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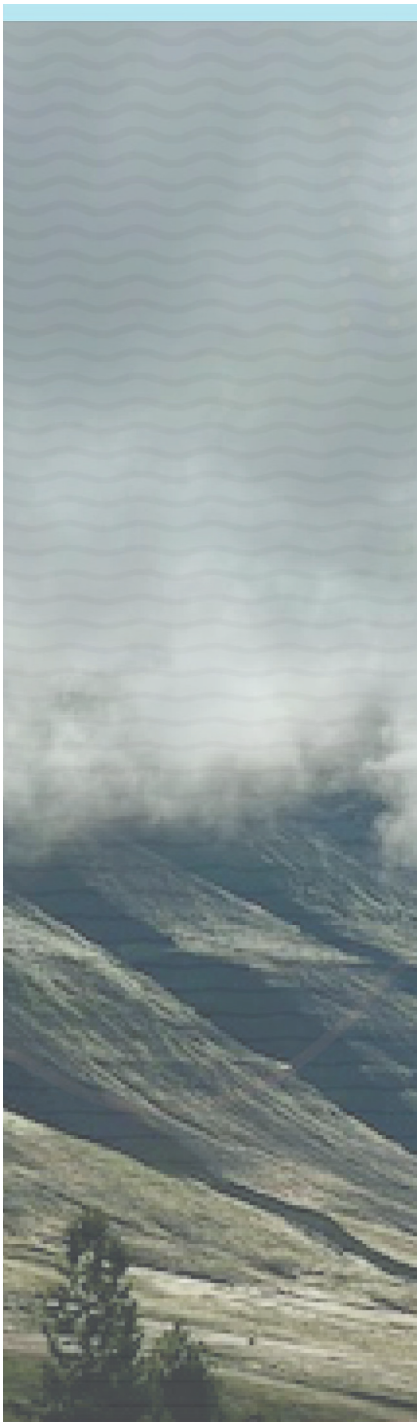
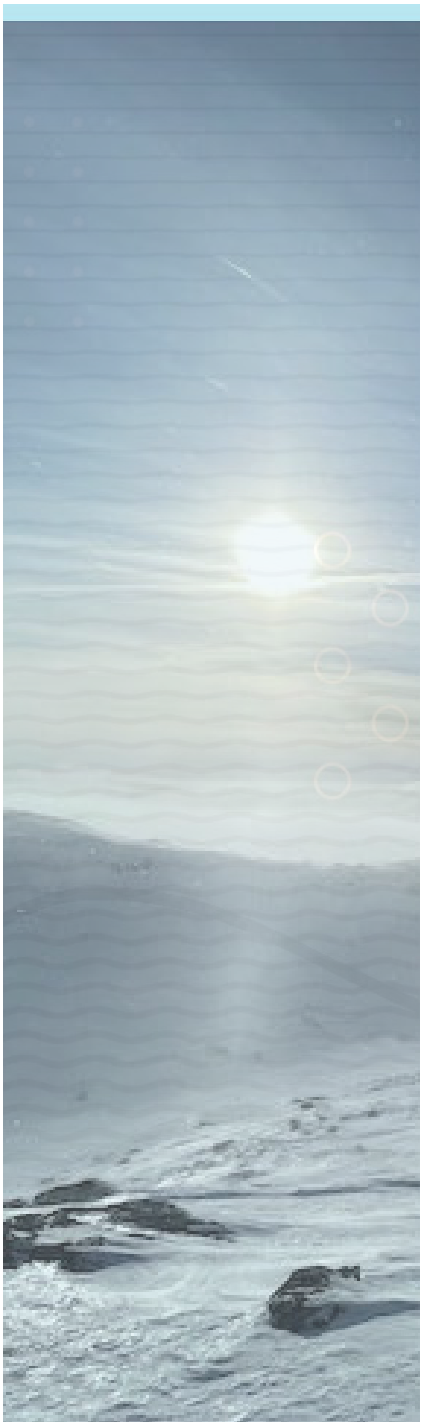
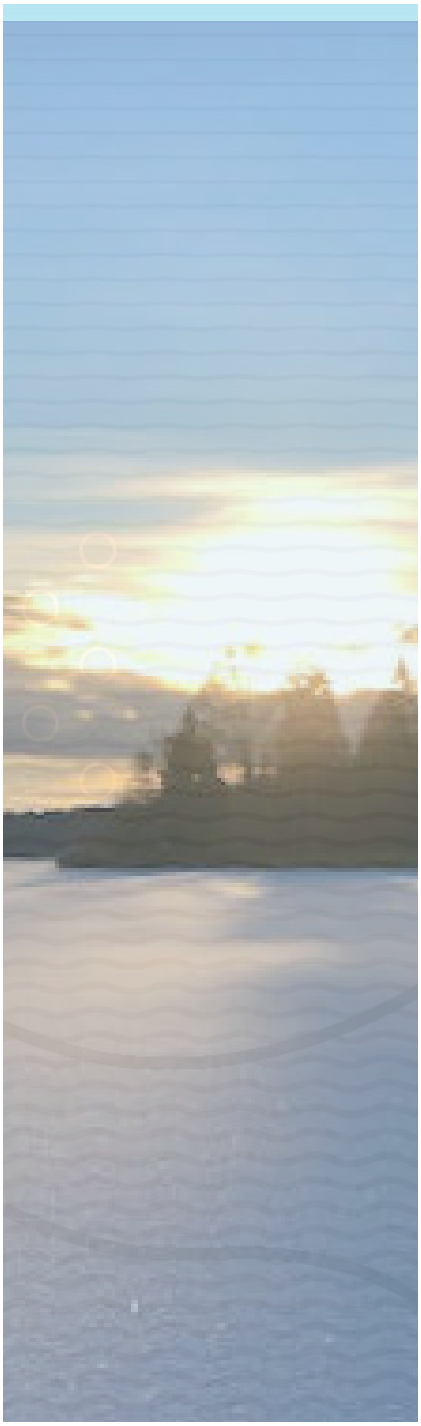
The sublime, ecocentrism *& friluftsliv*

