phases, by means of comparing initial codes and the underlying texts, considering combining or subdividing initial codes, and evaluating whether the revised codebook would adequately, meaningfully and efficiently reflect the variety of peak experiences and intentions of the participants. For example, the initial code of “insight in inner strength” was combined with closely related other initial codes into the broader code of “heightened sense of self”. Fifth, the final codebook was used to code each of the 1646 phrases that were previously distinguished (see Tables 2 and 3 for the final codes of peak experiences and intentions with example phrases). Sixth, the coded transcripts were analyzed to investigate how peak experiences might relate to intentions. The co-occurrence coefficient, also known as the Jaccard-index, was used as a measure of the strength of relationships. The c-coefficient is an equivalent of a correlation, yet specifically developed for qualitative data (Real & Vargas, 1996). It has a value between 0 and 1 and is calculated as the number of participants in which a given peak experience and given intention occur both, divided by the number of participants in which either one or both occur. We used this coefficient for a systematic evaluation of co-occurrence. Seventh, an inter-coder reliability test was conducted in which two researchers coded a sample of phrases independently. Kappa was used as the statistical estimate of agreement between coders. Kappa's were .82 for the peak

experiences, and .84 for the intentions. The outcomes suggest ‘almost perfect’ inter-coder reliability (in terms proposed by Landis and Koch, 1977). The qualitative data analysis program DeDoose.com was used for data analyses. As data-analysis revealed no systematic differences in experiences and intentions between participants in African and European training locations, our results section reports on the whole group.

Qualitative data analysis, more so than quantitative data analysis, is potentially susceptible to subjective decision-making. Our attempts to avoid subjectivity in our analyses included the involvement of multiple researchers, a systematic and explicit procedure that was established prior to data analyses, concrete products of each analysis phase that can be consulted upon request (document with all reports, initial codebook, final codebook, coded reports), and the inter-coder reliability test.

2.4 RESULTS

2.4.1 Peak experiences

Participants reported a stream of nature experiences: fascination for the beauty of nature (almost half of the participants), increased sensory awareness (vast majority), feeling one with nature (vast majority) and deep connection with self (nearly everyone).

This flow of experiences culminated into meaningful associations evoked by nature as a model of thinking, producing metaphors, flashes of insight and inspirational ideas. For example, one participant expressed: *“I saw two elephants rumbling through the water. A male elephant chased a female. For me this symbolized the driving up effect of the male making the female run away. My insight was that driving up does not connect and makes the other flee.”* Participants characterized many experiences with words like ‘intense, a sudden realization, deeply moving, powerful, enormous feeling, elevating, being reborn’, flagging

peak experiences. Four types of peak experiences were apparent: heightened sense of self, awareness of one's core values, a sense of deep connected attention, and being in full presence (Table 2).

Table 2. Peak experiences

Categories	Representative excerpts
Heightened sense of self	<p><i>... I feel cleansed, reborn, quiet and incredibly strong...</i></p> <p><i>... This was one of the most powerful experiences I ever had, the rediscovering of my true nature...</i></p>
Awareness of one's core values	<p><i>... I felt again my hidden convictions and values...</i></p> <p><i>... I realized the importance of using feeling as a compass, and then I feel peaceful and balanced...</i></p>
Deep connected attention	<p><i>... really giving attention to the person, the thought, what it brings forward in all its senses, like in nature...</i></p> <p><i>... I was looking from within, I was connected...and I realized how deeply I loved my family, which I am gonna tell them.</i></p>
Being in full presence	<p><i>... feeling the stillness inside, feeling my energy, it makes my intuition stronger...</i></p> <p><i>... To float on the waves of the sea, board with the warm air flow, flow along with the river, trust your intuition, peace building, silence. Life in the here and now, enjoy the moment. Without prejudice. Then everything falls into place by itself...</i></p>

Heightened sense of self (reported by the majority) refers to better understanding of who one really is, and the increased feeling of reaching one's highest potential. Participants perceived themselves as being reborn and vital. By searching for, and eventually finding, the right words to articulate their feelings they realized

a state of flow and could express their deepest feelings. Participants had rediscovered themselves and got a better sense of what they really wanted to get out of life.

The experience of being aware of one's core values was reported by half of the participants as the elevating realization of the importance to stick to their beliefs and values with full determination. Participants wrote that they had rediscovered their hidden convictions and values. They felt experiences of pleasure and balance when they felt connected to their inner compass.

Deep connected attention (reported by the majority) refers to participants' deeply moving feeling of the significance of careful observing and listening to nature and to the other. Participants reported that they experienced the power of attentive, compassionate listening to their peers. Also, they felt intensely how much they loved their families, realizing that they scarcely had told them. Next, participants experienced the inner balance of sharp sensory awareness connected with a profound feeling like coming home. Participants felt as if nature had anchored itself in their minds, especially that 'sacred place', where they had experienced their flashes of insight. Back home and in their workplace environment, on moments that matter, participants expected to instantaneously remember this place as a solid, peaceful and vibrant platform from which they could operate with peace of mind, connected to their inner self.

Finally, the peak experience of being in full presence (reported by more than half of the participants) refers to the insight of the importance of enjoying the 'here-and-now'; thereby enjoying every step one takes in nature, associating it metaphorically with daily life. It also refers to the realization that one can trust feelings of inner knowing and intuition in the moment. Participants reported as well that, by being in the moment, they were able to embrace their fears and replace them by courage and alertness.

2.4.2 Intentions

Data analysis revealed four types of intentions: be more aware of self, live by the inner compass, improve careful listening, and become more transparent (Table 3).

Table 3. Intentions and resonance with AL components.

Intentions	Representative excerpts	AL Components
Be more aware of self	<p><i>... the trail made me rediscover who I really am which enables me to make unprejudiced choices...</i></p> <p><i>... By the trail I got to see who I am. Thereby I will make choices as to how I go live my life and work over the next few years and how I will contribute to the world around me...</i></p>	Self-awareness (a process of reaching a deeper understanding of one's strengths and weaknesses)
Live by inner compass	<p><i>... follow my core values and do the things which give me energy; walk my own path; take the time to reflect and to change...</i></p> <p><i>... I want to be sincere and honest and how I practice this in private and business...</i></p>	Internalized moral behavior (a self-regularity process whereby leaders use their internal moral standards and values to guide their behavior rather than allow outside pressure to control them.)
Improve careful listening	<p><i>...increase and evoke stillness on a regular basis creates overview and insight, radiating peace of mind, peace of action...</i></p> <p><i>...Listen, listen and listen again to what is going on in people to be able to respond to this...</i></p>	Balanced processing (ability to analyze information objectively and explore other people's opinions before making a decision)

Table 3. Continued

Intentions	Representative excerpts	AL Components
Become more transparent	...going to a deeper level with my team by sharing more personal things... ... I will show more my emotions. Emotion gives strength. I have found, although it makes me vulnerable, but that vulnerability makes me what I am...	Relational transparency (openness and honesty in presenting one's true self to others)

Being more aware of self (reported by the majority) implies the intentions to better understand who one really is, to realizing the importance of having an open mind, and to building in moments of reflection in their daily activities.

Participants wanted to live and work more from their inner source, knowing their qualities and weaknesses. These intentions resonate with the component of self-awareness of authentic leadership, referring to a process of reaching a deeper understanding of one's strengths and weaknesses, and being cognizant of one's impact on other people.

Living by their inner compass (reported by the majority) reflects participants' intentions to stick to their vision and to be honest and sincere in business as well as in their personal and private context. They intended to follow their core values and take time to reflect on them. These intentions resonate well with the authentic leadership component of internalized moral behavior, describing the state that the leader is guided by internal moral standards and values.

Improve their capability of careful listening (reported by half of the participants) encompasses the intentions to give full-hearted attention to their employees and colleagues in their workplace environment as well as to their beloved ones in

their private daily live. Participants intended to practice nonjudgmental listening and to increase and evoke quietness in themselves in order to create overview and insight. In addition, they wanted to become a servant leader through wanting to empower and develop their employees, expressing stewardship, humility, respect and authenticity. This intention resonates with the third component of authentic leadership: balanced processing, referring to the state that leaders objectively analyze all relevant data before making decisions, whilst soliciting views that challenge their deeply held positions.

Becoming more transparent (half of the participants) refers to the intentions to make conscious choices and decisions on the basis feelings of inner knowing and intuition, and clearly communicate those choices and decisions. Participants indicated the will to reveal more personal aspects in their teams. They were willing to show their vulnerability, creating a much more open and sincere interaction. These intentions resonate with the fourth component of authentic leadership: relational transparency, referring to openness and honesty in presenting one's true self to others.

The co-occurrence matrix (Table 4) indicates that there are no outstanding specific relationships between peak experiences and intentions. As an example, the first figure of 0,53 means that of the participants who have experienced a heightened sense of self and/or expressed the intention to be more aware of self, approximately half has both. Overall, the pattern reveals that any type of peak experience relates substantially with any type of intention. This suggests that the relationship is rather holistically and transcending specific types. If participants had peak experiences, they were like to feel intentions that resonate with authentic leadership as well.

Table 4. Matrix of co-occurrence coefficients.

Peak experiences	Intentions			
	Be more aware of self	Live by my inner compass	Improve careful listening	Become more transparent
Heightened sense of self	0,53	0,48	0,46	0,38
Awareness of one's core values	0,44	0,47	0,41	0,34
Deep connected attention	0,58	0,55	0,56	0,41
Being in full presence	0,47	0,38	0,47	0,47

2.5 CONCLUSION AND DISCUSSION

Our analysis revealed the emergence of four types of peak experiences: heightened sense of self, awareness of one's core values, deep connected attention, and being in full presence. The peak experiences were perceived as strong, deeply moving, and elevating, in accordance with Maslow's (1968) definition of peak experience. These peak experiences triggered behavioral intentions, resonating with the core components of authentic leadership (Avolio, Walumbwa & Weber, 2009b). Thus, our study suggests that being immersed in nature can act as a significant life event that has the potential to foster authentic leadership.

The question of how to increase authentic leadership behavior is an important one for management science in order to contribute to solving societal problems, and the literature has identified the need to empirically address this question (Avolio & Mhatre, 2012). Longitudinal studies indicate that leaders can and do develop over time (Day, 2012). In their meta-analytic review of leadership impact research, Avolio, Reichard, Hannah, Walumbwa & Chan (2009a) concluded that

leadership interventions produced a 66% probability of achieving a positive outcome. However, Cooper et al. (2005) suggested that authentic leadership is not like other areas of leadership for which competency sets might be acquired in traditional training programs. More specifically, significant life events, that trigger personal growth and development, could be an important component of authentic leadership development (Cooper, et al., 2005): the interaction of the trigger event and personal insight might produce behavioral change.

Our study corroborates the assertion that many individuals have the potential to become authentic leaders, provided that the skills identified for development and the techniques chosen to develop them are appropriate (Baron & Parent, 2015; Cooper, et al., 2005; May, et al., 2003). Moreover, our findings identify attributes of trigger events that are conducive to shifts towards authentic leadership. First, being immersed in a world – wilderness – that is very different from the daily world leaders live in. The different world does not contain reminders of daily hassles and is at the same time a source of inspiration (cf. Kaplan & Kaplan, 2009). Second, coping with challenges for which knowledge and skills other than those important in daily life are needed. Being able to cope with those new challenges fosters self-empowerment and increases trust that other challenges, such as the challenge to change leadership behavior, can be dealt with as well. Third, engaging with peer-to-peer conversations. Peers, more than instructors, can act as mirrors of the self, and interactions promote co-development of insights and reflection. In general, empirical research demonstrates peer learning to be an effective form of learning (Clark & Dumas, 2015), implemented by narratives processes and life-story telling such as in the present study (Shamir & Eilam, 2005; Sparrowe, 2005). The re-telling of life stories can enable leaders to reflect upon their values, emotion and to define anchor points from which their leader approach and identity develops and grows (Turner & Mavin, 2008).

In addition, our study extends the literature on the positive effects of nature experiences (Weinstein et al., 2009) by suggesting that wilderness experiences can also nurture changes into leadership styles that are more beneficial to society at large. Our findings concur with psychological consequences of wilderness

experiences, as revealed by Talbot and Kaplan (1986), such as nature capturing one's full attention, feeling connected with nature, a sense of coherence, perceiving deeper levels of understanding of oneself, and seeing life from a different perspective.

Our sample consists of leaders who have deliberately made the choice to invest in their personal growth and leadership development by participating on a wilderness trail; in other words, people characterized by developmental readiness (Hannah & Avolio, 2010). Hence, findings cannot blindly be generalized to all leaders. On the other hand, developmentally ready leaders are the subset of leaders that is particularly relevant to studying change towards authentic leadership, as it is hard to imagine how leaders who are not willing to change can be moved towards becoming authentic leaders (George & Sims, 2007; Avolio, et al., 2010). Another limitation of the present study is that actual changes in leadership style are not assessed. As a follow-up investigation, we are currently collecting data amongst new participants for a longitudinal study in line with scholarly summons for a greater focus on longitudinal research (Avolio & Mhatre, 2012). Authentic leadership is measured before participation, shortly after participation, and one-year participation, to examine whether the program indeed contributes to developing authentic leadership, and whether authentic leadership will last.

Finally, our study context reflects arguably an extreme form of transformation potential, with people being fully immersed in wilderness for days. Hence, the potential for change as detected here does not necessarily translate to other, less extreme transformation programs. Yet, the attributes of the transformation program that foster change as revealed here – being in another world, facing unfamiliar challenges, peer-to-peer learning – can probably be flexibly adopted and implemented in other leadership transformation programs as well.

CHAPTER 3

Nature-based training fosters

authentic leadership

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ABSTRACT

Authentic leadership is frequently promoted as a leadership style that responds to the contemporary challenges that leaders face. This experimental study ($n = 66$) tested intrapersonal change toward authentic leadership after participation in a nature-based training program that included a stay in remote wilderness without any facilities. Authentic leadership was measured before, immediately after and one year after the training program. All components of authentic leadership increased, namely self-awareness, internalized moral perspective, balanced processing, and relational transparency, with medium to large effect sizes ($d \approx .7$). Changes in general personality traits were of a lower magnitude, suggesting that change was specific to authentic leadership, rather than extending into general psychological characteristics. The findings demonstrate that a nature-based training program can increase authentic leadership. Immersion in wilderness is possibly conducive to change in leadership style, and could be considered as a strategy for fostering leadership change.

