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AUTHOR ANNIKKI KARINIEMI'S RELATIONSHIP WITH NATURE IN THE LIGHT OF PALMER'S MODEL

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Abstract

This study focused on influential northern Finnish author Annikki Kariniemi's life and relationship with nature. Analysis was based on autobiographical texts and journal articles, her exchange of letters archived by herself, contemporaries' interviews, and other documentary data, complemented by the author's hunting literature. The purpose of this research was to study relationship with nature as an interdisciplinary concept and contribute a lifespan-viewpoint to the development of relationship with nature that can enhance understanding the multidimensional nature of environmental awareness and education. Two research questions were set for the study (1) What are the main features of Annikki Kariniemi's relationship with nature? and (2) How did her relationship with nature change during her life? The study employed a micro-historical research approach and narrative autobiographical research method. Palmer's model of environmental education and learning was utilized as the framework for analysis. Relationship with nature is a changing process that can be influenced by education. It can be seen as an inter-disciplinary continuum including ecologic, aesthetic, sociological, psychological, ethical, and many other viewpoints.

Key words: *Annikki Kariniemi; biography; micro-history; relationship with the nature; environmental protection; nature protection; environmental awareness; Palmer's model.*

1. Introduction

When in the 1960s and 1970s, people were wondering how to prevent the "ecocatastrophe", environmental education was considered one important means [1]. Rachel Carson's work *Silent spring* (1962) is considered the initiator of the environmental discussion [2]. The book demanded measures to prevent an eco-catastrophe from the public authorities. In 1977, the UNESCO conference on environmental education defined the guidelines to curricula. According to these viewpoints, education has to be holistic and interdisciplinary [3]. It was applied as a cross-curriculum subject aiming at increased environmental awareness and sensitivity. Teaching was supposed to be holistic and include all different environmental aspects, such as social, political, economic, technological, moral, and aesthetic [3] [4].

Likewise, the emphases of environmental education have changed during the past few decades. "Sustainable development" and "biodiversity" have replaced concepts "nature" and "environment". Now, sustainable development is considered ecological, economic, social, and cultural sustainability, whereas biodiversity highlights not only the nature's diversity but also nature's processes [4].

The core concepts in this study are environmental education, environmental awareness, and relationship with nature. The theory of *environmental education* has been studied and illustrated by numerous models. Joy Palmer's model is based on the thought that an individual person's environmental awareness develops simultaneously at many levels. Palmer concludes that learning happens at three main threads that are *about* the environment, *in* the environment, and *for* the environment) [3].

Originally, environmental education was considered the task of day care centers and schools [5]. Little by little, it was started to see concerning the whole life span of a human being, as life-long growth. Likewise, the initial clear engagement to nature changed and various environments were included in education, such as cultural, economic, social, aesthetic, and ethical environment [6] [7]. Environmental education is now expected to offer sources of pro-environmental behavior, socialization for democratic skills and values, the development of a personal sense of competence, and the development of collective competence [8].

Basically, environmental education aims to ignite pro-environmental behaviors and, therefore, to influence positively individuals' relationship with nature [6] [9] [10]. However, the concept of "relationship with nature" is multidimensional and difficult to define [11] [12]. It can be analyzed from the point of view of environmental philosophy, aesthetics, psychology, and many other disciplines [13].

Palmberg has noted that the goal of environmental education was to evoke *environmental awareness* [14]. People who are environmentally aware know their environments, have positive attitudes and values as well as willingness and ability to work for environment. Several factors ignite a person's environmental awareness:

- personal nature-related experiences
- influence of significant people
- education
- personal importance of environmental issues [14].