Thesis · *Nordic master in friluftsliv studies* · Spring 2024







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SUMMARY

The anthropogenic effects of climate change and environmental degradation are well-known, and the trajectory of ways of living responsible for this decline must evolve to avoid destruction of the hapless – human and non-human alike. The Nordic practice of *friluftsliv* – outdoor recreation steeped in appreciation of nature – may offer a contribution to constructive change. Manifold permutations of *friluftsliv* exist today, but it initially developed with counter-culture ideals of the Romantic era alongside the fear–pleasure mix of *the sublime* that only nature can inspire. This study – a master's thesis – combined theory and philosophy typical of qualitative research together with established attitudinal instruments into a quantitative, online survey to investigate the presence of the sublime in contemporary *friluftsliv* and any association it might have with environmental perspectives of anthropocentrism, apathy, and ecocentrism among *friluftsliv* persons of the North ($n = 73$). Through statistical analysis, *experience of the sublime in friluftsliv* associated positively with *ecocentrism* ($\beta_1 = 0{,}65$; $p = 7{,}1 \times 10^{-12}$) and negatively with *anthropocentrism* ($\beta_1 = -0{,}25$; $p = 0{,}056$) and *apathy* ($\beta_1 = -10{,}34$; $p = 0{,}0047$) thereby reinforcing norms. Inquiry also addressed the plural character of *friluftsliv* experiences with incorporation of several covariates. Results are discussed alongside theory and self-critique.

CONTENTS

1 INTRODUCTION

In the relentless march of modernization, industrialization of twain centuries yore first cast its shadow upon the unwitting world with a gloom that continues to grow black as coal. Even then did city-dwellers attempt to retreat from this eclipse and embark on a journey that might exchange energy of the body for vitality of the soul. A prominent example of this was the Grand Tour, a journey through the rich diversity of European cultures and the magnificent nature that hosted them (Beames *et al.*, 2019). During this edifying *dannelse* (Loynes & Gurholt, 2017), travelers of the Romantic era traversed beneath the trepidatious pinnacles of the Alps and were struck with concurrent awe and rapture thus coming to know a reverence for the wonders of nature and the feeling of the sublime (Barsham & Hitchcock, 2013; Beames *et al.*, 2019; Brady, 2003; Macfarlane, 2003).

This paper results from a sort of Grand Tour of its own. Through the lands of Sweden, Norway, Iceland, and Norway again, the *Nordic master in friluftsliv studies* university program (Gurholt *et al.*, 2018; University of South-Eastern Norway, 2024c) stitched disparate yet allied views through a common thread: the natural world has a telling role in our human lives. This lies at the heart of *friluftsliv*. *Friluftsliv* as a praxis of this ecophilosophy holds potential to share in the redress of contemporary cultures that often neglect the environment they call home. The thesis at hand explores a small slice of this assertion.