Keywords: nature immersion, authentic leadership, leadership styles, leadership characteristics, leadership training

3.1 INTRODUCTION

Over the last three decades, the role of contemporary leaders has expanded from one that focuses on traditional organizational values (e.g., product and service quality, financial performance) to one with a broader orientation that includes social responsibility and environmental stewardship (Crooke, Csikszentmihalyi, & Bikel, 2015). In addition, leaders in Western societies have been confronted with public distrust (Burke, 2006; Williams, Campbell, McCartney, & Gooding, 2013). In response to the challenges of increasing complexity and decreasing trust, scholars and organizations have started to reflect on leadership styles and characteristics (Avolio & Gardner, 2005), to promote “post-traditional” forms of leadership (Avolio & Luthans, 2006; Bennis, 2007; Cooper, Scandura, & Schriesheim, 2005). Various concepts reflect post-traditional leadership styles, such as transformational (Bass & Bass, 2008; Bass & Steidlmeier, 1999), charismatic (Conger & Kanungo, 1998), servant (Greenleaf & Spears, 1998; Van Dierendonck, 2010), ethical (Brown, Treviño, & Harrison, 2005), spiritual (Crossman, 2011; Fry, 2003), and authentic leadership (Avolio, Gardner, Walumbwa, Luthans, & May, 2004; Avolio & Luthans, 2006; George & Sims, 2007; Hofman, 2005; Lorenzi, 2004). Authentic leadership is the most comprehensive leadership style concept, as it includes leadership attributes articulated in the other concepts (Avolio & Gardner, 2005; Gardner, Avolio, Luthans, May, & Walumbwa, 2005; George & Sims, 2007; Luthans & Avolio, 2003; Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2007). Authentic leadership is defined as “[a] pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development” (Walumbwa et al., 2007, pp. 94). As such, commitment to authentic leadership would increase the capacity of leaders to respond to current challenges (Hannah, Avolio, & Walumbwa, 2014; May, Chan, Hodges, & Avolio, 2003). Greater ethical responsibility and transparency from the leaders could foster increased social responsibility and environmental stewardship, as well as contribute to building public trust.

Change toward authentic leadership may occur intergenerationally. For instance, younger leaders, as a result of changes in curricula over the years, might already have more authentic leadership attributes than leaders from previous generations. If younger leaders then succeed older leaders when they retire, an aggregate level shift in leadership style might occur. However, such hypothetical intergenerational change is likely to be slow. Intrapersonal change toward authentic leadership would be faster and hence more effective when it comes to addressing contemporary leadership challenges. The present paper describes a study into the effect of a nature-based training program on intrapersonal change toward authentic leadership. A positive effect could provide managers with an additional tool for leadership development and influence the change towards authentic leadership.

3.2 LITERATURE REVIEW

3.2.1 Authentic leadership: characterization, criticism and components

Authentic leaders gain credibility and the trust of their followers through behavior that is in accordance with their values (Avolio et al., 2004), and genuinely desire to serve others through their leadership (George, 2003). Authentic leaders are characterized as leaders who are deeply aware of their values and beliefs, are self-confident, genuine, reliable and trustworthy, take care of the development of their followers, enlarge their scope of interest, and establish an engaging, positive organizational climate (Avolio & Gardner, 2005; Gardner et al., 2005). In leadership literature, authentic leadership is considered to be a “root concept” that underlies all forms of positive leadership and its development (Ilies, Morgeson, & Nahrgang, 2005). For instance, Luthans and Avolio (2003) contended that authentic leaders have positive psychological capabilities (confidence, hope, optimism, resilience), are morally grounded, future-oriented, and focus on developing other leaders. Authentic leaders stay close to themselves. Kernis (2003) argued that authenticity entails the unimpeded operation of one’s true self in everyday life. Shamir and Eilam (2005) described authentic leaders

as people whose role is a central component of their self-concept; who have a clear concept of self, and subsequently have self-concordant goals and show self-expressive behavior.

Leadership scholars have criticized the literature on authentic leadership, questioning whether a “true self” or “authentic self” exists, and whether acting according to one’s true self would lead to morally good behavior (Collinson, 2011; Spoelstra, Butler, & Delaney, 2016). Whether the criticism is justified or not, an appraisal of relevant criticism is important to avoid blind adoption of the authentic leadership concept.

The question of whether a true self exists has a long-standing history in philosophy. For example, Aristotle’s notion of “*eudaimonia*” refers to a life that is lived in truth with one’s true being (Pojman, 2006). Others have argued that being authentic is not possible, because an individual has no fixed inner essence to be “true” to (Golomb, 1995). Existential philosophers, such as Sartre, Kierkegaard, Heidegger and Buber, addressed the importance of the true self when individuals try to give meaning to their lives and live authentically (Macquarrie, 1972). The existential philosophers did not claim a fixed true self, but rather stressed that individuals are always situated in historical and social contexts (Gardiner, 2015). Seeking authenticity is a process in which the self continuously transforms through compromises regarding social norms and standards (Heidegger, 1962; Sartre, 1996). In concordance, the transformation processes of true selves in relation to their social contexts are important perspectives that are represented in the leadership literature as well (Ford & Harding, 2011; Shaw, 2010). Some literature on authentic leadership suggests people do have a fixed authentic self that needs to be found and emphasized in one’s leadership orientation (Avolio & Gardner, 2005; Bass & Steidlmeier, 1999). Yet, others have conceptualized authenticity as an ongoing process that requires a connection with the organizational collective, conjointly enhancing meaningful work and ethical behavior (Algera & Lips-Wiersma, 2012; Nyberg & Sveningsson, 2013).

Similarly, literature on authentic leadership suggests that the concept builds on the implicit premise that acting in accordance with an essential true self is morally

good (Avolio et al., 2004; Ilies et al., 2005; Ladkin & Taylor, 2010; Luthans & Avolio, 2003; Walumbwa et al., 2008, 2010). Yet, implicit suggestions do not imply that the same authors believe the premise is true. There is no *a priori* reason to assume that emphasizing one's authenticity (whether fixed or perpetually constructed) leads to good behavior (Algera & Lips-Wiersma, 2012; Ford & Harding, 2011; Nyberg & Sveningsson, 2013). In addition, the notion of good behavior is in itself problematic, as behavior in complex settings is rarely purely right or wrong (Lawler & Ashman, 2012) and what is right or wrong depends on the observer's perspective.

In short, the existence of a fixed authentic self and the idea of good moral behavior as an automatic outcome of being authentic cannot be assumed. In the present study, both assumptions are not necessary, because the measures reflect the four core components of authentic leadership (Avolio, Griffith, Wernsing, & Walumbwa, 2013; Avolio, Walumbwa, & Weber, 2009a). These four components are: (a) self-awareness, which refers to understanding one's strengths and weaknesses; (b) internalized moral perspective, which is a self-regularity process guided by moral standards and values; (c) balanced processing, which implies objectively analyzing all relevant information before making a decision; and (d) relational transparency, which denotes openness and honesty in presenting oneself to others. The four-component model was operationalized as a survey instrument and successfully employed and validated in a variety of studies (e.g., Gardner, Coglisier, Davis & Dickens, 2011; Neider & Schriesheim, 2011; Walumbwa et al., 2007). It is probable that people have, for instance, strengths and weaknesses, internal moral standards, and core beliefs, regardless of the question of whether a pre-existing authentic self exists. In the present study, the instrument was applied longitudinally within an experimental design to assess authentic leadership development. It is likely that increased internalized moral perspective and relational transparency are conducive to meet the challenge of public distrust in leaders, and that self-awareness and balanced processing help address the challenge of increased complexity.

3.2.2 Investigating leadership change

Leadership scholars have contended that intrapersonal leadership development practices are a loose collection of assumption-driven actions, rather than evidence-based programs (Day, 2000; Day & Halpin, 2012; Luthans & Avolio, 2003). Nevertheless, reviews suggest that leadership interventions can have the intended positive effects (Avolio, Reichard, Hannah, Walumbwa, & Chan, 2009a; Collins & Holton, 2004; Day, Fleenor, Atwater, Sturm, & McKee, 2014). The most comprehensive review, a systematic meta-analysis of 200 empirical studies, suggested a 66% probability of achieving a positive outcome after leadership interventions (Avolio et al., 2009a). On average, the effects sizes were moderate, yet the effectiveness largely varied across studies.

Experimental studies have investigated specific outcomes of training or other interventions, such as task performance, job satisfaction, or persuasiveness (for specific examples, see Avolio et al., Table 2, 2009a). Experimental studies have not yet addressed the effect of interventions on general authentic leadership style, rather than specific behaviors or mental dispositions. Thus, the present study makes an original contribution to the literature by investigating general authentic leadership change.

Only a few studies on leadership intervention effects included a thorough evaluation and measurement of leadership development outcomes (Gurjian, Halbeisen, & Lane, 2014; Kaiser & Curphy, 2013). Studies with longitudinal measurements, which allow systematic comparison of leadership attributes before and after intervention, are relatively rare (Day et al., 2014). A qualitative study by Baron and Parent (2015) suggested that participants in a training program introspectively noticed development in three dimensions of authentic leadership (self-awareness, relational transparency, and balanced treatment of information). Another study used classroom trigger events and an exercise, and concluded that these interventions stimulated a learning orientation toward authentic leadership based on a content analysis of students' narratives (Roche, 2010). While these findings suggest that authentic leadership development is achievable, there is still a need for quantitative research, which allows statistical testing (Cooper et al., 2005; Day et al., 2014; Luthans & Avolio, 2003; Roche, 2010). The present study

applied an experimental design with quantitative measures to investigate change toward authentic leadership.

Most of the studies on leadership interventions are laboratory studies or focus on leadership development programs that use traditional settings such as conference venues (Day, 2011). However, other spatial contexts might be conducive to leadership development as well. “Critical life events”, that is, trigger events that shape people’s lives, are an important antecedent of authentic leadership (Cooper et al., 2005; Gardner et al., 2005; Lord & Hall, 2005; Luthans & Avolio, 2003; Isabella, 1992). Especially spending time in nature could act as a trigger event that could foster authentic leadership (Shamir & Eilam, 2005; Sparrowe, 2005). Evidence from environmental psychological research indeed confirmed that being in nature has various psychological effects, some of which resonate closely with the components of authentic leadership. These effects include stress reduction (Bratman, Hamilton & Daily, 2012; Kaplan, 1995; Ulrich, Simons, Losito, Fioritoni, Miles, & Zelson, 1991); attention restoration (Berman, Jonides & Kaplan, 2008; Cole & Hall, 2010); emotional well-being (Hinds, 2011; Hinds & Sparks, 2008; Zelinsky & Nisbet, 2012); personal development and increased self-awareness (D’Amato & Krasny, 2011; Friese, Pitmann, & Hendee, 1995; Heintzman, 2009; Talbot & Kaplan, 1986); an increase in creativity, inspiration and spirituality, greater authenticity, and connectedness (Fredrickson & Anderson, 1999; Howell, Dopko, Passmore, & Buro, 2011; Kaye, 2006); and potential for contributing to sustainability (Koskela & Goldman Schuyler, 2016). Thus, immersion in wilderness could induce high-impact experiences, which might act as trigger events fostering intrapersonal change (Boniface, 2000; Maslow, 1964; McDonald, Wearing, & Ponting, 2009). The present study makes a novel contribution to the literature by investigating the effect of participation in a 14-week nature-based leadership training program on intrapersonal change toward authentic leadership. The core of the program consists of immersion in remote wilderness for 4 to 6 days, preceded by introductory and preparation meetings, and followed by reinforcement and evaluation meetings. While the literature assumes authentic leadership development to be a lifelong learning process (Day & Halpin, 2012; Lord & Hall, 2005), long-term change is by necessity

implemented through a series of short-term changes. Also, the trigger event effect of immersion in wilderness could catalyze change. Therefore, the following hypothesis was tested: Participation in a nature-based training leadership transformation program increases authentic leadership.

To investigate whether the effects of the program are specific to authentic leadership, or whether these effects extend beyond the domain of leadership, the study examined personality traits as well. Personality traits are the most basic psychological characteristics of individuals (Goldberg, 1992). It is likely that a leadership training program has a larger effect on leadership attributes than on personality traits. Including personality traits in the measurement generates insight into the specificity of the training program and therefore increases the understanding of potential effects. Hence, the following hypothesis was tested: Changes in personality traits as a result of the program are of a lesser magnitude than changes in authentic leadership.

3.3 METHODS

3.3.1 Design

The present study adopted a natural experimental design, which is typically useful for studying relationships between phenomena that cannot be studied in laboratory settings (Bakker & Jacobs, 2016). The study applied a within-participants design and used longitudinal measures (i.e., the same survey to assess authentic leadership components before and after the intervention). The control condition was the level of authentic leadership before the training program, and the experimental condition was the equivalent level after the program, and hence, the effect was the within-participants change in authentic leadership. Assuming that other factors do not systematically co-vary between the conditions, cause-effect relationships can be inferred. Lack of control of potential covariates can be a possible weakness of natural experiments and can affect internal validity. On the other hand, external validity is a strength of natural experiments, as the problem of whether laboratory findings can extend to the complex real world does not exist.

3.3.2 Context

Data were collected during 2015 among participants of the Wilderness Leadership Transformation Program of the Foundation for Natural Leadership (FNL), based in The Netherlands. The program consisted of a four-to-six day wilderness trail with a group of five to seven participants, accompanied by one or two local guides and a certified FNL facilitator. The training program aimed to develop participants' "natural leadership" behavior and their regard for it, whereby the FNL description of "natural leadership" mirrors the construct of authentic leadership. The design of the trail provided the necessary conditions for full immersion in nature. Participants hiked in remote natural places without human-made facilities, carrying only backpacks with a sleeping bag and food. Trails were organized in remote wilderness areas in Europe (Switzerland, Spain and Ireland) and Africa (South-Africa and Botswana). Participants camped, walked in silence, experienced periods of solitude, and slept in the open air. In addition, the program facilitated self-reflection, the sharing of life stories and experiences, and one-to-one conversations. After the trail experience, each participant and the facilitator evaluated the event, and the commitments and intentions that had emerged. Finally, after two months, trail participants met to share how those commitments and intentions were put into practice.