Indeed, when it comes to environmental education, environmental awareness can be considered the key concept. Environmental awareness is closely connected to one's environmental identity and a sense of interconnectedness with nature [15] [16]. For example, one's perception of the connectivity to nature predicts environmental concern and behavior [17]. A study by Kollmuss and Agyeman implied that women are more concerned about nature than men, but also long education was connected to willingness to act in an environmentally-friendly manner [18]. Childhood experiences to connection with nature and environmental awareness are also shown important [12] [19] [20]. Hinds and Sparks's study showed that children who had grown up in rural areas had more positive orientations toward engaging with the natural environment than children growing up in urban surroundings [21]. In addition, the importance of environmental awareness to connection with nature can also be explained from the opposite perspective [22]: according to which environmental problems arise when people view themselves as being separate and distinct from the world around them or do not feel connection to the natural world [23].

In this study, environmental awareness is seen as the core of the *relationship with nature*. Every human being has his or her own relationship with nature that has developed within the influence of interconnected factors such as genetic factors, culture, society, and education [see e.g. 24]. Therefore, change in environmental behaviors necessitates cultural change, but also awareness of the influence and opportunities of one's own actions. Kollmuss and Agyeman use the concept *locus of control* to describe a human being's own conception of how he or she can influence matters [18]. A strong, intrinsic locus of control means belief in one's own abilities and opportunities to influence through one's own action. An extrinsic locus of control makes one believe that there is no reason to act responsibly because it does not have any effect [18]. A concept of *empowerment* used in environmental psychology also refers to increasing belief in one's own action, leading to intrinsic locus of control [25].

This study focused on influential northern Finnish author Annikki Kariniemi's life and relationship with nature, which was viewed in the light of Palmer's model of environmental education and learning. It helped to find out the important periods in Kariniemi's life, their characteristics, and significance to her relationship with nature. Analysis was based on Kariniemi's autobiographical texts and journal articles, her exchange of letters archived by herself, contemporaries' interviews, and other documentary data. In addition, some of her hunting literature

was used as supplementary data to study how they illustrated the author's relationship with nature. The purpose of this research was to study relationship with nature as an interdisciplinary concept and contribute a lifespan-viewpoint to the development of relationship with nature that can enhance understanding the multidimensional nature of environmental awareness and education.

2. Who Was Annikki Kariniemi?

Author Annikki Kariniemi (1913–1984) was born in Rovaniemi, northern Finland. The location of the author in Finland is crucial for understanding her viewpoint and contribution. Traditionally, the Finnish concept of wilderness refers to forest-covered areas for hunting and fishing, and the appreciation of Finnish wilderness started to rise at the end of the nineteenth century, and, during the 1960s and 1970s, nature activists began to increasingly emphasize wilderness values [26]. In Finland, the value of northern wilderness has for a long time been defined as a contrast to South [27]. All wilderness areas in Finland are located in Lapland and controlled by the Finnish Forest Administration [28].

Kariniemi was from a white-collar worker family; her bohemian agronomist-father did miscellaneous office work while her mother took care of the growing family. When Annikki was 11 years old, her father died and the family was in straitened circumstances having to turn to their relatives. Annikki's elder sister had graduated as a teacher and had a post in Rovaniemi, and she could provide home for their mother and younger siblings. Although Kariniemi's family had to live in economic difficulties, children were educated within the realms of possibility. Annikki went to secondary school and entered work life after that as a salesperson in a liquor store, as a typist at the Lapland Border Guards, and later as a substitute teacher in small villages in Lapland and Kuusamo regions in northern Finland.

Kariniemi was married three times, and since 1979, she lived alone in a small village called Törmäsjärvi in western Lapland. The first marriage with a Kuusamo farmer's son, Viljo Alatalo, was short (1938-1940), while the second time she got married was with a considerably older man, Oiva Willamo near the end of the Second World War in 1944. Her third husband (1936-1979), Taisto Heikanmaa, was much younger than Annikki.

Annikki Kariniemi's author career begun officially in 1952 when her book *Poro-Kristiina* [Reindeer-Christina]. The powerful description of a northern-Finnish woman's life was nicely welcomed and, soon, the book was reprinted. Kariniemi's following book represented hunting literature and was, as such, significant that the author was the first Finnish woman to enter this masculine turf of wilderness literature. During the following decades, several books about wilderness and hunting were written by Annikki Kariniemi.