In the text that follows, *§1.1: Theory & philosophy* paints the field of *friluftsliv* and its history as a Romantic ideal; *§1.2: Research problem* frames these ideas as a research project. The methods employed in the study are found in Chapter 2. The *Results* chapter, §3, uses tables and plots to plainly describe findings from descriptive statistics and inferential statistics of variance and association; I then expound on these results in *§4: Discussion*. Lastly, I offer comments on the project generally before concluding in Chapter 5.

1.1 Theory & philosophy

This section reviews empirical and conceptual literature to provide an overview of the phenomenon of *friluftsliv* and related topics relevant to this paper.

1.1.1 *Friluftsliv*

The word *friluftsliv* first appeared in Ibsen's (1859/1910) epic poem *Paa Viddene* to describe respite from society found in nature. The Scandinavian term translates to *olggonastin* in Sámi (Skille *et al.*, 2023) and literally to *free air life* or *outdoor life* in English. Found throughout the Nordic nations in language or outlook, *friluftsliv* takes various forms that have developed over time.

Friluftsliv exists as a sociocultural phenomenon perhaps most keenly in Norway (Brookes & Dahle, 2007). In the early 1900s, *friluftsliv* began to take shape as a feature of national identity and independence (Faarlund, 1993; Nansen, 1921/1994; Nedrelid, 1991; Ween & Abram, 2012). Legally, the Norwegian Ministry of Climate & Environment (2016) defined *friluftsliv* as *« opphold og fysisk aktivitet i friluft i fritiden med sikte på miljøforandring og naturopplevelse »* ("stay and physical activity outdoors in leisure time with the aim for change of environment and nature experience") (p. 10), and a 2021 state survey indicated that 97 % over the age of 16 yr participated in outdoor activities (Statistisk Sentralbyrå, 2021). Broad adoption of outdoor life is especially facilitated by liberal *allemannsretten* legislation – *freedom to roam* – a right that is common throughout the Fennoscandian nations of Finland, Norway, and Sweden. (Kaltenborn *et al.*, 2001; Naturvårdsverket, 2023; Norwegian Environment Agency, 2020; Norwegian Government Security and Service Organisation, 2023; Umhverfisstofnun, 2024; Ympäristöministeriö, 2024). As a result, outdoor life has contributed to Norwegian and Nordic cultural identity both from within and from without (Lundvall & Schantz, 2013; Stougaard-Nielsen, 2019).

As a practice today, two discourses of *friluftsliv* dominate. On one hand, academia in the period since the late 1960s has cast *friluftsliv* in an almost ideological light of ecophilosophy (Horgen, 2022; Wold, 2023). So-called *genuine friluftsliv* claims to act as a conduit to connect with nature, to nurture this relationship, and to integrate appreciation thus formed into a way of life (Gelter, 2007). This representation also draws influence from deep ecology and an intrinsic value of nature (Breivik, 2021; Næss, 1989) since "it is not the activity *per se* that is the focus and reward of the experience but rather the being in the landscape and interacting with the forces and rhythms of nature" (Gelter, 2007, p. 43). On the other hand, in non-academic understandings, *friluftsliv* often simply represents "outdoor recreation" (Gåsdal, 2007, p. 76; Høyem, 2020, p. 2; Kaltenborn & Vorkinn, 1993, p. 9). In this way, *friluftsliv* takes little

differentiation from sport (Horgen, 2022), though some maintain a distinction in favor of its more aesthetic origins (Eichberg & Loland, 2010; McCullough *et al.*, 2018; Tordsson, 2008).

1.1.2 Romantic roots

Friluftsliv is a product of the Romantic movement of the nineteenth century (Dahle, 1994; Faarlund, 2007; Rothenberg, 1993). Obverse to the Enlightenment and Industrial Revolution that ushered in an objectification of the natural world and acceleration in urbanity in Western cultures, Romanticism idealized the inherent aesthetic of a nature untainted by humanity (Aall *et al.*, 2011; Beames *et al.*, 2019; Brady, 2003; Dahle, 1994; Faarlund, 1993; Gelter, 2000; Gurholt, 2014; Slagstad, 2008). *Friluftsliv* expressed these Romantic ideas and offered upper social classes a way to again feel a connection to nature once satisfied by a rural lifestyle (Bigell, 2022; Slagstad, 2015; Vigane & Sæther, 2020).