3.3.3 Sampling procedure and sample

In 2015, the FNL organized 17 trail programs. All 107 participants in these programs, including leaders working in business, banking, and institutional and governmental settings, were approached to participate in the study. A researcher visited the training program introduction meetings to explain the data collection procedure to the participants and to guarantee anonymous and confidential treatment of their data. Two weeks before the wilderness experience, participants received an invitation by email to complete the web-based pre-event survey. Ten weeks after the wilderness experience and at the end of the entire training program, participants received a similar invitation to complete the post-event survey. One year later, participants were asked to fill out a delayed post-event survey. As short-term effects might fade away over time (Jacobs & Harms, 2011),

the delayed survey was needed to examine persistence of effects. Participants received two email reminders for the pre-event survey, and three reminders for the post-event survey and the delayed post-event survey. Of the training program participants, 89 (83%) completed the pre-event survey and 66 (62%) completed the pre- and both post-event surveys. Of the participants included in the analyses, 33% were female, and the mean age was 45 ($SD = 6.38$).

3.3.4 Variables

All three surveys contained the same scales. The 16-item Authentic Leadership Inventory (Walumbwa et al., 2007) was used to measure participants' leadership orientation. Specific formulations were converted to self-assessment items (e.g., "My leader is clearly aware of the impact he/she has on others" was transformed into "I, as a leader, am clearly aware of the impact I have on others") (see Table 1 for all items). Prior research demonstrated adequate reliability of the authentic leadership measures in the 16-item inventory (Neider & Schriesheim, 2011). Personality traits were measured with the 50-item International Personality Item Pool Big-Five Factor Markers (Goldberg, 1992). The measures in the personality inventory assess the so-called "Big Five" personality traits of emotional stability, extraversion, openness to experience, agreeableness, and conscientiousness. The scales are validated and frequently used (Costa & McCrae, 1992; Judge & Bono, 2000). All variables were coded on five-point response scales, ranging from 1 (strongly disagree) to 5 (strongly agree) with 3 as a neutral point. Additionally, both surveys included information on gender, age, trail destination, and date.

3.3.5 Analyses

Reliability analyses were used on the converted self-assessment scales to verify whether the associated items intended to measure one construct indeed had acceptable internal consistency, so that the items could be combined into composite variables representing the latent constructs. Paired sample *t*-tests were used to estimate differences in authentic leadership and personality traits within participants before and after the training program, and after one year. To address the increased chance of a Type I error due to simultaneous testing, the Bonferroni

correction (i.e., dividing the .05 *alpha* level by the number of simultaneous tests) was applied (Cabin & Mitchell, 2000). Cohen's *d* was used as the associated effect size statistic.

3.4 RESULTS

3.4.1 Reliability analyses

The internal consistencies of the self-assessment scales of internalized moral behavior (.68) and relational transparency (.67) were adequate (Table 1), based on the habitually accepted cut-off point of .65. The reliabilities of self-awareness (.59) and balanced processing (.59) were somewhat low. However, as Cronbach's *alpha* increases with the number of items, a value of .60 is considered acceptable for scales with only a few (e.g., four) items (Loewenthal, 2002; Schmitt, 1996). Deleting items would not substantially increase the value of *alpha* for any of the constructs (as indicated under "Alpha if item deleted" in Table 5). Therefore, composite indices were computed for each of the authentic leadership components as the means of the associated items. The composite indices were used for further analyses.

The internal consistencies for the personality traits were .85 for emotional stability, .79 for extraversion, .74 for openness to experience, .79 for agreeableness, and .72 for conscientiousness. Composite indices were computed for each of the personality traits and used for further analyses.

3.4.2 Changes in authentic leadership

The results of the pre-event survey show that, before the training program, participants were already oriented towards authentic leadership (Table 6). Still, all authentic leadership components increased after the training program.

Table 5. Reliability analyses of authentic leadership components

Authentic leadership component Item	Corrected item-total correlation	Alpha if item deleted	Cronbach's Alpha
Self-awareness			.59
I, as a leader, solicit feedback for improving my dealings with others.	.31	.57	
I, as a leader, describe accurately the way that others view my abilities.	.44	.47	
I, as a leader, show that I understand my strengths and weaknesses.	.38	.52	
I, as a leader, am clearly aware of the impact I have on others.	.37	.53	
Internalized moral perspective			.68
I, as a leader, show consistency between my beliefs and actions	.55	.55	
I, as a leader, use my core beliefs to make decisions.	.56	.57	
I, as a leader, resist pressures to do things contrary to my beliefs.	.39	.68	
I, as a leader, guide my actions by internal moral standards.	.40	.65	
Balanced processing			.59
I, as a leader, ask for ideas that challenge my core beliefs.	.41	.49	
I, as a leader, carefully listen to alternative perspectives before reaching a conclusion.	.41	.49	
I, as a leader, objectively analyze relevant data before making a decision.	.27	.61	
I, as a leader, encourage others to voice opposing points of view.	.42	.49	

Table 5. Continued

Authentic leadership component Item	Corrected item-total correlation	Alpha if item deleted	Cronbach's Alpha
Relational transparency			.67
I, as a leader, clearly state what I mean.	.63	.46	
I, as a leader, admit mistakes when they occur.	.35	.67	
I, as a leader, openly share information with others.	.31	.69	
I, as a leader, express my ideas and thoughts clearly to others.	.56	.53	

The effect sizes of all increases in authentic leadership components were in the range of .61 to .75, which can be qualified as effect sizes between medium and large (Cohen, 1988). These figures confirm the first hypothesis that participation in the program increases authentic leadership. Increases in authentic leadership persisted after the training program. Balanced processing increased during the year after with 0.31 ($t = 4.51, p < .001$); all other authentic leadership components were statistically equal for the post and 1 year-after measurements.

The increases in authentic leadership were not statistically different between sexes and between locations of the training program as estimated by independent sample *t*-tests.

3.4.3 Changes in personality traits

The change in four of the five personality traits was statistically significant (Table 7). The effect sizes of changes in personality traits changes were considerably lower than the effect sizes of changes in authentic leadership. These findings suggest that changes in personality traits were of a lower magnitude than changes in authentic leadership style, in line with the second hypothesis.

Table 6. Differences in authentic leadership components before and after training program

Authentic leadership component	Mean (SD) pre-training	Mean (SD) post-training	Mean (SD) 1 year after training	Difference pre – post	t-value	p-value	Cohen's <i>d</i>
Self-awareness	3.84 (0.56)	4.21 (0.48)	4.25 (0.56)	0.37	5.23	<.001*	0.71
Internalized moral perspective	4.26 (0.58)	4.63 (0.39)	4.58 (0.43)	0.37	4.83	<.001*	0.75
Balanced processing	3.92 (0.58)	4.27 (0.52)	4.58 (0.43)	0.35	5.81	<.001*	0.64
Relational transparency	4.25 (0.52)	4.56 (0.50)	4.56 (0.39)	0.31	4.67	<.001*	0.61

* Significant at the Bonferroni corrected alpha level of $.05/4 = .0125$.

Table 7. Differences in personality traits before and after training program

	Mean (SD) pre-training	Mean (SD) post-training	Mean (SD) 1 year after training	Difference pre – post	t-value	p-value	Cohen's <i>d</i>
Extroversion	3.56 (.58)	3.53 (.58)	3.53 (.58)	-0.03	1.23	.225	0.05
Agreeableness	4.20 (.53)	4.35 (.49)	4.35 (.49)	0.15	3.35	.001*	0.29
Conscientiousness	3.48 (.57)	3.66 (.51)	3.66 (.51)	0.18	3.36	.001*	0.33
Emotional stability	3.78 (.68)	4.05 (.67)	4.05 (.67)	0.27	4.00	<.001*	0.40
Openness to experience	3.96 (.43)	4.11 (.45)	4.11 (.45)	0.15	3.43	.001*	0.34

* Significant at the Bonferroni corrected alpha level of $.05/5 = .01$.

3.5 DISCUSSION AND CONCLUSION

The study's natural experiment offered evidence that all components of authentic leadership can increase within participants, following a nature-based training program. Moreover, the change did not fade away over time, as suggested by the delayed (1 year) measurement. Changes in psychological dispositions were predominantly specific to authentic leadership. In contrast, changes in personality traits were of a considerably lesser magnitude. Previous qualitative studies suggested that appropriate training programs could foster authentic leadership (Baron & Parent, 2015; Evans, Hess, Abdelhamid, & Stepleman, 2016; Roche, 2010). Importantly, the present study provided more robust evidence based on longitudinal measures, as recommended for testing the effectiveness of leadership interventions (Day, 2011).

The present study did not focus on whether the measured increases lead to better behavior. Yet, it is likely that leaders with an enhanced authentic leadership style will tend to behave in ways that respond to current leadership challenges, and in that sense could be called morally better leaders. However, the issue was not empirically addressed in the present study and thus requires further research.

The study extended current insights into leadership development. Previous research predominantly addressed specific outcomes of interventions, such as task performance, job satisfaction, or persuasiveness (see Avolio et al., Table 2, 2009a). In contrast, the present study makes a new contribution to the literature by demonstrating change in general authentic leadership style. Change in authentic leadership is much broader than change in specific outcomes, as it reflects leaders' overall orientation. The effect sizes for the changes in authentic leadership components were between .61 and .75. Remarkably, these effect sizes are similar to the average effect sizes reported in a meta-analytic study (.67 after removing outliers and correcting for sampling bias and measurement error) that analyzed experiments targeting specific outcomes (Avolio et al., 2009a). Generally, specific behaviors or dispositions are easier to change than more general ones, as the latter are more central to one's belief system or identity (Ajzen, 2005). The findings of the present study raise the question as to what aspects of the training

program fostered the increase in authentic leadership. Answering the question is important because it can provide clues about how to improve training interventions (Avolio et al., 2009b).

It is likely that the training program's participants' immersion in the wilderness influenced the change in leadership style. A lengthy stay in remote natural areas is a distinctive feature of the examined training program relative to other training programs that were investigated by other researchers. The interpretation of the present study's findings parallels those in the existing literature, demonstrating that nature experiences can have positive effects on a variety of specific mental dispositions of individuals, such as stress-reduction, self-awareness, and connectedness (Fredrickson & Anderson, 1999; Heintzman, 2009; Kaplan & Kaplan, 1989).

Additionally, the duration of the training program may partially explain the considerable increase in general authentic leadership orientation. A meta-analysis concluded that only 9% of the assessed studies exceeded seven days in duration (Avolio et al., 2009a). The median intervention length was 3 to 6 hours, while the modal intervention length was under 1 hour. The present study examined a training program of 4 to 6 days, with additional preparatory and evaluation meetings within a time frame of approximately 14 weeks. The majority of participants continued meeting each other once or twice a year afterward.

Furthermore, the program facilitated peer-to-peer interactions. Prior studies have demonstrated that peer learning is an effective form of learning (Clark & Dumas, 2015). Life story telling, which is a part of the investigated training program, is a technique that fosters peer learning (Shamir & Eilam, 2005; Sparrowe, 2005). Telling life stories enables leaders to reflect on their values and emotions, and provides anchor points from which leadership approaches and identities develop and grow (Turner & Mavin, 2008). As the present research context did not allow us to vary these features (i.e., immersion in nature, duration, peer-to-peer interactions) of the training program, future studies are needed to examine the merits of these explanations of the findings.

Self-report measurements have limitations that merit consideration when evaluating the findings. The information processing that was required to fill out

the questionnaires might make the participants' responses susceptible to bias (Diddams & Chang, 2012; Messick & Bazerman, 2004; Tice & Wallace, 2003), such as bias pertaining to inaccurate self-assessment or social desirability. As an example of a potential source of inaccuracy, participants may find it difficult to assess the impact they have on others, or to estimate how clearly they express their ideas and thoughts to others. Yet, findings are based on composite indices with adequate reliability and therefore less susceptible to bias in single items. Also, it is important to realize that the present study's results were based on comparing, within individuals, self-reports at three different points in time. If biases influenced the responses, it is likely that they influenced the responses similarly for all three questionnaires, and hence, the measured differences are likely to signify actual differences. Still, a potential form of social desirability bias might exist, as participants have invested in the training and might therefore be willing to present themselves as having changed. A follow-up study among employees of the participating leaders is currently being conducted in order to increase insight in bias due to investment.

The experimental design was applied to a complex, real-world situation. In addition, the sample consisted of 66 seasoned leaders working in business, banking, and institutional and governmental organizations. As the findings reflect the actual change in actual leaders after an actual training program, the present study provided evidence that a nature-based training program could foster change toward authentic leadership. As such, it could inform managers' choices of leadership development options for themselves and their followers.

CHAPTER 4

How episodic memories of a

wilderness-based

training program affect

leadership
style

ABSTRACT

The present research encompasses a qualitative analysis of interviews with 36 leaders who had participated a wilderness leadership transformation program in the past (on average six years before). The findings suggest that, at moments with emotional pressure and psychological stress, episodic memories of wilderness experiences are deemed to have a positive influence on actual leadership behavior. Experiences that refer to personal, important and emotion-laden moments often constitute episodic memories. Leaders' episodic memories of the wilderness-based training involved moments of solitude, a deeply felt connection with nature and peer-to-peer counseling. The interviewees frequently (often daily, mostly weekly) relived their emotion-laden wilderness experiences from the training program in tense work situations, providing them with direction and guidance. Moreover, the findings suggest that leaders' episodic memories of being immersed in nature have given rise to enduring transformation of leadership style. Participants perceived shifts in consciousness, more peace of mind, increased self-confidence and a stronger feeling of interconnectedness. In addition, the findings suggest that not only the emotion-laden character, but also the rehearsal of relived episodic wilderness memories may have contributed to the enduring leadership transformation process. This study could inform management decisions concerning leadership development options and designers of leadership transformation programs.

Keywords: *authentic leadership, leadership transformation, episodic memories, wilderness*

4.1 INTRODUCTION

A survey of 2,500 business and HR leaders in 94 countries suggested that broadening, deepening, and accelerating leader development was rated as important or urgent by 86 per cent of respondents (O'Leonard & Krider, 2014). Increasingly complex societies often present volatile and unpredictable operating conditions to leaders. In this context, scholars have been examining the capabilities needed for current leadership practices (Antonakis & Day, 2018; Baron & Parron, 2015; Day, Harrison & Halpin, 2009; Ibarra, Snook & Guilén Ramo, 2010).

Research has demonstrated that leadership interventions can have intended positive outcomes pertaining to leadership effectiveness (Avolio et al, 2009a; Collins & Holton, 2004; Day et al, 2014; Lord & Hall, 2005). Empirical studies suggest that outcomes include relevant capabilities as well as leader self-images in the forms of self-awareness, self-efficacy, and leader-identity (Day & Dragoni, 2015; Murphy & Johnson, 2011). While a large body of research reveals *that* leadership interventions have effects, the question of *how* these effects are brought about is important, as answers may explain differences across between and improve intervention designs.