In all, Kariniemi wrote over thirty books including children and youth books, historical books, half-documentary books, memoirs, and essays on topical problems. She continued the tradition of Lapland Romanticism, but brought up another kind of Lapland, too—the mundane and hard-working in difficult circumstances. Nature is present in all Kariniemi's production. She has been described as the greenest of all greens before the green movement [29]. Her life seemed to move from the patriarchal conservatism to radical nature protection.

This study focused on the birth and development of Author Annikki Kariniemi's relationship with nature [30]. She was the first female authors of Lapland and a pioneering woman in the field of hunting literature in Finland. She broke the walls. Likewise, her journal articles about nature protection were powerful takes on environmental threats. Kariniemi participated in an environmental movement in Lapland at a time when men usually took care of common issues and formed the so-called fur cap delegations traveling to the metropolitan area of Finland. Kariniemi participated in movements against damming up the great rivers of Lapland for electricity production.

3. Method

Author Annikki Kariniemi's relationship with nature was studied through two research questions:

- (1) What are the main features of Annikki Kariniemi's relationship with nature?
- (2) How did her relationship with nature change during her life?

These research questions were addressed with the micro-historical research approach and narrative autobiographical research method. During her last years, Author Kariniemi wrote two autobiographical books: *Minä aina kompuroin* [I always stumble] (1980) described her childhood in Rovaniemi and *Ristisiipi* [Crossed wings] (1982) focused on her life in Lapland, Kuusamo, and her post-war period in Trollböle, in South-Finland. In addition, her hunting literature was studied for descriptions that tell about her relationship with fishing or hunting.

Autobiographical books and hunting literature are not Kariniemi's personal history as such, but stories that are composed according to certain literature structures and forms. However, the picture these books draw reveal how Kariniemi wanted to see her relationship with nature. In this study, the goal was to find the author's own narrative about relationship with nature in as an authentic and reliable form as possible. Issues that the author brings up and emphasizes were, thus, in this study considered more important than the so-called actual events. They were narratives that formed the core of narrative data in this research.

Narrative research represents an approach that focuses on narratives as ways of transmitting and constructing information [31] [32] [33] [34]. The relationship between research and narrative can be viewed from two main perspectives: the research data can be narratives, such as autobiographical narratives, but research also produces a narrative about the person from a select perspective [31]. Annikki Kariniemi's narratives can be seen to consist of childhood fairytales, parents' stories, text-book texts from school, journal and magazine articles, performances seen in theaters, movies, books, etc. The author's autobiographical narrative itself is a network of many other narratives, a social construction. Narrative identity, on the other hand, is a personal narrative of who one is and where one comes from [35].

When analyzing the data, Kariniemi's life phases were divided into three periods: childhood (the 1910s-1920s); hunter's time (the 1950s-1960s); and radicalism (the end of the 1960s-1984). These three periods were analyzed according to Palmer's model, which meant that Palmer's three dimensions, cognitive, affective, and conative, were dissected in the aforementioned periods in Kariniemi's life. Especial attention was focused on Kariniemi's sporadic meandering descriptions that were considered micro-narrative [cf., 36]. They were seen as *thick descriptions* as defined by Denzin [37]. The autobiographical data includes these sections in which the author as if stops and draws a more detailed and multidimensional picture of the happenings, simultaneously evaluating their meaning to herself.

The analysis of the development of Kariniemi's relationship with nature was complemented with documents about contemporary phenomena, friend authors' and artists' works, and the development of environmental protection movement. Obviously, Kariniemi followed her time and trends, and was influenced by the public discourses. She experienced a decrease in her personal status when divorcing Colonel Willamo in 1963 and marrying general worker Heikanmaa. Heikanmaa, who was about 30 years younger than Annikki Kariniemi, was sometimes unemployed and sometimes did all kinds of part-time jobs. Every now and then, Kariniemi was in economic trouble, especially, because she was not used to live economically. She learned about the position of the unemployed. In 1970, Kariniemi started to participate in discussion about the social exploitation of Lapland and migration to Sweden. Kariniemi's guestbook includes a poem written in 1973 and dedicated to Pablo Neruda. Global happenings worried Kariniemi. In her memoirs, she describes herself as a cosmopolitan whose roots are deeply in her own environment [38].