The Romantic movement also emphasized aesthetics. Three primary types of aesthetic description became prominent: *the beautiful, the picturesque,* and *the sublime* (Brady, 2003). Of these three, because it describes an exhilarating mix of fear and pleasure in the presence of a great force in contrast to more passive experiences, *the sublime* (Barsham & Hitchcock, 2013; Brady, 2003; Macfarlane, 2003) may most readily apply to active experiences such as those of *friluftsliv*. These kind of experiences existed in inextricable union with the Romantic view of nature (Becker, 2016; Bethelmy & Corraliza, 2019; Cronon, 1996) even if extra-Nordic Romanticists had not the concept of *friluftsliv per se*. For example, travelers on the enculturation journey of the Grand Tour waxed poetic about their navigations through the Alps (Macfarlane, 2003; Nicolson, 1959/1997) in such a manner:

> *… Above me are the Alps,*
> *The palaces of Nature, whose vast walls*
> *Have pinnacled in clouds their snowy scalps,*
> *And throned Eternity in icy halls*
> *Of cold sublimity, where forms and fall*
> *The avalanche—the thunderbolt of snow!*

All that expands the spirit, yet appals
Gather around these summits, as to show
How Earth may pierce to Heaven, yet leave vain man below.
(Byron, 1816/1899, stanza LXII)

1.1.3 Sublime experience

The sublime can be considered *aesthetic awe* (Clewis, 2021; Clewis *et al.*, 2022) and an "agreeable kind of horror" (Addison, 1767, p. 261), a "terrible joy" (Dennis, 1693, p. 134). Nature – and wilderness in particular – can offer these feelings (Brown & Wattchow, 2015; Heintzman, 2009; S. Kaplan & Talbot, 1983). More specifically, in *friluftsliv*, multi-day ski trips (Graves *et al.*, 2020; Løvoll *et al.*, 2020), glacier hiking (Løvoll & Sæther, 2022), canoeing and trekking (Mikaels & Asfeldt, 2017), sea kayaking (Kronsted Lund *et al.*, 2020), mountaineering (Macfarlane, 2003), and tall-ship sailing adventures (Dyrdal & Løvoll, 2023) may also elicit feelings of the sublime and awe. Even in virtual reality, nature possesses the ability to stir feelings of the sublime more than fine art (Chirico *et al.*, 2021). With this understanding, the concept of the sublime connects aesthetics to emotion thereby granting the experience of the sublime an innate quality (Pelowski *et al.*, 2021).

Much literature exists that explores aesthetic appreciation of nature. *Cognitive* aesthetic models, most prominently the *natural environmental* model, hold that knowledge – especially that of the natural sciences – forms nature appreciation (Brady, 1998; Carlson, 2000; Carlson & Lintott, 2008). Conversely, *noncognitive* aesthetic models claim subjective perceptions such as *engagement, arousal, mystery,* and *imagination* govern aesthetic appreciation of nature (Brady, 1998; Carlson, 2000; Carlson & Lintott, 2008) and cognitive contributions, while unnecessary, offer augmentation (Brady, 1998; *cf.* Rolston, 1995). Empirically, evidence exists that both cognition and emotion may influence environmental behavioral intention (Wang & Yu, 2018).

The *engagement* model holds special relevance to *friluftsliv*. Though considered a noncognitive model, engagement and participation in nature also yields interest and knowledge – prerequisites for caring (Næss, 1987, 1989; Repp, 2004; Rolston, 2008). Kinesthetic activity is a cornerstone of *friluftsliv*, and it is through the body that we sense, interact, and experience our

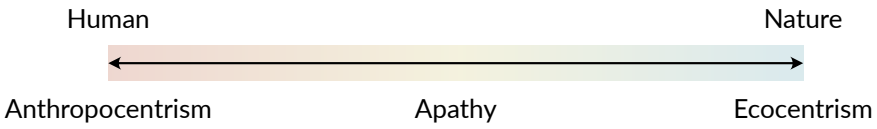
environment; thus, these movements have immediate and unavoidable meaning in themselves (Kearney, 2015; Kvaløy Sætereng, 1994; Merleau-Ponty, 1945/2012; Rolston, 2008).