The present study addresses the question in the context of a wilderness-based training program. Previous research on the same program suggests that peak experiences of hikes on wilderness trails triggered intentions to change future leadership behaviors toward authentic leadership (Van Droffelaar & Jacobs, 2017). A follow-up study used an experimental design with longitudinal measurements to test lasting intrapersonal change toward authentic leadership. The concept of authentic leadership emphasizes self-awareness, internalized moral perspective, balanced processing and relational transparency as key components of contemporary good leadership styles (Avolio & Gardner, 2005; Avolio et al., 2009b). All components improved following the wilderness-based training program to such extent that further research was merited. The findings demonstrate that the training program leads to changes in leadership style lasting at least a year (Van Droffelaar & Jacobs, 2018).

As a theoretical necessity, effects of training interventions are brought about through participants' memories. If training programs do not leave traces in the brains of participants, effects cannot occur. Building on this premise, the present study examines (a) the types of work situations that prompt participants to recall memories of a wilderness-based leadership training program, (b) what the content of those memories is, and (c) which leadership attitudes and behaviors are inspired by those memories.

4.2 LITERATURE REVIEW

4.2.1 Memory

The process of remembering implies the retention of information or other mental dispositions such as feelings (Bear, Connors, & Paradiso, 2016). In memory theory and research different types of memory have been distinguished: explicit (or declarative) memory and implicit (or non-declarative) memory (Kandel, 2006). Explicit memory is the memory of facts and events, referring to the conscious, intentional recollection of factual information, previous experiences and concepts (Schacter & Wagner, 2013). Implicit memory uses past experiences to remember things without thinking about them, and can influence thoughts and behaviors (Bear et al., 2016; Schacter, 1987).

Explicit memory is subdivided into semantic memory and episodic memory (Ryan, Hoscheidt & Nadel, 2008; Tulving, 2002). Semantic memory consists of knowledge and beliefs and is independent of contextual information, such as where the concept was learned (Clark, 2018). An example of semantic memory is the knowledge that an elephant is a mammal. In contrast, episodic memory incorporates the specific context of personally experienced events. Episodic memories typically include concepts regarding time and spatial representations (e.g., the personal encounter with an elephant in the Umfelozi river early that particular morning) (Hunsaker & Kesner, 2008). In day-to-day language, "knowing something" reflects semantic memory and "remembering something" reflects episodic memory.

Experiences are usually immediately forgotten; only some experiences and some aspects of those experiences become part of people's memory (Reisberg & Heuer, 2004). Episodic memory involves the recalling of the spatial-temporal context of the original, most often first-time, experience (Conway, 2005; Tulving, 2002). It is personal, emotional, imbued with detail, and involves 'players' and specific places (Ryan et al., 2008). Specifically, experiences that are emotion-laden constitute episodic memories (Clark, 2018; Hermans et al., 2014; McGaugh, 2002). Episodic memory often informs our sense of self, the meaning of our lives, and guides our decisions (McLelland, Schacter & Addis, 2015; Pillemer, 2003). Important life events are usually infused with emotion, both at the time of experience and in reminiscence (Ledoux, 1992; Phelps, 2004; Reisberg & Heuer, 2004). Remembrance of an emotional event (i.e., an episodic memory) in current situations often involves rich representations of the original experience (McLelland, Schacter & Addis, 2015; Tulving, 2002).

In addition, frequent repeated retrieval (rehearsal) of episodic memories enhances its patterns of accessibility, increasing the emotional and cognitive content of the events (Conway, 2009).

A striking feature of the biology of emotion-laden episodic memory is a dependence on the amygdala, a critical structure in emotional perception (Dolan, 2002). The role of the amygdala in episodic memory extends beyond coding processes, as evidenced by the fact that this structure is also involved in retrieving emotional items and contexts (Dolan, 2002; McLelland, Schacter & Addis, 2015; Phelps, 2004). Hence, the directive force of episodic memory is often potent when individuals are confronted with new situations that are structurally similar to the original episode recorded in memory (Kuwabara & Pillemer, 2010; Pillemer, 2003).

4.2.2. Wilderness experiences and episodic memory

It is likely that wilderness-based experiences have the potential to produce episodic memories. Research has indicated that wilderness experiences are conducive to heightened sensory awareness, peak and flow experiences and deep interpersonal interactions (D'Amato & Krasny, 2011; Frederickson & Anderson,

1999; Heintzman, 2009; Hinds, 2011; Van Droffelaar & Jacobs, 2017; Zelenski & Nesbit, 2012). Immersion in wilderness can induce high-impact, emotional experiences, and therefore has a strong potential to constitute episodic memories acting as significant life events. (Boniface, 2000; Csikszentmihalyi, 1990; Maslow, 1964; McDonald et al., 2009). In the current study, we therefore focus on episodic memories to examine the consequences of participation in a wilderness-based leadership training program. The following research questions are addressed:

- a) Which work situation characteristics did evoke the leaders' memories of wilderness experiences?
- b) What were the leaders' episodic memories?
- c) What did the leaders perceive as changes in their leadership style impacted by their episodic memories of wilderness events?

4.3 METHODS

We conducted semi-structured interviews with participants of a nature-based training program. Qualitative data are feasible for studying meanings in real world settings (Miles, Huberman & Saldana, 2014: pp. 11; Patton, 2002).

4.3.1 Context

Interviews were conducted amongst participants in the Wilderness Leadership Transformation Program of the Foundation for Natural Leadership (FNL), based in the Netherlands. The core of the program is a four-to-six-day nature-based training session in which participants are fully immersed in wilderness. Five to seven participants accompanied by one or two local guides and a certified FNL facilitator comprise training session groups. The training program aims to develop participants' "natural leadership" behavior. Participants hike in remote places without human-made facilities, taking with them a backpack with a sleeping bag and food only. Trails are organized in remote areas of Europe (Switzerland, Spain, and Ireland) and Africa (South Africa and Botswana). Participants camp, walk in silence, and experience periods of solitude.

The program facilitates self-reflection, sharing life stories and experiences, and one-to-one conversations. After the trail experience, each participant and the facilitator evaluate the event as well as the commitments and intentions that emerged. After two months, trail participants meet to share how those commitments and intentions were put into practice. Furthermore, over the years thereafter, ongoing group meetings, peer-to-peer counseling, and personal coaching are organized. During those sessions, memories of experiences are relived, and the effects of the training are discussed. The time format builds on suggestions that effective leadership development demands long-term trajectories (Cooper et al., 2005; Eich, 2008; Kets de Vries & Korotov, 2007).

4.3.2 Sample

A total of 36 participants were sampled from a file of 435 participants of FNL wilderness programs in the years 2006 to 2014. Purposive sampling was used to ensure a variety of respondents in terms of their occupation and time since participation. In the first stage, participants were grouped according to the number of years since participation. In the second stage, people with a variety of occupations were selected from each group, to include CEO's (14), business/departmental directors (11), entrepreneurs (4), banking directors (4), and consultants (3). The majority took part in programs in Africa (South Africa and Botswana, 32) and some in Europe (Alps and Ireland, 4). All selected participants were approached by email with a request to participate in a study into the impacts of their wilderness experiences. None of the respondents refused to be interviewed. The sample consisted of 8 women and 28 men.

4.3.3 Data collection

Interviews lasted between 40 and 60 minutes. Interviews were conducted at a place chosen by the respondent in order to provide a comfortable setting that would foster speaking freely. The majority of participants (34) chose their premises; two participants were interviewed over the phone as they lived abroad. The protocol consisted of an introduction stating the purpose and the course of the interview, basic interview questions (Table 8), a list of subsequent questions

designed to encourage the interviewees to speak openly without introducing a new subject (e.g., “Could you elaborate a little bit on this?” or “What do you mean when you say . . . ?”), and the end of the interview. The interviewees did not report having difficulties in understanding the questions.

Table 8. Interview questions

Component	Interview Question
Work situations	In which work situations do you revert to your wilderness experiences? How do you characterize these situations? What triggers you in work situations to recall your key wilderness experiences? How often do you recall your key wilderness experiences?
Episodic memories	What do you remember of your key wilderness experiences? How do you characterize these experiences? How important are these memories? To what extent are your memories laden with emotion?
Leadership style change	What has been the impact of your memories on your leadership style? How enduring is your leadership style change? What was the feedback of your environment?

Interviews were recorded and transcribed ad verbatim.

4.3.4 Analysis

Qualitative data analysis implies reducing the complexity of raw data into brief, descriptive summaries on an abstract level (Patton, 2002, p. 453). The process involves formulating concepts that represent the content of texts (Hsieh & Shannon, 2005), and subsequently assigning codes (representing these concepts) to quotes (distinctive sentences in de text). Our analysis comprised six steps. In the first step, each transcript was read and reread to get a good sense of the raw

interview material. The second step involved identifying 674 distinctive phrases or excerpts as expressing a discrete thought or idea. In the third step, each of the individual phrases was labeled with an initial open code, indicating the meaning of the phrase in terms of a summarizing abstract expression. As such, a first codebook was developed on the basis of a bottom-up, data-driven interpretation (semantic and substantial coding). A priori, we segmented the coding outcomes into the three theoretical concepts of work situations, memories and perceived changes. The fourth step entailed a revision of the initial codebook in several iterations. Initial codes and the underlying texts were compared, and eventually combined or subdivided. Iterations stopped when the revised codebook meaningfully and efficiently reflected the variety of work situation characteristics, episodic memories and perceived changes in leadership style. During the fifth step, each of the 674 phrases was coded using the final codebook. In the sixth step, an inter-coder reliability test was conducted in which two researchers coded a sample of phrases independently. κ was used as the statistical estimate of agreement between coders. κ 's were .71 for the work situations, .69 for the episodic memories, and .72 for the perceived changes in leadership style. The outcomes suggest "good" inter-coder reliability (in terms proposed by Landis & Koch, 1977).

4.4 RESULTS

4.4.1 Work situation characteristics that evoke memories

Situations evoking memories of the training program often involved one-on-one contacts with peers and followers. Especially, memories were relived in personal contacts during which emotions were rising. For example, in situations when a deadline had to be met. One interviewee responded in the following manner:

In fact, I automatically think back to the trail when more difficult situations arise at work in terms of relationships with my people or when anxiety arises in reaching an important milestone and people start making sounds of unrest and work pressure.

Aspects of work situations such as dealing with stressful situations, for example during difficult meetings, also often triggered memories of nature experiences. Interviewees mentioned situations of having to deal with opposition and negative feelings in the organization. For example, one interviewee responded: *“When I have a difficult meeting, where I have to persuade my people to accept new realities.”* Others mentioned situations in which they have to cope with high pressure and gaining overview. An interviewee said: *“When I come under great work stress and I am actively looking to put things into perspective”*.

In addition, interviewees reported their memories were triggered by certain types of challenging work situations. For instance, situations in which they had to prepare and give presentations in group meetings. A participant recalled the following situation:

For example, a big conference I had organized in America. And then I really wanted to do things another way. Really, the remembrance gave me the inspiration and courage.

Interviewees also relived memories at brainstorm sessions and at times when creativity was needed to explain complex issues. An interviewee said: *“Memories pop up in team sessions, looking at what is happening while brainstorming”*. Another responded: *“When preparing for important meetings, and telling my personal (trail)story, using metaphors”*. The characteristics of work situations that evoke memories all have in common that they include other people and tension. Memories of experiences from the training program were frequently recalled. About half of the respondents reported that they relived their wilderness experiences almost every day. The other half of the interviewees voiced they thought of the trail almost every week.

4.4.2 Episodic memory moments

Experiencing solitude was mentioned as a remembered moment during training by one third of the interviewees. Solitude experiences included, for example, reflecting on a rock near the river or sitting alone by the fire during night watch, while listening to all the sounds of the wilderness. One participant described a

moment that made a big impression:

I sat there at the campfire and all I had was my flashlight and I literally heard the lions roar. I didn't need anything else.

Another interviewee recalled an old tortoise coming up next to him during a 48-hour spell of solitude. The experience confirmed his firm decision to start his second company. In his words:

At one point I thought, "Yes, I know, I know what to do." And I opened my eyes and next to me was such a tortoise. With his 88-year-old head that looked at me and he nodded his head.

Feeling a connection with nature was another remembered moment mentioned by the majority of interviewed leaders. An interviewee recalled her moment as: "an overwhelming sunrise during night-watch and a rhino just ten meters away, all-in harmony". The interviewees experienced sharpened senses and being one with nature. Another interviewee responded in the following manner:

I was getting more and more ... Becoming one with nature, or at least I became open to it. My senses picked up more things. That is very beautiful.

When I was in that nature, I experienced how, on the one hand, I am incredibly small and invalid. But also how strong, in one way or another. Because I really felt I was part of nature.

Yet another interviewee recalled quietly waking up in a peaceful landscape. He reported seeing animals approaching. Importantly, he then realized that when one is quiet also people tend to open up. Again, another interviewee described two mountains that looked more or less like a gate, and how for him this image came to symbolize a gateway to something new. In his own words:

I see myself walking there, not so much sitting down, but I see myself struggling up the mountains there. I see a great many images. I see us walking and seeing two mountains that more or less form a gate – that painting hangs above my desk at home, a photo, enlarged – signifying an entrance to something new, vastness.

Peer-to-peer counseling (mentioned by some interviewees) refers to moments of sitting together in a circle and sharing experiences. Particularly, the emotional moments when they were sharing their life stories left indelible impressions. Through such experiences, interviewees came to the sudden realization that everybody is equal, and this put their own situation into perspective. In addition, these moments enhanced mutual trust between the participants. When asked what he remembered best, an interviewee responded:

But what also deeply moves me is the other person's stories. That also has some kind of relativizing effect on your own situation, not that the other is, everyone struggles with things, so to speak, that is. And the integrity with which they interact there, I found, yes, that makes a deep impression, that you create a space that is absolutely safe, and where you share your stories with each other in a setting of such a trail, that is, yes, that is purifying. That is cleansing.

Overall, all interviewees relived in great detail personal, important and emotion-laden moments from the wilderness-based training.

4.4.3 Perceived change in leadership style

Interviewees believed that their wilderness experiences had permanently influenced their leadership style. Perceived changes included a shift in consciousness, more peace of mind, increased self-confidence and more open interconnectedness with peers and followers.