4. Results

The study focused on the cognitive, affective, and conative development of Annikki Kariniemi's relationship with nature during her childhood, hunter's period, and radicalism. The *cognitive dimension* consists of facts about nature and related phenomena. In childhood, Kariniemi learned this information at home in safe environment. Some of the information covered mystical and fascinating stories about fairies, omens, and angels. Kariniemi described how, in her childhood, her parents transmitted information in the form of stories and narratives; especially, her father's story-teller's talents were praised in Kariniemi's books. Her parents wanted to teach respect for nature and creatures. Teachings of home warned about dangers in nature. When Kariniemi went to school, her teacher ignited life-long thirst for knowledge about and interest in nature in her.

During her hunter's period, Annikki Kariniemi was an exceptional woman who participated in hunting trips, especially with her second husband Oiva Willamo. Already in childhood, she had been going to fishing with her father and siblings. Hunting was familiar to her already from her childhood home, and game made an important part of her family's living. As a hunter, Kariniemi needed information about animals' behavior, nature, and hunting procedures.

Cognitive development appeared during radicalism as her focusing on learning about ecology and ever-deepening environmental awareness. She seemed to become and live as a part of nature more powerfully during this period.

The *affective dimension* refers to learning in nature. The nature's cycle, change of seasons, various sensual experiences, and moments experienced in nature influenced Kariniemi. In her life, paths turned into "places of memory" [39] that she returned in her books after these places had already disappeared from nature. Likewise, camp-fires and living fire in general formed a significant part of Kariniemi's nature experience. As a hunter, she experienced hunting excitement, craving for catching and respect for game, even role-taking. When compared to Marwin's three category illustration of harvesters, sport hunters, and nature hunters [40], Annikki Kariniemi represented mostly the latter, because she was not forced to catch but the connection with nature and environment meant more to her. Later, during radicalism, Kariniemi put her soul strongly into the animals' world. She experienced empathy, joy, and sorrow with her animal friends. Nature's wild animals were also given human characteristics as she would give names to them and observe their lives daily.

The *conative dimension* focuses on the question of how to act for nature. Already in Kariniemi's childhood home, she learned to bear the responsibility for domestic animals. Her parents' moral education emphasized animals' right to decent treatment. In her books, Kariniemi discussed her ethical and moral views, such as how to treat the catch so that it does not have to suffer unnecessarily and how the war influenced the fishing and hunting culture. As Kemijoki River was dammed after the Second World War, natural salmon became extinct. Kariniemi put her soul into the salmon's destiny when describing its hopeless attempt to return its birthplace. She, for example, criticized in her youth book on damming of rivers, the cultural turning point introduced by the establishment of water power plants, and air and water pollution caused by man.

Kariniemi's thinking became radical in the 1970s and she entered the public discourse. At the end of the decade, she wrote articles in which she criticized on chopping down old woods and plans of damming the Ounasjoki River. She participated in movements against additional damming of great rivers of Lapland. Table 1 sums up the findings. The development of Annikki Kariniemi's relationship with nature is metaphorically called as "a nature trail".

Table 1. Author Annikki Kariniemi's nature trail

	Cognitive dimension	Affective dimension	Conative dimension
Childhood	Factual knowledge about nature Mythical knowledge Thirst for information	Sensations Cyclic time Places of memory	Responsibility Moral Ethics
Hunter's period	Knowledge about animals Skills, experiences Mythical stories	Craving for catching Hunting stories Empathy	Treatment of animals Extinction of natural salmon Cultural change
Radicalism	Biodiversity Ecological information Human being as a part of nature	Sensations Role-taking Humanizing	Nature protection Society Environmental movement

5. Discussion

A human being's relationship with nature is not born in a vacuum, but in interaction between culture and environment. In the 1990s, Palmer studied environmental educators' own experiences of the background factors influencing their relationship with nature in England [41]. This autobiographical analysis obtained information about events and factors that made the educators care for the nature and begin as environmental educators. The findings were interesting and clear. Childhood experiences in nature, playing outside and going to nature, as well as parents' and other close people's influence were crucial. The third most important factor was education provided at school. Likewise, Chawla interviewed environmental activists about their paths in nature protection [19]. Results corresponded with the factors noted by Palmer.