When one experiences nature – feeling a buffeting wind on the cheeks, hearing the chatter of songbirds overhead, or sinking a foot through snow or mud – one exists not in a subject–object divide but intertwined with nature. Direct knowing can facilitate appreciation, and it follows simply that one cares for that one appreciates (Carlson & Lintott, 2008; Næss, 1989; Rolston, 2008; Schultz, 2002). Following this logic, the next section describes environmental perspectives.

1.1.4 *Environmental perspectives*

Aesthetics can lay a path to ethics of environmentalism through appreciation of beauty (Carlson & Lintott, 2008; Leopold, 1949/1989; Matthews, 2008; Rolston, 2008). Any number of views and perspectives exist; this paper concerns itself with those in a spectrum from human-interested to nature-interested:

Figure 1
Spectrum of environmental perspectives



Anthropocentrism

One the human end, *anthropocentric* values nature for it extrinsic and instrumental value (Gagnon Thompson & Barton, 1994; McShane, 2007). This view dominates Western thought (ten Have & Patrão Neves, 2021a) with strong ties to industrialism. The Sustainability Development Goals of the United Nations (United Nations, 2024) orient in this direction because they focus on the two *economic* and *social* pillars of the ubiquitous three-pillared *sustainability* model (a model of questionable foundation (Purvis *et al.*, 2019)) and all but ignore purely *environmental* concerns (Becken & Kaur, 2022; Kline *et al.*, 2023).

Apathy

In the middle of the continuum lies the perspective of *environmental apathy*, an attitude of general indifference toward environmental issues, though greater apathy correlates with greater anthropocentrism and less apathy correlates with greater ecocentrism (Gagnon Thompson & Barton, 1994).

Ecocentrism

On the other end of the spectrum lies the antithesis of anthropocentrism: *ecocentrism*. This view, begot in the Romantic era and further inspired by Leopold (1949/1989), among others, recognizes an intrinsic value of nature (Gagnon Thompson & Barton, 1994):

> Ecocentrism broadly refers to the different doctrines … that extend moral worth not only to all forms of life but also to their habitats, ecosystems, and to the planet Earth itself. Furthermore, it considers the spontaneous dynamics of nature should be recognized as a universal rule to which human beings should comply. (ten Have & Patrão Neves, 2021c, p. 449)

Deep ecology mirrors this perspective in philosophical and sociocultural movement form (Næss, 2008a; ten Have & Patrão Neves, 2021b).

Just as aesthetics can have cognitive and non-cognitive facets, ecocentrism may have cognitive and affective dimensions (Amérigo *et al.*, 2012). *Friluftsliv* offers a lens to see humans as a part of nature, included with and within it. Schultz (2002) described three psychological aspects of this inclusion: *connectedness with nature, caring for nature,* and *commitment to protect nature*. *Connectedness* is cognitive and refers to how one includes nature in their own perception of self (Schultz, 2002). *Caring for nature* grows from positive experiences in nature and leads to an affective bond or *emotional affinity* (Kals *et al.*, 1999; Schultz, 2002), and emotions are innate (Izard, 2007). It follows that, after connection and care, one develops behavior that considers the good of nature (Schultz, 2002), though some contest the actuality of this process (T. H. Beery & Wolf-Watz, 2014). In this way, *friluftsliv* may affect one's environmental perspective and world-outlook (Gelter, 2000), though plural factors likely affect one's *friluftsliv* experiences.

1.1.5 More factors

This section describes several conspicuous characteristics of *friluftsliv* that may have bearing on experiences in nature.

Instrumentalization

Disinterestedness is a Kantian concept that refers to an orientation toward a thing for its inherent aesthetic value and not because of any utilitarian value the thing may offer (Brady, 2003; Lorand, 1994; Richards, 2001; Todd, 2013). But *friluftsliv* often manifests in instrumentalized form, and Bigell (2022) asserted three primary forms of this context exist: *health, education,* and *tourism*. To instrumentalize *friluftsliv* means to advantage it for a utility to achieve some goal. Health and well-being spheres promote nature exposure and exercise for myriad benefits (Capaldi *et al.*, 2015; Carpenter & Harper, 2016; Coventry *et al.*, 2021; van den Bosch & Bird, 2018), schools incorporate outdoor activities for educational ends (Brügge *et al.*, 2018/2021; Gurholt, 2014; Jensen *et al.*, 2022; Mikaels, 2018; Öhman & Sandell, 2016; Sandell & Öhman, 2010, 2013; Sjödin *et al.*, 2023), and the tourism industry seeks a financial profit by commodifying the outdoors (Fredman *et al.*, 2021; Gunnarsdotter, 2006; Higham *et al.*, 2015; Hoarau-Heemstra *et al.*, 2023; Sæþórsdóttir *et al.*, 2011). But at its heart, the value of *friluftsliv* is the value of *friluftsliv* itself: play, simplicity, and even joy (Breivik, 2021; Faarlund, 1993; Gurholt, 2014; Næss & Haukeland, 2008; Sandell & Öhman, 2010). It is *eco-leisure*, a relationship between human and nature (Ron *et al.*, 2008). Instrumentalization forsakes the leisure and pleasure *friluftsliv* can offer in its re-enactment of subsistence, exploration, and sporting practices. These characteristics, often curbed by modern life, carry the Romantic spirit.