Shift in consciousness entails an expanded, deeper awareness of what really matters, leading to a more open and more inclusive view of the world. They mentioned being more aware of the importance of the balance between humans and nature, and also of their influence on others. An interviewee expressed his shift in consciousness by saying:

So, then I realized that human beings and nature, this is what we are raised to believe, that we are enemies. Everywhere people come, it's at the expense of nature. And there I realized, you know, it can in fact be very beautiful. The balance between man and nature [...]. And yet another important insight, which is again deepened, is that we have a huge task as human beings, because

of course we live, as many animals live, at the expense of something else. And for my company? An even more explicit agenda for sustainability.

In addition, interviewees perceived that their ego had become less important to them.

In my leadership, since the trail, I have become more serviceable than I was before. And that is a process that is still evolving. So, you know that the ego moves to the background. Yes, others sometimes tell me that I am a better listener now.

Peace of mind refers to being in a mental state of calmness or tranquility. Training participants have experienced this state during the wilderness experience and the memory has stayed with them since. An interviewee mentioned: *“The silence and rest in the mountains have given me inner calmness, an earthed feeling”*. At stressful moments, leaders that had participated could retrieve memories of peaceful trail experiences, inducing a state of calmness and overview. For example, an interviewee had learned to incorporate moments of reflection in stressful moments, using his memory:

We hurried along until we saw the buffaloes, then we had time to spare of course. Those kinds of moments I still remember, they come up just like that. [...] But ... at times, I can really throw myself into things and start running things quickly, saying ‘hey, you’re not doing things right’. And it is difficult to switch off that mode. When I realize that I’m not doing thing right, then I go back to that feeling of rest, and then I come back from my pitfall.

Interviewees expressed an increase in self-confidence as they had more trust in their own abilities, capacities and decisions to face day-to-day challenges and demands. They deliberately take moments to reflect, rely on their intuition, and stick to their beliefs. As one participant responded:

In business, of course, and certainly in higher positions, you often have those dominant or narcissistic types, and then I did not dare anymore. And now, with the trail experiences in mind, I have something like: ‘Yes, but you know, I can

also say what I think'. So, then I noticed: 'Ah yes'. You know, it works. And that's just, yes, now I have the courage to speak up and see that other people are really interested in what I have to say.

Open interconnectedness refers to revealing one's real thoughts and feelings and deeply connecting with others. Interviewees noticed they chose to show their vulnerability more often. They also invited followers to be open and vulnerable. In addition, they were more able to sense what was going on, and to listen without judgment. An interviewee expressed his change in communication style by telling:

I talk about my feelings a lot more. And that has a huge impact. But now I realize how important space is for people, they instantly give you the space to do your thing. And I now have a much wider antenna; I have a lot more eye for a huge spectrum of signals.

Another leader told us he now met regularly with his management team, sitting in a circle and without an agenda. Instead of giving directions, he asked only two questions: What is going on here? And what is your advice for me? A different interviewee invites his people to go out for a walk when there is a real problem. Before the trail event he always chose the route, now he perceived himself much more as "the shepherd behind the flock".

A vast majority of interviewees reported that they had received positive feedback about their perceived change in leadership style from their peers and employees. As one of the interviewees expressed: *"Yes, from the moment I got back from the trail people said that I radiated a certain calm, a kind of anchoring and that I take moments to reflect."*

4.5 CONCLUSION AND DISCUSSION

This study examined which types of work situations evoked leaders' memories of a wilderness-based training program, which memories were relived and what changes in leadership style the leaders perceived. Thirty-six leaders were interviewed.

The results suggest that work situations that evoke memories of wilderness experiences can be characterized as involving tense personal contacts, stressful occurrences, and challenging moments. The situations all have in common that they include other people and tension. Related to this, in tense work situations, episodic memories are frequently (daily or at least weekly) relived in great detail as personal, important and emotion-laden moments. Especially, our study indicates that leaders' episodic memories of the wilderness-based training involve moments of solitude, a deeply felt connection with nature and peer-to-peer counseling. Accordingly, our results suggest that episodic memories of wilderness experiences are an inspiration for adequately dealing with challenging work situations involving peers and followers.

The present study shows that not only direct nature experiences, but also episodic memories of nature experiences, can be meaningful to individuals and in that sense be psychologically important. Hence, the present study makes a novel contribution to literature by demonstrating that, at moments with emotional pressure and psychological stress, episodic memories of nature experiences are deemed to have a positive influence on actual leadership behavior.

Furthermore, our results suggest that training participants view episodic memories of nature experiences as having an enduring impact on their attitude to leadership and their leadership behavior. In particular, leaders' episodic memories of wilderness experiences have given rise to enduring transformations of mental dispositions and leadership behavior: shift in consciousness, more peace of mind, increased self-confidence and a stronger feeling of interconnectedness. Notably, the interviewed leaders participated in a wilderness-based training program on average of six years before we interviewed them, and they still frequently recall their memories of it. So, the wilderness part of the

training program is very meaningful to them. As frequent repeated retrieval (rehearsal) of episodic memories enhances its patterns of accessibility (Conway, 2009), it seems likely that not only the emotion-laden character, but also the rehearsal of wilderness memories, may contribute to the enduring leadership transformation process.

The present study extends current insights into leadership development. Previous research predominantly addressed specific outcomes of interventions, such as task performance, job satisfaction, or persuasiveness (see Aviolo et al., Table 2, 2009a). Other research referred to what constitutes “critical life events” (transformative experiences that shape people’s lives) as antecedents for leadership development (Bennis & Thomas, 2002; Gardner et al., 2005; Lord & Hall, 2005). Most of these studies examined critical work situations that shaped leaders’ ability to lead others. In contrast, the present study makes a novel contribution to leadership literature by examining leadership transformation through leaders’ remembrance of their experiences in pristine nature, in which they had been radically removed from their comfort zone. Almost all leaders interviewed perceived their wilderness experience as a critical life event. Moreover, all interviewees reported that they thought that they had changed their attitudes and behavior as a result of their experience. Especially at important moments that require effective leadership capabilities interviewees indicated that retrieving episodic memories of meaningful wilderness experiences provided them with direction and guidance. In addition, findings of this study extend environmental psychological knowledge about impacts of being in nature, such as stress reduction (Bratman, Hamilton, & Daily, 2012; Kaplan, 1995; Ulrich et al., 1991), and restored attention (Berman, Jonides, & Kaplan, 2008; Cole & Hall, 2010). Our findings suggest avenues for future research. First, this type of qualitative research should be conducted with a wider population of leaders known to have had profound wilderness experiences. The sample of the present study only concerned leaders from organizations based in the Netherlands, which have a specific organizational culture, characterized as egalitarian and open (Hofstede, 2001). It would be interesting to see if research involving leaders from other countries, likely with other organizational cultures, will have different outcomes.

Second, interviewed leaders did not know each other before they participated in their wilderness-based training program. Thus, they had no common history. Future research should also focus on leaders who do know each other, such as whole management teams. Such wilderness trails with management teams are organized, so it is possible to conduct such a study. Third, it would be interesting to explore the impacts of leaders' participation in a nature-based training on employees, teams, and organizational outcomes.

In addition, a limitation of the current research is that the sample consisted of leaders who consciously made the choice to invest in their personal growth and leadership development by participating in a wilderness-based training program; in other words, people characterized by developmental readiness (Hannah & Avolio, 2010). Hence, findings cannot be blindly generalized as referring to all leaders. On the other hand, the leaders in this study are a subset of leaders who are open to personal growth and leadership development. It is hard to imagine how leaders who do not want to change can be motivated to better leadership. (Day & Thornton, 2018; George & Sims, 2007).

Finally, our study answered the call for more empirical, longitudinal research on transformational management education (Kets de Vries & Korotov, 2007). As such, it could inform management decisions concerning leadership development options and designers of leadership transformation programs. For instance, by incorporating in leadership curricula a guided stay in pristine nature with hikes, life-story sharing and moments of solitude.

CHAPTER 5

A serene sunset scene over a body of water. The sun is low on the horizon, casting a warm, golden glow across the sky and water. Silhouetted trees are visible in the background. In the foreground, a dark, curved object, possibly a chair or a piece of driftwood, is partially visible on the left side.

Conclusion and discussion

5.1 INTRODUCTION

Against the backdrop of the need for a shift in mindset among leaders to meet contemporary challenges, in this PhD project I examined the impact of a wilderness-based training program on leadership transformation. This thesis is based on three empirical studies that analyze leaders' experiences and ensuing intentions to change, measure the actual impact of the training program on authentic leadership, and examine the role of memories of experiences on their leadership style and changes therein. This thesis is based on a research design of a combination of qualitative and quantitative methods. From 2013 until 2018 I conducted a content analysis of 97 trail reports, tested 66 participants on leadership style change, and held 36 interviews with past participants. In this final chapter, I return to the main research question and discuss the research outcomes. Furthermore, I will reflect on the implications and limitations of this thesis and discuss some insights that could be useful for further research.

5.2 ANSWERS TO THE RESEARCH QUESTIONS

Five research questions were posed in order to investigate the impact of a wilderness-based training program on leadership transformation.

Research question 1

What did the leaders experienced during a nature-based training program?

Drawing on the analysis of 97 reports, written by participating leaders, Study 1 described their wilderness experiences: fascination for the beauty of nature, increased sensory awareness, feeling at one with nature and deep connection with one's self. Participants characterized their experiences with words such as "intense, a sudden realization, deeply moving, powerful, enormous feeling, elevating, being reborn". Further content analysis revealed four types of peak experiences: heightened sense of self, awareness of one's core values, deep

connected attention, and being fully present. Participants wrote that they had rediscovered themselves and their hidden convictions and values. Participants felt as if nature had anchored itself in their minds, especially “a sacred place,” where they had experienced their flashes of insight. In addition, participants experienced feelings of trust, of inner knowing and strong intuition.

Research question 2

Which intentions are triggered by leaders' wilderness experiences?

Study 1 revealed that being immersed in nature triggered intentions to change participants' leadership style: to be more aware of self, to live by an inner compass, to listen more carefully, and to become more transparent. Participants wanted to live and work more from their inner source, knowing their qualities and weaknesses. They intended to live by their core values and take time to reflect on them. They wanted to empower and develop their employees, expressing stewardship, humility, respect and authenticity. And finally, participants were willing to show their vulnerability, creating a much more open and sincere interaction. These intentions closely resonate with the core components of authentic leadership (Gardner, 2011; Walumbwa et al., 2007): Self-awareness, internalized moral perspective, balanced processing and relational transparency. In sum, the findings suggest that being immersed in nature can be experienced as a significant life event that has the potential to foster authentic leadership.

Research question 3

To what extent has authentic leadership increased after participation in a wilderness-based training program?

Based on a sample of 66 leaders, the experimental study tested intrapersonal change toward authentic leadership after participation in a nature-based training program that included a stay in remote wilderness without any facilities. The measurements in the study reflect the four core components of authentic leadership: self-awareness, internalized moral perspective, balanced processing, and relational transparency. The findings showed that all components of authentic

leadership were enhanced after participation. The effect sizes (estimated by Cohen's d) for the changes in authentic leadership components were between .61 and .75, which can be qualified as effect sizes between medium and large (Cohen, 1988). In contrast, changes in personality traits were of a considerably lesser magnitude, suggesting change was leadership style specific rather than encompassing general personality. Moreover, the change did not fade away over time, as suggested by the delayed (1 year) measurement.

Research question 4

Which memories of the wilderness-based training program do the leaders relive in their work situations?

Study 3 included a sample of 36 interviewed leaders, who had participated in a wilderness leadership transformation program in the past (on average six years before). The analysis of interviews revealed that the participants' episodic memories of the wilderness-based training entail moments of solitude, a deeply felt connection with nature and peer-to-peer counseling. The findings suggest that aroused work situations may trigger these, often detailed, episodic memories, which provide instant direction and guidance in their leadership behavior.

Research question 5

What changes in their leadership style do leaders perceive as influenced by their training experience memories?

Leaders indicated that reliving of their episodic memories helped make them more consciously present, gave them more peace of mind, increased self-confidence and a stronger feeling of interconnectedness. The findings suggest that interviewed leaders believe that their episodic memories of wilderness experiences have given rise to an enduring transformation of their leadership style. The findings suggest that not only the emotion-laden character, but also the rehearsal of relived episodic memories may have contributed to the enduring leadership transformation process.

5.3 DISCUSSION

5.3.1 Introduction

In this section, I will discuss the theoretical and empirical contributions of this thesis in relation to two strands of literature on leader development. First, after reiterating the context in which leadership finds itself today, I will discuss how a shift in the mindset of leaders can be fostered. Then, I will discuss the role of emotion in leadership development.

5.3.2 Fostering mindset shift in leaders

As I argued in the Introduction, contemporary challenges (e.g. distrust, pace of change, uncertainty, broader societal orientation) call for a shift in leaders' mindset, more than for improved competences, i.e. skills and abilities (skillset). How such a shift in mindset – a transformation of leadership style – can possibly be achieved is therefore an important practical and scientific question (Cooper et al., 2015; Day, 2000; Day & Dragoni, 2015).

The findings of Chapter 3 suggest that the studied nature-based training program does foster more authentic leadership. This is an example of a shift in mindset, as the components of authentic leadership, rather than learning a particular skill, reflect changes in thought and behavior: a clear self-concept, focus on moral standards, beliefs and values, an empathetic listening attitude, and openness and honesty towards others. The present research offers some clues to start contemplating possible answers to the question of how to foster a shift in the mindset of leaders.

The known attributes of wilderness experiences was one of the reasons for expecting changes in leadership style. Participants frequently and spontaneously described wilderness experiences in their trail reports, often in words that can be interpreted as peak experiences. Moreover, participants themselves related peak experiences in wilderness to intentions to change leadership behaviors. In addition, during the interviews participants frequently referred to memories of specific wilderness experiences and often believed these specific memories had affected their leadership style. Of course, self-report data should be appraised

critically when it comes to drawing inferences about how effects are brought about, as the way people perceive how things work might be different from how things actually work, and as people are not always necessarily honest. Yet, for some findings it is hard to imagine that self-reports produce artifacts, such as the finding that leaders often recall episodic memories reflecting intense nature experiences when they face challenges at work.