According to Chawla, commitment to environmental protection was strengthened by the following factors:

- childhood home located in the countryside, surrounded by woods, mountains, meadows, or lakes
- outdoor hobbies (e.g., paddling, trekking, bird-watching)
- family's interested in environment
- family's social activity for "doing the right thing"
- hobby groups, nature-related hobbies [19].

Annikki Kariniemi's childhood home was located in Rovaniemi, in a countryside-like environment. They had domestic animals that Annikki familiarized with quite early. Important waterways and fishing places were located near her home, Kemijoki and Ounasjoki Rivers. Korkalovaara Hill, where they collected brushwood and picked berries, was almost at the front yard of her home. Her family often went to nature, and usually, these were important trips for their livelihood (e.g., cloudberry picking), but sometimes, they went there just for fun. The life in Kariniemi's childhood home was close to nature, and already early, Annikki learned to perceive nature as a safe place that included, however, its own dangers. One just had to know how to prepare for them. Influential people for Kariniemi's relationship with nature were her parents and science teacher.

Kariniemi's family was in many ways socially active. Her father participated in societal issues and was a popular speech-giver and recitation performer. Her mother took children to religious

meetings of the Laestadian. Annikki Kariniemi acted as the chairperson of her school-time temperance society and belonged to the Rovaniemi amateur dramatics in her youth. She performed with pleasure and later spoke in many festive and parties, and was an interesting lecturer.

Annikki Kariniemi was interested in nature since her childhood. Nature was present in her production simultaneous as realistic and mythical, as an ecologic entity and a network of stories. She also humanized nature; birds were friends and dogs family members. Her relationship with nature seemed to be a logical continuum from her childhood empathy to adulthood nature activist, and, later on, to radical nature defender. The official nature protection movement and Kariniemi did not find each other until in the 1970s when she wrote articles for *Suomen Luonto* [Finnish Nature] magazine. However, she had tried already at the beginning of the 1950s publish her critical opinion on damming of the Kemijoki River.

This study was qualitative, autobiographical, and narrative by nature. The purpose was to transmit a reliable analysis of Annikki Kariniemi's relationship with nature. This was a challenging task, considering that her publications were written to imaginary readers in a certain time and place. The way of telling, thus, presented the contemporary literature tradition. The events described are not necessarily based on reality, but they do reveal the author's way of thinking and issues she has wanted to emphasize [cf., 42]. In this study, Palmer's model of environmental education appeared suitable analyzing framework, because it emphasized environmental learning and education simultaneously at multiple levels.

6. Conclusion

Environmental problems are complicated and global. It has become clear that they cannot be solved just by increasing knowledge. According to many studies, people want to work for environment, but do not do that in practice [43]. There are many explanations. Sociological research has noticed that people can have two natures: the one surrounding him or her closely and, as its opposite, the global nature somewhere far away. People are worried about the nature surrounding them while the global nature remains abstract and outsider [44]. Author Annikki Kariniemi's nature seemed to be local and turn into global as well. In her autobiographical book [38], she ponders future choices and threats referring at the very first lines to global warming and its consequences:

"...so that we would not be dropped like a hot brick to watch how the waters flood over our beautiful birthplace like in times of the Flood, but there would not be any ark to board." [38 p. 187]

Kariniemi had a strong, intrinsic locus of control [see 18], which is manifested in her articles and by her participation in environmental movements in Lapland, Finland.