Outdoor activities

Friluftsliv is experience and activity in nature. This broad stroke need not paint an image of defined activity or activities, but more specificity can help solidify something left otherwise nebulous. While *friluftsliv* as outdoor recreation can include extractive pastimes like berry-picking or mushroom-picking, it also includes more athletic activities such as skiing, climbing, or paddling. Standard sports (*e.g.*, football; handball) have a necessary component of

competition between persons or people (Krein, 2014). In contrast, *friluftsliv* does not include competition (Bigell, 2022; Faarlund, 1993; Gelter, 2010; Nansen, 1921/1994) – or, at the least, *friluftsliv* nature sports differ from traditional sports in that they do not require competition due to the defining part one or more natural features play (Krein, 2014; McCullough *et al.*, 2018). Regardless of whether a natural feature (*e.g.*, a river rapids; a mountain slope) takes a role of teammate or opponent, or whether it modulates between these roles throughout the activity, differences between human and physical nature lack the likeness required for meaningful competition (Krein, 2014). This is to say: approach to and mindset in an activity as they relate to nature are critical in the concept of *friluftsliv* thereby forming a spectrum of *friluftsliv* that ranges from the self-interested to the ecological (Breivik, 2021; Howe, 2019).

Skill

Adventure sports include extreme sports such as big mountain skiing or mountaineering (Brymer & Gray, 2009; Immomen *et al.*, 2022) that require unique training, commitment, and skill (Immomen *et al.*, 2022) – those that may call upon the Finnish concept of *sisu* to persevere (Lahti, 2022). These kinds of skills are not equivalent to commercialized *fast adventures* (Immomen *et al.*, 2022; Varley & Semple, 2015) like a whitewater rafting tourist excursion.

Extreme adventures can represent a quest for a transcendental experience of exchange between one's own existence and the existence of nature (Loynes & Smallwood, 2022). These sublime experiences carry the risk of harm or even death, and they may instill a sense of humility toward nature – an ecocentrism – in those who partake in them (Brymer & Gray, 2009; Brymer & Oades, 2008). Participation in extreme *friluftsliv* may also take motivation as a Romantic compensation to the restraints of modernity (Langseth, 2011).

Though *friluftsliv* need not be extreme nor especially adventurous, many *friluftsliv* activities may be cast in this way as levels of high skill come into discussion. Deeper nature immersion may require greater skill (Løvoll, 2019) because skill is how one interacts with one's environment (Mullins, 2021) and may strengthen emotional affinity toward a place (Mullins, 2014). Dreyfus & Dreyfus (2005) outlined a set of five ordinal skill levels:

1 *novice*
2 *advanced beginner*

3 *competent*

4 *proficient*

5 *expert*

These delineations also roughly align with the four stages of competence proposed by DePhillips *et al.* (1960) where one's recognition of their own skill varies as skill level progresses: *unconscious incompetence, conscious incompetence, conscious competence,* and *unconscious competence.* With well-developed skill, the activity element of *friluftsliv* requires less attention from the practitioner (Charlton, 2008). One can act intuitively (Dreyfus & Dreyfus, 2005), and they can then give more attention to the environment with which they engage thereby decreasing objectivity of the environment and flattening the ontology between them.