Kaplan & Kaplan (1989) have suggested four characteristics of environments that could contribute to attention restoration and stress reduction. ‘Being away’ implies being in a place that does not remind people of their daily life. ‘Soft fascination’ means that scenes are interesting enough to pay attention to, yet easy to understand so they do not require intense cognitive/perceptual processing, thus creating room for reflection. ‘Compatibility’ reflects that people often feel at ease in nature; compare, for instance walking on a path in the woods with walking in a busy shopping street. ‘Extent’ refers to the experience that there is more to the world than what people’s daily-life experiences and feeling connected with something bigger. While a shift in leaders’ mindset is not the same as stress reduction, many of the participants’ statements about nature experiences echo these properties. Diaries suggest feelings of being disconnected from the daily world (being away), experiencing involuntary attention (soft fascination) and feeling at one with nature (compatibility and extent). Apparently, then, the effects on people of restorative environments, as Kaplan & Kaplan have labelled it, are not limited to stress-reduction. Perhaps, these environments foster more general positive benefits, including stress-reduction, but also a positively experienced reflection on and a shift in leadership style. Both the report study (Chapter 2) as the interview study (Chapter 4), however, suggest that next to these experiences, peak experiences are important to participants and deemed consequential to their leadership behavior. Literature indeed posits that peak experiences in natural environments are associated with changes in thought and behavior (Smith et al., 2011; Boniface, 2000; Higgs and Rowland, 2010). Wilderness experiences, then, might foster shifts in mindset, as these provide experiences of being away, soft fascination, compatibility, extent, *and* peak experiences. Future research is needed to test whether this reasoning holds true. Also, it would be useful to

examine whether these characteristics can be found in other settings as well. After all, Kaplan and Kaplan (1995) stated that the characteristics of a restorative environment are not necessarily confined to nature settings, and research suggests that high-impact experiences are not limited to natural environments but might also occur during sports (Ravizza, 1977), while appreciating music and visual art (Panzarella, 1980), through artistic pursuits (Yeagle, Privette, & Dunham, 1989) and while practicing meditation and mindfulness (Brown & Ryan, 2003).

Another feature of a nature-based training program that may promote leaders' shift in mindset, is the occurrence of unfamiliar challenges. For example, the night-watch duties presented the challenge of being alone in an unfamiliar environment at night, and hiking in pristine nature implied an unfamiliar physical challenge. The findings suggest that being able to cope with those new challenges fostered self-empowerment and increased trust. Consequently, leaders felt that other challenges, such as changing leadership behavior, could be dealt with as well. In addition, when they found themselves in decisive work situations, participants spontaneously recalled memories of challenging wilderness situations. These episodic memories fueled leaders' capacities to relive their shifted mindset and to act with more inner calmness, increased self-confidence and open interconnectedness with peers and followers. Existing literature conveys that completing challenging tasks in wilderness is associated with benefits for various aspects of people's self-image, including self-esteem, self-efficacy, and locus of control (e.g. Dawson, Friese, Tangen-Foster & Carpenter, 1988; Friese, Pittman, & Hendee, 1995). However, the challenging tasks reported in the literature are usually related to the building of survival skills in wilderness settings, such as gathering food and firewood, navigating and setting up shelter. In contrast, this thesis' unfamiliar challenges are characterized by a more intimate, reflexive interaction with the natural environment. Participants reported they had rediscovered their 'true nature' in stillness. Afterwards, as suggested by the interviews, they regularly felt this stillness inside, creating overview and insight, and radiating peace of mind. This mindset shift goes beyond the benefits of well-being and spiritual growth, which are more focused on the self than on others, as documented by research on nature and spirituality (Borrie & Roggenbruck,

2001; Heintzman, 2009; McDonald, Wearing & Ponting, 2009; Long & Averill, 2003; Stringer & McAvoy, 1992; White & Hendee, 2000). A fruitful area of future research would be to examine how, by what psychological mechanisms, unfamiliar challenges in a natural environment influence changes in leadership style. Perhaps, stronger feelings of empowerment and self-confidence are important mechanisms.

Furthermore, all participants engaged in peer-to-peer conversations promoting co-development of insights and reflection. Many participants believed that sharing stories and listening to the stories of others gave them more clarity about who they were, and thus allowed them to reflect and consider making changes. Sharing stories made leaders reflect upon their 'defining moments' in life, their values and emotions. Years later, participants still vividly recalled these moments of sharing and learning. Typically, both participants' written reports and interviews bear witness to the importance of personal stories. For one, sharing personal stories often triggers emotional experiences. Typically, emotions fuel the creation of meaningful memories, engagement with complex thoughts, or making decisions (Immordino-Yang, 2007). In addition, empirical research has demonstrated that peers, more than instructors, can act as mirrors of the self, and social interactions may promote co-development of insights and reflection (Clark & Dumas, 2015). Probably, the non-judgmental, confidential, and safe atmosphere of the setting supported this process. This interpretation matches theoretical assumptions that narratives might be conducive to leaders' shift in mindset (Avolio & Gardner, 2005; Shamir, Dayan-Horesh & Adler, 2005; Shamir & Eilam, 2005; Puente, Crous & Venter, 2007). However, future research is needed to examine this effect, for instance through experimental research that contrasts the presence and absence of storytelling in leadership training programs, other elements being the same.

Wilderness experiences, unfamiliar challenges, and sharing stories have in common that they foster experiential learning. Experiential learning implies using one's own experiences as a starting point (Kolb, 1984), and involves four stages: having or remembering experiences; reflecting on experiences, often in discussion with peers; forming insights and conceptualizations; and

experimenting on the basis of those new ideas (McCall, 2004; Thomas, 2009). A wilderness-based training program is more likely to nurture these processes than traditional programs such as classroom training. Traditional programs often rely to a bigger extent on formal learning, that is, knowledge-based learning through abstract texts. When it comes to changes in attitudes, values and beliefs, rather than pure knowledge, experiential learning is more effective than formal learning (Avolio, 2005; Day, 2010; DeRue & Wellman, 2009; Illeris, 2007; Nesbit, 2012). As qualitative research is usually not used for identifying cause-effect relationships, the above interpretation, relying on findings from reports and interviews, could be seen as speculative. Yet, in this study context, self-report measurements are perhaps more accurate than a standard interpretation would suggest. What participants perceive as a cause might become a cause just because they perceive it as such. For example, some participants perceived a specific wilderness experience as a defining moment, evoking thoughts, reflections and intentions, and subsequently recalled that moment during important events as a leader. By assigning this meaning to the experience, framing it as an important moment, and storing the memory as a tag that denotes rich associations and is connected to behavioral intentions, they made the experience a trigger for their mindset shift. Thus, the act of perceiving a cause-effect relationship can constitute a cause-effect relationship. Following this reasoning, as participants believe wilderness experiences, storytelling, and unfamiliar challenges change them as leader, it is highly likely that these indeed contribute to leadership style change.

5.3.3 The role of emotion in leadership development

In the results of particularly chapters 2 and 4, the emotional content of the experiences and memories stands out. When participants describe their peak experiences during the trail, they often do so in terms that suggest underlying emotions. Peak experiences are positive, emotionally and cognitively intense, stand out, and have the potential to fuel lasting change in subjects (Maslow, 1968). This appears from participants' descriptions of states of pleasure (experiences of emotion) such as feeling reborn and alive. They perceived a deeply moving feeling of the significance of carefully observing and listening to nature and to the other

participants, experiencing the pleasure of being in the ‘here-and-now’ (“...*I feel cleansed, reborn, quiet and incredibly strong...*”), and being able to be fully present (“...*really giving attention to the person, the thought, what it brings forward in all its senses, like in nature...*”). In addition, during the interviews, participants relived personal, important and emotion-laden moments, not seldom accompanied by tears in their eyes. Particularly at work in arousing contacts with peers and followers, situations from the trail, with a specific intra- and interpersonal meaning, are relived in great detail by interviewees. For instance, they recalled emotional moments such as an experience of solitude and feelings of a deep connection with nature (“...*an overwhelming sunrise during night watch and a rhino just ten meters away, all in harmony...*”).

In addition, the findings from Chapter 4 suggest that interviewed participants consider the emotional experiences to be particularly important in their change in leadership style. Participants described emotional experiences, such as becoming one with nature, feeling alone by the fire at night and emotionally sharing personal stories. They believed these emotional experiences had deepened their self-awareness, elicited more peace of mind, increased their self-confidence and had led to more open interconnectedness. For instance, feeling the overwhelming importance of nature, participants perceived that their ego had become less important to them (“... *you know, the ego moves to the background ... others sometimes tell me that I am a better listener now.*”). They said that the emotional experience of calmness and tranquility in nature had given them lasting peace of mind (“*The silence and rest in the mountains have given me inner calmness, a grounded feeling.*”). The emotional experience of open, candid and moving conversations has led participants to show their vulnerability more often to others in work situations (“*I talk about my feelings a lot more. And that has a huge impact.*”). Altogether, empirical support from this study suggests that emotional experiences may have consequences for leadership style change.

Emotions flag what is important and meaningful to us. Emotion theory and research presents mounting evidence that emotion has powerful influences on cognitive processing (Izard, 2009; Ledoux, 1996; Pessoa, 2008; Phelps, 2006), such as motivation (Izard, 2009), attention (Öhman, Flykt, & Esteves, 2001),

perception (Dolan, 2002), learning and memory (Kandell, 2006; Labar & Cabeza, 2006; Reisberg & Heuer, 2004) and attitude formation (Ajzen, 2005; Fishbein & Ajzen, 2010). In other words, emotions form a critical part of how, what, when, and why people think, remember, and learn. Typically, emotions associated with a past event, and having been tagged in the mind as important, can inform present feelings, thoughts, and actions (Pillemer, 2003). Hence, emotional experiences should be acknowledged as important means to provoke insights that may elicit change – learn new things, and change mental dispositions and behaviors. Research in other domains indeed suggests the importance of emotion in learning processes and subsequent memories evoking intentional or behavioral changes. For example, there is an emerging body of educational research on children and students arguing that emotional events can initiate and catalyze learning processes (Immordino-Yang & Damasio, 2007; Immordino-Yang, Darling-Hammond & Krone, 2019). So, there is merit in discussing the role of emotions in leadership, in terms of research, theory and practice. First, with regard to leadership itself, and second, important in the context of this thesis, in relation to leadership development.

Theoretical perspectives on leadership and affect have primarily focused on three running themes: leaders' displays of emotion and processes (e.g., contagion, emotional labor), emotion-related abilities (e.g., emotional intelligence; positive and negative affectivity) and the effects thereof on their followers, or groups of followers (Antonakis et al., 2009; Boyatzis, 2008; Gooty et al., 2010; George, 2000). In addition, meta-analytic reviews on leadership and emotion (Ashkanasy & Humphries, 2011; Gooty et al., 2010; Rajah, Song & Arvey, 2011) have been limited to the role that emotion plays in workplace settings (displays of emotion, abilities, effect on outcomes).

With little room for emotion, however, leadership development programs predominantly opt for cognition-based trajectories, and again, mostly in workplace/classroom settings (Day, 2011; Day & Dragoni, 2018; Gurjian, Halbeisen, & Lane, 2014; Kaiser & Curphy, 2013). A meta-analytical review of 200 empirical studies on the impact of leadership interventions (Avolio, et al., 2009a), suggesting a 66 percent probability of achieving a positive result, did not give any

clues whether emotional experiences played an educational role in leadership interventions. Neither did other meta-analyses (Collins & Holton, 2004; Powell & Yalcin, 2010; Taylor, Russ-Eft, & Taylor, 2009). In addition, a more recent meta-analysis of 335 samples (Lacerenza, Reyes, Marlow, Joseph & Salas, 2017) provided an estimate of the effectiveness of leadership training across a wide span of years (1951–2014) and organizations. Their analysis indicated that leadership training is effective at improving affective, cognitive, and skill-based outcomes. Thereby, the researchers suggested that the most effective training programs incorporate all three – cognition-based – delivery methods, i.e. information-, demonstration-, and practice-based methods, preferably conducted at a location that is on-site. Only in one sentence they mentioned that “future research should investigate whether affective content can improve affective results to a greater extent” (p. 1701). So, very little has been written about the role of emotions in leadership training and there is an inevitable lack of findings about the outcomes of using emotion concepts to guide research on leadership development. It leaves us with unanswered questions about how leaders may develop their leadership capacities through emotional experiences. This gives rise to the suggestion that perhaps the most fruitful way to innovate leadership development is to include emotion concepts to address root causes of learning in leaders.

The current discussion leads to conceptual and practical implications for understanding or improving the effectiveness of leadership development. One of the implications of the present thesis is that it illustrates the potential of emotion concepts in leader development. It not only gives clues that emotion plays a significant role in leader development, but also that, through relived emotions, development itself may persist over multiple years. This work could be the start of a theoretical understanding that could be used to assess and develop emotion-based leader development. In doing so, it opens new avenues for future research. One obvious direction for future research would be to examine the validity of the framework of emotion concepts for effective leader development. For example, does commitment to development-related goals, such as intended leadership style change, increase with a focused attention on emotional experiences and self-reflection? Furthermore, such research may

helpfully extend the developing research agenda associated with leadership and emotional intelligence, contagion, and emotional labor, to include the area of leader development in relation to emotion concepts.

Another more practical implication for Human Resource Development professionals and designers of leadership training programs is that incorporation of emotion concepts in training programs may play a significant role in leadership style change. An additional practical implication for HRD is to consider how organizational systems currently encourage emotional transparency by leaders. For example, HRD professionals might consider the extent to which engagement in emotional transparency is promoted among leaders within the work systems and processes of the organization, and how insights regarding emotion concepts are incorporated into organizational change initiatives.

5.4 LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

The present thesis has several limitations which should be considered when interpreting its results and contributions. These same limitations point towards important research directions, illustrating pathways future scholars might take in further investigating the central research problem of this PhD project.

In ideal circumstances, the presence of control groups would be preferred. However, initial designs of Study 2 and 3 to include control group samples of sufficient size were thwarted. Although attempts were made to install relevant control groups, the number of respondents in control groups was too small due to changes in positions of peers and followers within organizations.

In addition, self-report measurements such as the questionnaires used in Chapter 3 have limitations that merit consideration when evaluating the findings. Yet, it is important to realize that the findings in Study 2 were based on individual comparisons between self-reports at three different points in time. If biases influenced the responses, it is likely that they influenced the responses similarly for all three questionnaires, and hence, the measured differences are likely to

signify actual differences. Still, a potential form of social desirability bias may have been at play, for instance because participants had invested in the training and might therefore have been more willing to present themselves as having changed. Thus, a question that deserves future research attention concerns how followers evaluate their leaders before and after the leaders concerned have been on a wilderness leadership transformation journey.

Furthermore, the present thesis is leader-centric focusing on intentions and behavior of individual leaders. However, leadership involves a dynamic social interaction within a given situational context. The organizational context has not been part of this research. Hence, the influence of this context on the sustainability of changed leadership style requires further research. It could, for instance, be interesting to investigate to what extent the change of leadership style is appreciated in organizations that are dominated by millennials.