The challenges of today's environmental education are more complex than ever. Having a direct contact with nature, walking in nature, and enjoying nature sensations can be, due to the change in people's life styles, more and more difficult: the connection does not emerge naturally [45]. On the other hand, it is worth remembering that sensations are not provided just by extreme phenomena, such as breath-taking landscapes or exalted water falls. Nature can be experienced through a beanstalk growing in a pot or a dandelion coming through blacktop. Pets provide far better contact with nature for children than specialties in any zoo.

Environmental education is successful when the learning environment is safe and adults encourage action for nature. Nature can offer experiences and empower so that one's self-confidence increases and one starts to believe in one's ability to influence one's life and through one's solutions at the global level [46]. Fragmented information, competitive information in the media, and unclear goals challenge teaching [see also 6].

Yet, when setting goals for environmental education, we enter a mine field, as Palmer put it [3 p. 83]. Everyone seems to have his or her own definition of sustainable development and the concept is eagerly referred to in speeches, however, lacking any content. Relationship with nature is

always connected to the historical situation and changes along trends, and thus, it is a societal phenomenon. Especially, when aiming at defining what nature is and to whom it belongs, we enter the political dimension of relationship with nature. Hauser-Schäublin used the concept of gatekeeper in this context [47]. Currently, in Lapland, a topical question is who defines a mining area: the international mining business, the state, or local residents?

Relationship with nature is a changing process that can be influenced by education. It can be seen as an inter-disciplinary continuum including ecologic, aesthetic, sociological, psychological, ethical, and many other viewpoints. Moreover, relationship with nature can be seen emotional [48], and an important concept for human happiness and well-being [49] [50]. Studies on personal relationship with nature can contribute important information and increase understanding about the ways of enhancing human being's environmental awareness—locally and globally.

References

1. Commoner, B. *Ympyrä sulkeutuu* [Transl. from *The Closing Circle. Nature, Man, and Technology*]. Jyväskylä: Gummerus, 1972.
2. Carson, R. *Silent spring*. New York: Houghton Mifflin, 1962.
3. Palmer, J. *Environmental education in the 21st century. Theory, practice, progress and promise*. London: Routledge, 1998.
4. Wolff, L.-A. *Ympäristökasvatus ja kestävä kehitys: 1960-luvulta nykypäivään* [Environmental education and sustainable development: from the 1960s to date]. In books.: *Ympäristökasvatuksen käsikirja* [Handbook of environmental education]. Under edition Cantell, H. Jyväskylä: PS-kustannus, 2004, 18-29.
5. Gurevitz, R. *Affective approaches to environmental education: Going beyond the imagined worlds of childhood? Ethics, Place and Environment*, 2000, 3, 3, 253-268.
6. Stevenson, R. B. *Schooling and environmental education: contradictions in purpose and practice*. *Environmental Education Research*, 2007, 13, 2, 139-153. doi: 10.1080/13504620701295726
7. Tilbury, D. *Environmental education for sustainability: defining the new focus of environmental education in the 1990s*. *Environmental Education Research*, 1995, 1, 2, 195-212. doi: 10.1080/1350462950010206
8. Chawla, L., Flanders Cushing, D. *Education for strategic environmental behavior*. *Environmental Education Research*, 2007, 13, 4, 437-452. doi: 10.1080/13504620701581539
9. Jensen, B. B. *Knowledge, action and pro-environmental behaviour*. *Environmental Education Research*, 2002, 8, 3, 325-334. doi: 10.1080/13504620220145474
10. Rickinson, M. *Learners and learning in environmental education: A critical review of the evidence*. *Environmental Education Research*, 2001, 7, 3, 207-320. doi: 10.1080/13504620120065230
11. Schultz, W. P. *New environmental theories: empathizing with nature: the effects of perspective taking on concern for environmental issues*. *Journal of Social Issues*, 2002, 56, 3, 391-406.
12. Schultz, W. P. *Inclusion with nature: The psychology of human-nature relations*. In books.: *Psychology of Sustainable Development*. Under edition Schmuck, P., Schultz, W. P. New York: Springer, 2002, 61-78.
13. White, R. *Young children's relationship with nature: Its importance to children's development & the earth's future*. White Hutchinson Leisure & Learning Group, 2004. (<http://www.childrennatureandyou.org/Young%20Children's%20Relationship%20with%20Nature-%20White.pdf>)
14. Palmberg, I. *Ympäristöpedagogiikka ja kestävä kehitys pohjoismaisissa tutkimus- ja opetusverkostoissa* [Environmental pedagogy and sustainable development in Nordic research and teaching networks]. In books.: *Ympäristökasvatuksen käsikirja* [Handbook of environmental education]. Under edition Cantell, H. Jyväskylä: PS-kustannus. 2004, 195-199.
15. Davis, J. L., Green, J. D., Reed, A. *Interdependence with the environment: Commitment, interconnectedness, and environmental behavior*. *Journal of Environmental Psychology*, 2009, 29, 2, 173-180.
16. Mayer, F. S., Frantz, C. M., Bruehlman-Senecal, E., Dolliver, K. *Why is nature beneficial? The role of connectedness to nature*. *Environment and Behavior*, 2009, 41, 5, 607-643.
17. Dutcher, D. D., Finley, J. C., Luloff, A. E., Buttolph Johnson, J. *Connectivity with nature as a measure of environmental values*. *Environment and Behavior*, 2007, 39, 4, 474-493. doi: 10.1177/0013916506298794
18. Kollmuss, A., Agyeman, J. *Mind the Gap: why do people act environmentally and what are the barriers to pro-environmental behavior?* *Environmental Education Research*, 2002, 8, 3, 239-260.