The present PhD research only examined leaders who deliberately wanted to change themselves. Thus, the samples are characterized by developmental readiness (Hannah and Avolio, 2010). Consequently, findings cannot blindly be generalized to all leaders. However, it seems conducive to start with those leaders with a propensity to learn from experience. When their leadership style change appears to be successful, these leaders may serve as role models (and are likely to be imitated) to the extent to which they are viewed positively by peers and followers (Ilies, Morgeson & Nahrgang, 2005). A theoretical foundation can be found in Frederickson's (2001, 2003) broaden-and-build model which suggests that a leader's positive capacities may be particularly contagious and create positive upward spirals in organizational learning and transformation. Yet, longitudinal, multi-level research is needed to test the validity of this thesis' findings and how leadership changes can influence alignment and commitment among followers.

The samples of the present dissertation only concerned leaders from organizations based in the Netherlands, which have a specific organizational culture, characterized as egalitarian and open (Hofstede, 2001). Future research, examining leaders from other countries, likely with other organizational cultures, might be an interesting avenue and is needed to check to what extent findings generalize across cultures.

Finally, the dissertation viewed the role of intervention settings holistically as the whole of nature environments. That is, the research context did not allow variation of different features of the training program, such as specific wilderness experiences, solitude, duration, peer-to-peer interactions. Future studies are needed to examine the merits of these explanations of the findings. Moreover, answering the question is important because it can provide clues about how to improve training interventions (Avolio, et al., 2009a)

5.5 KEY PRACTICAL IMPLICATIONS

The present thesis suggest that the studied wilderness-based training program has had an impact on leadership transformation. The research was not designed to examine the effects of specific attributes of the training program. Yet, the training program has specific characteristics that differ from standard training programs. Many of those characteristics are also explicitly mentioned in the interviews and reports by the participants as being important to them. In this final section, I will discuss seven key attributes of the examined training program and explain how each attribute could contribute to the development of better leadership. I will also propose suggestions as to how each attribute could be implemented, even in less intense training situations. In addition, I will indicate considerations for organizations to improve leadership in their management. These suggestions might be useful for corporate leaders and managers, developers of leadership training programs, as well as developers of curricula of Business School and MBA leadership programs.

First, participants in the examined training program formulated the purpose for which they wanted to participate in the program before it started. Defining goals is one of the key attributes at the beginning of the program. Leadership transformation is a process of personal growth, therefore careful formulation of personal purpose is important. Participants who are able to explicitly formulate their personal purpose, perhaps assisted in a coaching conversation, make a good start in terms of self-awareness, one of the components of authentic leadership.

Therefore, it is recommended that training designers build in that each leadership training starts with mapping and involving the personal goals of participants. Involvement contributes to commitment and may give direction to the entire training program. Similarly, organizations could consider having their managers formulate their purpose as a starting point for the formulation of strategic organizational goals. This could contribute to how meaningful these goals are to those involved, and thereby their personal commitment to achieve them.

The second attribute is the “letting-go” approach. At the start of the training all valuables, such as passports, watches and mobile phones are taken away. The intention is that the participants give up the possessions that symbolize their bond with property and the world in which they live and work. As a result, the participants become detached from their comfort zone and can become fully open to the new environment, the others and themselves. Being able to give full attention with pure intention is one of the most important conditions of authentic leadership (balanced processing). This could be applied to any training. The lesson that organizations could learn from this approach is, for example, to require prior to meetings that mobile phones are turned off and put in a box outside the meeting room.

Third, the ritual of the transition from the western world to the natural world (“indaba-in”) is an attribute of the examined training program. Reflecting on the moment that another world is entered with its own customs and rules makes participants realize that a different mindset and attitude is desirable. The new environment of the natural world requires their full attention and care for each other. In the ritual everyone is given the floor to share their state of mind at that time. This can then be taken into account during the course of the trail. In more conventional training situations, a starting ritual could be asking the participants: “With what feeling did you come here and how do you feel now? The lesson for leadership could mean that change can only succeed if all stakeholders are cared for and listened to (balanced processing). Furthermore, in business situations, it would be advisable to explain which customs and rules apply in the new situation. In addition, organizations could consider introducing this “checking-in” process into their corporate culture by making it a habit to do a brief “checking-in” at the start of each important meeting. It could prevent misunderstandings, such as

misinterpretation of body language or choice of words, and with that prevent the meeting from failing.

Fourth, the connection with nature is a central attribute of the researched training program. The findings of this PhD thesis suggest that immersion in pristine nature can be a great source of inspiration and can evoke peak experiences. Self-reflection then leads to new insights and future intentions. The intensity of the experiences leaves an indelible impression that, at moments that matter, turn out to be directional in leadership behavior. Whereas many leadership training courses are currently being given in classroom settings in conference centers, training development professionals could incorporate nature much more in the design of leadership training courses. Such programs do not necessarily have to take place in Africa for a week but can also be two- or three-day sessions in more nearby nature reserves. The venue is then preferably chosen in the midst of nature surroundings with room for long nature walks. It is important that the characteristics of the environments facilitate experiences of being away, soft fascination, compatibility and extent (Kaplan & Kaplan, 1989). In addition, organizations might consider having their strategic sessions and meetings of their leadership teams take place in natural environments more often. Leadership teams could build personal bonds and a culture of mutual trust during activities in nature, personal conversations and periods of reflection, altogether laying a sound foundation for developing future business strategies. This recommendation is supported by the claim of Cheruvelil et al. (2014). They suggest promoting activities, preferably in nature settings, that stimulate conversations about both personal and professional topics, which can successfully start, build, and maintain the kind of personal, trustful and professional bonds that are necessary for high-performing collaborative research teams.

Fifth, telling life stories was a feature of the training program. The findings of this thesis revealed that participants could recount stories of critical life events that shaped their life and ability to lead others. Life story telling promotes peer learning and enables leaders to reflect on their values and emotions, and provides anchor points from which leadership emerges and self-identity grows (Shamir & Eilam, 2005; Turner & Mavin, 2008). Autobiographical work, such as telling

one's story and journaling, increases self-awareness. In combination with the "talking stick council", which supports genuine listening and suspending judgement, it is a powerful technique to create personal bonds and mutual trust. This would promote relational transparency, another component of authentic leadership. It seems plausible that narrative interventions can also be applied other leadership programs. However, a safe, trusting environment is required with no time pressure and good coaching guidance.

The sixth attribute is being alone in nature for a longer period of time, evoking feelings of a deep connection with nature. The findings of this thesis indicated that the challenge of experiencing periods of solitude in pristine nature or being alone at night-watch posed an unfamiliar physical and emotional challenge. The leaders stated that these experiences had made a deep impression. The experience of being alone had made them realize the importance of taking ample time for self-reflection to create new insights (internalizing moral perspective). Moreover, they felt more self-confident and experienced more peace of mind. Leaders reported that after this experience they felt capable of dealing with other challenges as well, such as the challenge to change their leadership style to become a more authentic leader. Hence, incorporating extended periods of self-reflection in leadership training programs and leadership curricula of Business schools and MBA's seems to have merit. In this context, organizations could consider creating a climate in which it is possible to insert breaks during meetings in which team members can take the time to let issues sink in and reflect on them, for example by taking a short walk in silence.

The seventh and last attribute consists of ensuring a good transition from the natural world to the daily world. Because the participants come from a peaceful, balanced environment, the landing in the unpredictable, complex, volatile business world can be quite confrontational. Coaching conversations can help participants to handle this. These conversations are also important to further shape the new insights and intentions. Furthermore, participants are encouraged to consciously go into nature. It doesn't have to be wild nature. It can be a garden as well, as long as it is a place in which they can connect with nature again and again. Returning to this place, one gets to know it through all the different seasons

and see all subtle changes. A few hours per week, just being in this place, maybe with a notebook to write things down or make a drawing. But always focusing on the relationship with the place, allowing it to become alive, to be full of meaning. Being receptive and listening, and really sensing nature could leaders help remember their trail experiences and with that the importance of being attentive to others with pure intention, becoming a more authentic leader.

In addition, follow-up group meetings are held with the aim of helping each other remember the wilderness experiences and to support everyone's changes. Such follow-up initiatives could contribute to sustained leadership style change. This approach could also be applied in less intense training. Conventional leadership training is usually a one-off event, without a follow-up program. It would be advisable for designers of leadership programs to devote more attention to the anchoring and implementation of the insights and intentions obtained by providing follow-up coaching and facilitating peer-groups. Also, organizations could consider providing an additional internal coaching program if their managers follow a leadership training program.

Finally, leadership programs that aim to foster reflection and personal development in the service of leaders' development are increasingly popular within MBA curricula and executive education portfolios. Congruent with this emerging consensus, is a growing interest in innovative educational approaches. Outdoor expeditions and adventure leadership activities are being experimented with in a variety of organizations, including at NASA for training and building trust in astronaut teams (Meyers & Dole, 2020). In response, the aforementioned key attributes of the examined training program could be a valuable resource for catalyzing ideas for innovations in the way leadership education is set up in Business schools and MBA's.

At the end of this thesis, I hope that with this PhD project I have contributed to understanding how, especially in these challenging times, leaders can develop into leaders who are optimistic, inspiring, authentic, show integrity, take care of others and are able to reflect on themselves.

A wide, calm river flows from the foreground towards the background. The water is a light brownish-grey color. In the distance, a dense line of green trees and foliage covers a hill. The sky is filled with large, white, fluffy clouds against a blue background. The word "References" is centered in the middle of the image in a brown, serif font.

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Summary

Samenvatting

Acknowledgements About the author

SUMMARY

Nowadays, organization leaders face challenges that demand more than just development of leadership competences. Scholars and practitioners have argued that, at a more fundamental level, a shift in leaders' mindsets is required. However, leadership development is still largely based on cognition-based learning aimed at improving skillsets. In addition, in leadership literature there is a relative dearth of conceptual and experimental exploration of conditions and design features that provide novel appropriate intervention settings, conducive to a shift in leaders' mindset. In this thesis, I aim to address this gap by analyzing the impact of a wilderness-based training program on leadership transformation.

Many factors have influenced scientific interests in leadership, from world affairs and politics to the perspectives of the discipline in which the subject is studied. As a logical continuation in the history of leadership theory, scholars have argued that a new perspective on leadership is necessary. They have conceptualized authentic leadership as an answer to the call for contemporary requisite changes in the mindset of leaders. Authentic leaders are guided by sound moral convictions and act in concordance with their deep-rooted beliefs and values, fostering greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency. In addition, scholars have tried to provide scientific insight into the development of authentic leadership, that is, *how* the core components of authentic leadership may develop within leaders. The present dissertation makes a new contribution to the literature by investigating interventions in natural settings that may shift leaders' mindset towards a more authentic leadership style.

Various scholars suggest that "critical life events", that is, trigger events that shape people's lives, are probably an important antecedent of authentic leadership. Furthermore, research suggests that experiencing nature may lead to positive psychological effects. Typically, peak experiences in nature settings may act as trigger events constituting a 'transitional space' facilitating moments of self-

focused attention, self-reflection, narrative processes with peers and opportunities to sharing life stories, fostering intrapersonal change. Based on this, I claim that spending time in nature could act as an appropriate trigger event that may facilitate leaders' shift in mindset.

This leads to five research questions: (1) *What did the leaders experience during the wilderness-based training program?* (2) *Which intentions are triggered by leaders' wilderness-based experiences?* (3) *To what extent has authentic leadership increased after participation in a wilderness-based training program?* (4) *Which memories of the wilderness-based training do the leaders relive in their work situations?* (5) *What changes in their leadership style do leaders perceive as influenced by their training experience memories?*

To address the research questions, I examined the impact of a wilderness-based training program on leadership transformation. The training program entails a four- to six-day wilderness trail with a group of five to seven participants, completed with one or two local guides and a certified FNL facilitator. Participants go into wild, remote natural places in Switzerland, Ireland, South Africa and Botswana, without human-made facilities, go hiking every day, bringing only a backpack with a sleeping bag and food. Besides camping, walking in silence, periods of solitude and sleeping under the stars, there is ample time for self-reflection, telling life-stories, one-to-one conversations and sharing experiences with the group.

The thesis is based on three empirical studies that 1) analyze leaders' experiences and resulting intentions to change, 2) measure the actual impact of the training program on authentic leadership, and 3) examine the role of memories of experiences on their leadership style and leadership style change.

The first study, described in Chapter 2, used a sample of 97 senior leaders. Content analysis was used on trail reports made by participants of a wilderness-based leadership program. Participants were asked to write personal reports

about their wilderness experiences, and related behavioral intentions. Analyses revealed four categories of leaders' peak experiences: heightened sense of self, awareness of one's core values, deep connected attention, and being in full presence. These peak experiences triggered intentions to change future leadership behaviors: to be more self-aware, to live by their inner compass, to improve careful listening, and to become more transparent. These intentions closely resonate with the core components of authentic leadership, namely self-awareness, internalized moral perspective, balanced processing, and relational transparency.

The second study (see Chapter 3) involved a sample of 66 leaders. The experimental, quantitative study tested intrapersonal change toward authentic leadership by measuring before, immediately after, and 1 year after leaders' participation in a wilderness-based training program, using standardized and previously tested authentic leadership scales. All components of authentic leadership – self-awareness, internalized moral perspective, balanced processing, and relational transparency – increased with medium to large effect sizes ($d \approx .7$). Changes in general personality traits were of a lower magnitude, suggesting that change was specific to authentic leadership, rather than extending into general psychological characteristics. The findings demonstrated that immersion in wilderness may well be conducive to change in leadership style and could be considered as a strategy for fostering leadership change.

Study 3, described in Chapter 4, used qualitative analysis of interviews with 36 leaders who had participated in the wilderness-based leadership transformation program in the past (on average six years before). Leaders' episodic memories of the wilderness-based training program involved moments of solitude, a deeply felt connection with nature and the peer-to-peer counseling sessions. The interviewees frequently (often daily, mostly weekly) recalled their wilderness experiences from the training program in tense work situations, providing them with direction and guidance. Moreover, leaders felt that their episodic memories of wilderness experiences have given rise to enduring transformations of mental

dispositions and leadership behavior. The findings suggest that not only the emotion-laden character, but also the fact that they keep recalling these episodic wilderness memories, may have contributed to enduring leadership style change. In Chapter 5 I first answered the research questions and argued that the overall findings provide a basis to believe that each of the attributes of the wilderness-based training program (wilderness experiences, unfamiliar challenges, peer-to-peer learning, and narrative processes), in their interdependence, contributes to promoting shifts in participants' mindset, fostering leadership transformation. As participants believe wilderness experiences, storytelling, and unfamiliar challenges change them as leaders, it is highly likely that these attributes indeed contribute to changes in leadership style.