19. Chawla, L. Life paths into effective environmental action. *The Journal of Environmental Education*, 1999, 31, 1, 15-26.
20. Lyons, E., Breakwell, G. M. Factors predicting environmental concern and indifference in 13- to 16-year-olds. *Environment and Behavior*, 1994, 26, 2, 223-238. doi: 10.1177/001391659402600205
21. Hinds, J., Sparks, P. Engaging with the natural environment: The role of affective connection and identity. *Journal of Environmental Psychology*, 2008, 28, 2, 109-120.
22. Frantz, C., Mayer, F. S., Norton, C., Rock, M. There is no "I" in nature: The influence of self-awareness on connectedness to nature. *Journal of Environmental Psychology*, 2005, 25, 4, 427-436.
23. Kidner, D. W. Why psychology is mute about the environmental crisis? *Environmental Ethics*, 1994, 16, 4, 359-376. doi: 10.5840/enviroethics19941643
24. Ellis, R. J., Thompson, F. Culture and the environment in the Pacific Northwest. *American Political Science Review*, 1997, 91, 885-897.
25. Shellman, A. Empowerment and experiential education. A state of knowledge paper. *Journal of Experiential Education*, 2014, 37, 1, 18-30. doi: 10.1177/1053825913518896.
26. Hallikainen, V. The social wilderness in the minds and culture of the Finnish people. *International Journal of Wilderness*, 1995, 1, 1, 35-36.
27. Saarinen, J. Tourism in the northern wildernesses: Discourses and the development of nature-based tourism in northern Finland. In books.: *Nature-based tourism in peripheral areas: Development or disaster? Under edition Hall, C.M., Boyd, S. Clevedon: Multilingual Matters, 2005, 36-49.*
28. Ministry of the Environment. Erämaa-alueet [Wilderness areas in Finland]. Helsinki: Finnish Ministry of the Environment, 2013. (http://www.ymp.fi/fi-FI/Luonto/Luonnon_monimuotoisuus/Luonnonsuojelualueet/Eramaaalueet)
29. Ervasti, M.-L. Annikki Kariniemi – tasa-arvoinen tieteen tai tietämättään, vihreistä vihrein ennen ensimmäisen vihreän syntysanojakaan [Annikki Kariniemi – Consciously or unconsciously equal, the greenest of green before the green was even born]. *Kaleva*, 10.3.1988.
30. Tuominen, M. Mie elän tätä Lappia – Kirjailija Annikki Kariniemen luontosuhde ["I live this Lapland" – Author Annikki Kariniemi's relationship with nature]. Rovaniemi: Lapland University Press, 2013.
31. Hänninen, V. Sisäinen tarina, elämä ja muutos [Inner narrative, life, and change]. Tampere: University of Tampere, 1999.
32. Lieblich, A., Tuval-Mashiach, R., Zilber, T. Narrative research: Reading, analysis and interpretation. Thousand Oaks, CA: Sage, 1998.
33. Polkinghorne, D.E. Narrative configuration in qualitative analysis. In books.: *Life history and narrative. Under edition Hatch, J.A., Wisniewski, R. London: Falmer Press, 1995, 5-23.*
34. Riessman, C.K. Analysis of personal narratives. In books.: *Handbook of interview research: Context & method. Under edition Gubrium, J.F., Holstein, J.A.. Thousand Oaks: Sage, 2001, 695-710.*
35. Sava, I., Katainen, A. Taide ja tarinallisuus itsen ja toinen kohtaamisen tilana [Art and narrativeness as the space of encountering self and the other]. In books.: *Taiteeksi tarinoitu elämä [Life narrated as art]. Under edition Sava, I., Vesänen-Laukkanen, V. Juva: WS Bookwell, 2004, 22-37.*
36. Tanner, T. Significant life experiences: A new research area in environmental education. *The Journal of Environmental Education*, 1980, 11, 4, 20-24. doi: 10.1080/00958964.1980.9941386
37. Denzin, N.K., Norman, K. Interpretive biography. *Qualitative Research Methods series 17. London: Sage, 1989.*
38. Kariniemi, A. Ristisiipi [Crossed wings]. Helsinki: Otava, 1982.