Second, in this final chapter I discussed the potential of emotion concepts in leader development. The outcomes of this PhD research do not only suggest that emotion plays a significant role in leader development, but also that, through relived emotions, this development itself may persist over multiple years. Another topic discussed in the final chapter are the academic implications of this thesis. This work could be the start of a theoretical understanding that could be used to assess and develop emotion-based leader development. I specifically address the ways in which my research can contribute to the existing debates on how organizations can strengthen their leader development endeavors.

Naturally, the present thesis has several limitations which should be considered when interpreting its results and contributions: there were no control groups of leaders not participating in the training program, part of the data come from self-report measurements, participants had joined the program precisely because they wanted to develop as leaders, and cultural differences. However, these limitations point towards important research directions, illustrating pathways future scholars might take in further investigating the central research problem of this dissertation.

Finally, the thesis' practical implications concern seven, more detailed, attributes of the examined training program, explaining how each attribute could contribute to the development of better leadership. The attributes could be a valuable resource to catalyze ideas for innovations in leadership education.

SAMENVATTING

Leiders van organisaties staan in deze tijd voor uitdagingen die meer vereisen dan alleen de ontwikkeling van leiderschapscompetenties. Volgens wetenschappers en praktijkmensen is bij leiders op een fundamenteeler niveau een mentaliteitsverandering nodig. Leiderschapsontwikkeling is echter nog steeds grotendeels gebaseerd op leren dat op cognitie is gebaseerd, dus gericht op het verbeteren van vaardigheden. Bovendien is er in leiderschapsliteratuur een relatief gebrek aan conceptueel en experimenteel onderzoek naar omstandigheden en ontwerpkenmerken van interventies die bijdragen aan een verandering van de mentaliteit van leiders. In dit proefschrift probeer ik deze kloof te dichten door te analyseren wat de impact is van een op wilderniservaringen gebaseerd trainingsprogramma op leiderschapstransformatie.

Veel factoren hebben de wetenschappelijke ontwikkeling van leiderschap beïnvloed, van wereldaangelegenheden en politiek tot de perspectieven van de discipline waarin het onderwerp wordt bestudeerd. Als een logische voortzetting in de geschiedenis van de leiderschapstheorie hebben wetenschappers beargumenteerd dat een nieuw perspectief op leiderschap nodig is. Ze hebben authentiek leiderschap geconceptualiseerd als antwoord op de huidige roep om noodzakelijke veranderingen in de mentaliteit van leiders. Authentieke leiders laten zich leiden door gezonde morele overtuigingen en handelen in overeenstemming met hun diepgewortelde overtuigingen en waarden, het bevorderen van meer zelfbewustzijn, een geïnternaliseerd moreel perspectief, evenwichtige verwerking van informatie en relationele transparantie. Daarnaast hebben wetenschappers aangedrongen op het verschaffen van wetenschappelijk inzicht in de ontwikkeling van authentiek leiderschap, dat wil zeggen hoe de kerncomponenten van authentiek leiderschap zich binnen leiders kunnen ontwikkelen. Dit proefschrift levert een nieuwe bijdrage aan de literatuur door het onderzoeken van interventies in natuurlijke omgevingen die de mentaliteit van leiders kunnen veranderen ten behoeve van een meer authentieke leiderschapstijl.

Verschillende wetenschappers denken dat ‘kritieke levensgebeurtenissen’, dat wil zeggen gebeurtenissen die het leven van mensen richting geven, waarschijnlijk een belangrijk antecedent zijn van authentiek leiderschap. Bovendien suggereert onderzoek dat natuurervaringen positieve psychologische effecten hebben. Doorgaans kunnen piekervaringen in natuuumgevingen fungeren als triggergebeurtenissen die een ‘overgangsruijnte’ vormen die de mogelijkheid biedt voor momenten van zelfgerichte aandacht, zelfreflectie, gesprekken met leeftijdsgenoten en mogelijkheden om levensverhalen te delen, waardoor intrapersoonlijke verandering wordt bevorderd. Op basis hiervan beweer ik dat tijd doorbrengen in de natuur een geschikte trigger kan zijn om de mentaliteitsverandering van leiders te bevorderen.

Dit leidt tot vijf onderzoeksvragen: (1) Wat hebben leiders ervaren tijdens het trainingsprogramma in de wildernis? (2) Welke intenties worden ingegeven door de wilderniservaringen van leiders? (3) In hoeverre is authentiek leiderschap toegenomen na deelname aan een op de wildernis gebaseerd trainingsprogramma? (4) Welke herinneringen aan de training in de wildernis herleven in de werksituaties van leiders? (5) Welke veranderingen in hun leiderschapsstijl ervaren leiders als beïnvloed door hun trainingservaringen?

Om de onderzoeksvragen te beantwoorden, onderzocht ik de impact van een georganiseerde interventie – een op de wildernis gebaseerd trainingsprogramma – op de transformatie van leiderschap. Het trainingsprogramma omvat een vier- tot zesdaagse wildernis-trail met een groep van vijf tot zeven deelnemers, aangevuld met een of twee lokale gidsen en een gecertificeerde facilitator van de Foundation for Natural Leadership (FNL). Deelnemers gaan naar ongerepte, afgelegen, natuurgebieden in Zwitserland, Ierland, Zuid-Afrika en Botswana, zonder door mensen gemaakte voorzieningen. Daar maken ze elke dag wandelingen, met alleen een rugzak bij zich met een slaapzak en eten. Naast kamperen, wandelen in stilte, periodes van eenzaamheid en slapen onder de sterren, is er voldoende tijd voor zelfreflectie, het vertellen van levensverhalen, één-op-één gesprekken en het delen van ervaringen in kringgesprekken.

Het proefschrift is gebaseerd op drie empirische studies die 1) de ervaringen van leiders en resulterende intenties om te veranderen analyseren, 2) de daadwerkelijke impact van het trainingsprogramma op authentiek leiderschap meten, en 3) de rol van herinneringen aan ervaringen op hun leiderschapsstijl onderzoeken en op verandering van leiderschapsstijl.

De eerste studie, beschreven in hoofdstuk 2, is gebaseerd op een steekproef van 97 ervaren leiders. Inhoudsanalyse werd toegepast op trail-rapporten gemaakt door deelnemers aan een wildernis-gebaseerd leiderschapsprogramma. De deelnemers werd gevraagd om persoonlijke rapporten te schrijven over hun ervaringen in de wildernis en aanverwante gedragsintenties. Analyses onthulden vier categorieën van piekervaringen van leiders: verhoogd zelfgevoel, bewustzijn van persoonlijke kernwaarden, diep verbonden aandacht en volledig aanwezig zijn. Deze piekervaringen leidden tot intenties om toekomstig leiderschapsgedrag te veranderen: meer bewust worden van het zelf, leven volgens het innerlijke kompas, beter luisteren en transparanter worden. Deze intenties resoneren nauw met de kerncomponenten van authentiek leiderschap, namelijk zelfbewustzijn, geïnternaliseerd moreel perspectief, evenwichtige verwerking en relationele transparantie.

Bij de tweede studie, beschreven in hoofdstuk 3, werd een steekproef van 66 leiders onderzocht. De experimentele, kwantitatieve studie testte de intrapersoonlijke verandering naar authentiek leiderschap door te meten voor, onmiddellijk daarna en een jaar na de deelname van leiders aan een op de wildernis gebaseerd trainingsprogramma, met behulp van gestandaardiseerde en eerder geteste authentieke leiderschapsschalen. Alle componenten van authentiek leiderschap (zelfbewustzijn, geïnternaliseerd moreel perspectief, evenwichtige verwerking en relationele transparantie) namen toe met middelgrote tot grote effectgroottes ($d \approx .7$). Veranderingen in algemene persoonlijkheidskenmerken waren van een geringere omvang, wat suggereert dat verandering specifiek was voor authentiek leiderschap, in plaats van zich uit te breiden tot algemene psychologische kenmerken. De bevindingen toonden aan dat

onderdompeling in de wildernis bevorderlijk kan zijn voor verandering in leiderschapstijl en kan worden beschouwd als een strategie om leiderschapsverandering te bevorderen.

Studie 3, beschreven in hoofdstuk 4, gebruikte kwalitatieve analyse van interviews met 36 leiders die in het verleden hadden deelgenomen aan het op wildernis gebaseerde leiderschapstransformatieprogramma (gemiddeld zes jaar eerder). De episodische herinneringen van de leiders aan het trainingsprogramma in de wildernis omvatten momenten van eenzaamheid, een diepgevoelde connectie met de natuur en de 'peer-to-peer-sessies'. De geïnterviewden herinnerden zichzelf regelmatig (vaak dagelijks, meestal wekelijks) hun episodische wilderniservaringen uit het trainingsprogramma in gespannen werksituaties en deze herinneringen gaven hen richting en ondersteuning. Bovendien waren leiders van mening dat hun herinneringen aan specifieke ervaringen in de wildernis hebben geleid tot langdurige verandering van mentale disposities en leiderschapsgedrag. De bevindingen suggereren dat niet alleen het emotionele karakter, maar ook de herhaling van episodische wildernisherinneringen heeft bijgedragen tot een duurzame verandering van leiderschapstijl.

In hoofdstuk 5 beantwoord ik eerst de onderzoeksvragen. De analyse van de algemene bevindingen leidt tot de stelling dat deze een basis vormen om te geloven dat elk van de kenmerken van het op de wildernis gebaseerde trainingsprogramma (wilderniservaringen, onbekende uitdagingen, peer-to-peer leren en narratieve processen) bijdraagt, in hun onderlinge afhankelijkheid, aan het bevorderen van verandering in de mentaliteit van deelnemers, waardoor leiderschapstransformatie wordt bevorderd. Aangezien deelnemers zelf geloven dat wilderniservaringen, verhalen vertellen en onbekende uitdagingen hen als leider hebben veranderd, is het zeer waarschijnlijk dat deze eigenschappen inderdaad bijdragen aan verandering in leiderschapstijl.

Ten tweede bespreek ik in dit laatste hoofdstuk het potentieel van emotieconcepten in de ontwikkeling van leiders. Dit proefschrift geeft niet alleen aanwijzingen dat

emotie een belangrijke rol speelt bij de ontwikkeling van leiders, maar ook dat, door herleefde emoties, de ontwikkeling zelf gedurende meerdere jaren kan voortduren. Bovendien bespreek ik de academische implicaties van dit proefschrift. Dit werk kan het begin zijn van een theoretisch begrip dat kan worden gebruikt om de op emotie gebaseerde ontwikkeling van leiders te beoordelen en te ontwikkelen. Ik ga specifiek in op de manieren waarop mijn onderzoek kan bijdragen aan de bestaande debatten over hoe organisaties hun inspanningen op het gebied van leidersontwikkeling kunnen versterken.

Uiteraard heeft dit proefschrift verschillende beperkingen waarmee rekening moet worden gehouden bij het interpreteren van de resultaten en bijdragen: gebrek aan controlegroepen met leiders die niet deelnemen aan het trainingsprogramma, metingen gebaseerd op zelfrapportage, ontwikkelingsbereidheid bij deelnemers en culturele verschillen. Deze beperkingen wijzen echter op belangrijke onderzoeksrichtingen voor toekomstige wetenschappers om het centrale onderzoeksprobleem van dit proefschrift verder te onderzoeken. Ten slotte hebben de praktische implicaties van het proefschrift betrekking op zeven, meer gedetailleerde, kenmerken van het onderzochte trainingsprogramma, waarin wordt uitgelegd hoe elk kenmerk kan bijdragen aan de ontwikkeling van beter leiderschap. Deze kenmerken kunnen een waardevol hulpmiddel zijn om ideeën voor innovaties te versterken met betrekking tot de manier waarop leiderschapsonderwijs wordt gegeven.

It is in man's heart that the life of nature's spectacle exists; to see it, one must feel it.

Jean-Jacques Rousseau
1712 - 1778

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ABOUT THE AUTHOR

Hubertus (Boy) van Droffelaar (February 27th, 1949, Zandvoort aan zee) graduated from high school (HBS-B) in 1967. Subsequently, he studied Chemical Engineering and Business Administration at Twente University, the Netherlands. In 1975, he started his career as Organization Consultant at the Organization Department of AkzoNobel, which later became Rijnconsult. In 1978, Boy became Business Development Manager at Akzo Consumer Products (ACP) and in 1980 he was promoted to become Commercial Director of Otarès, one of the operating companies of ACP. From 1983 onward Boy was Managing Director at Esdex, a technological company owned by Esmil and Vendex, specialized in waste treatment and management. In 1986, he became Managing Director of Lavold, a group of companies of Randstad Holding. His next position was President of Douwe Egberts Coffee Systems, part of SaraLee Corporation. As from 1991, Boy fulfilled this role followed by various international executive positions within the ranks of SaraLee/DE. During his career he pursued his studies at London Business School, INSEAD-Fontainebleau and Wharton School of Management, USA. In his spare time, Boy chaired a group of primary schools and Het Baarnsch Lyceum. Furthermore, he was president of Round Table and Rotary, and he can be found rowing in an 'eight' on the river De Eem every week.

After his (early) retirement in 2008 he became Chairman of the Board of the Dutch Flower Council. The Flower Council of Holland is responsible for the promotion of flowers and plants to consumers the world over. In addition, after following an intensive Coach Training, he has been performing as certified Executive Coach. Currently, Boy is facilitator of Wilderness Trails at the Foundation of Natural Leadership (FNL). It became his passion to facilitate leadership transformation journeys in remote, pristine nature. By now, he has facilitated more than 12 wilderness trails in Africa and Ireland. During this work, he found that the theoretical underpinnings of the impacts of taking leaders into wilderness had scarcely been examined. Moreover, he did not find any empirical evidence suggesting that wilderness experiences may evoke changes in leadership

style. To his great delight, his research idea was well received by the Cultural Geography Group at Wageningen University & Research, and he became external PhD candidate. At present, Boy is dedicated to train new facilitators of the FNL, and to contribute to research into the effects of reconciliation efforts on human-wildlife conflicts.

The Impact of a Wilderness-Based Training Program on Leadership Transformation

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