39. Nora, P. Between memory and history: Le Lieux de Memoire. The Regents of the University of California, 1989, 7-24.
40. Marwin, G. Challenging animals: project and process in hunting. In books.: Nature and culture. Under edition Pilgrim, S., Pretty, J. London: Earthscan, 2010, 145-155.
41. Palmer, J., Neal, P. The handbook of environmental education. London: Routledge, 1994.
42. Wiseman, M., Bogner, F.X. A higher-order model of ecological values and its relationship to personality. *Personality and Individual Differences*, 2003, 34, 5, 783-794.
43. Steg, L., van den Berg, A.E., de Groot, J.I.M. Environmental psychology: An introduction. Oxford: John Wiley & Sons, 2012.
44. Valkonen, J. Lapin luontopolitiikka [The environmental policy of Lapland]. Tampere: Juvenes Print, 2003.
45. Mayer, F.S., Frantz, C.M. The connectedness to nature scale: A measure of individuals' feeling in community with nature. *Journal of Environmental Psychology*, 2004, 24, 4, 503-515.
46. Ewert, A., Place, G., Sibthorp, J. Early-life outdoor experiences and an individual's environmental attitudes. *Leisure Sciences*, 2005, 27, 3, 225-239.
47. Hauser-Schäublin, B. Von der Natur in der Kultur und der Kultur in der Natur [From nature to culture and culture to nature]. In books.: Natur – Kultur [Nature – Culture]. Under edition Brednick, R.W., Schneider, A., Werner, U. Münster: Waxmann, 2001, 11-20.
48. Kals, E., Schumacher, D., Montada, L. Emotional affinity toward nature as a motivational basis to protect nature. *Environment and behavior*, 1999, 31, 2, 178-202.
49. Nisbet, E.K., Zelenski, J.M., Murphy, S.A. Happiness is in our nature: Exploring nature relatedness as a contributor to subjective well-being. *Journal of Happiness Studies*, 2011, 12, 2, 303-322.
50. Nisbet, E.K., Zelenski, J.M., Murphy, S.A. The nature relatedness scale linking individuals' connection with nature to environmental concern and behavior. *Environment and Behavior*, 2009, 41, 5, 715-740.

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