Solitude

In an escape from the *ennui* of urban routine and process, Romanticists sought the solace of nature for peace (Franklin, 2013; Nash, 2014). Outside of structured society, one could feel like their true and authentic self (Beedie, 2015; Walter, 1982). One can understand this sensation of *solitude* as more than simply physical, spatial isolation but also "psychological detachment from society" (Hollenhorst & Jones, 2001, p. 56). Solitude may help connect one to nature (Koch, 1997), and, empirically, wilderness experiences have provided experiences of solitude considered valuable to those who have had these experiences (S. Kaplan & Talbot, 1983; Løvoll & Sæther, 2022; Lund, 2022).

Friluftsliv offers this opportunity to evade the teeming masses (Nansen, 1921/1994). For example, in a survey in Norway (Vaage, 2015), cross-country skiers were less likely to hold memberships at sports clubs, settings where many crowd together. Riskier manifestations of *friluftsliv* such as outdoor adventure also express this a kind of modern Romantic respite (Langseth, 2011; Loynes & Smallwood, 2022; Lynch & Moore, 2004).

Tour duration

The Norwegian government's definition of *friluftsliv* states itself that *friluftsliv* involves a "stay" (Klima- og miljødepartementet, 2016, p. 10), and deep ecology suggests that ecologically

conscious *friluftsliv* requires *time for adjustment* in order to sensitize to the dissimilarity between urban and outdoor life (Næss, 1989). In practice, university students in Norway have expressed the significance of multi-day wilderness excursions for attuning to nature and growing a deeper connectedness (Løvoll & Sæther, 2022; Lund, 2022). This relates more to *traditional friluftsliv* than the more sporty and adventurous aim of *modern friluftsliv* (Tellnes, 1992, as cited in Breivik, 2021; Green *et al.*, 2015), where, for example, objective-oriented expeditions to the poles lasting over a month have exchanged ecocentrism for physical and mental degradation (Devonport *et al.*, 2011; Pedlar *et al.*, 2007). Other studies report intrapersonal motivations (Basil, 2023; Vistad *et al.*, 2020) and psychological benefits (Mustapic & Zeger, 2021) to extended outings. Nature-relatedness, which can relate to one's existential perspective (Öhman & Sandell, 2016), also appeared as a motivation for those on the St. Olav's Way long-distance hike in Norway (Vistad *et al.*, 2020).

Though not duration, another temporal dimension, frequency of visits to the outdoors, may also have significance. For example, visiting nature at least once per week has been associated with more pro-environmental behaviors than simply living in greener neighborhoods (Martin *et al.*, 2020). With regular nature experiences, nature becomes more integral to life, and the nature–culture dichotomy fades (Gurholt & Haukeland, 2019; Kvaløy Sætereng, 1994); this approaches the ways of Indigenous Peoples (Kvaløy Sætereng, 1994) making it more akin to the Sámi concept of *meahcástallan* that traditionally describes the necessity of natural landscapes for life (Skille *et al.*, 2023).

Landscape

Mountains, with their challenging conditions and towering forms, inherently epitomize landscapes that might be considered both wild and spacious (Swaffield & McWilliam, 2013). As such, mountains played an important part in the development of the Romantic sublime (Fredman *et al.*, 2021; Higham *et al.*, 2015; Macfarlane, 2003; Nicolson, 1959/1997) and are well-known in Nordic landscapes, especially in Iceland, Norway, and parts of Sweden (Brady, 2010; Eikje *et al.*, 2019; Fredman *et al.*, 2021; Slingsby, 1904; Wollstonecraft, 1796/1889). Aesthetic appreciation, including that of landscape, is culturally informed (Ulrich, 1983). Indeed: uncultivated landscapes in Western thought have evolved from disgust to aesthetic appreciation (Barsham & Hitchcock, 2013; Brady, 2003; Carlson & Lintott, 2008; Macfarlane,

2003; Nash, 2014; Nicolson, 1959/1997). The Western worldview often revolves around dualisms where the human subject objectifies land, which makes for weak stances in environmentalism (Jóhannesdóttir, 2010), though a cultural turn of *new biophilia* may be growing (van den Born *et al.*, 2001). But this is not a new idea: *traditional ecological knowledge* from Indigenous Peoples the world-over encapsulates a nature-subjectivity and -reciprocity that has increasing importance for the restoration of damaged ecologies (Kimmerer, 2011).

Experience of the sublime has motivated the preservation of land for national parks (Nash, 2014; Swaffield & McWilliam, 2013). Wild places such as these have been described as places to experience the awe and wonder of the sublime and other positive experiences (R. Kaplan & Kaplan, 1989; S. Kaplan & Talbot, 1983), and one study in the Netherlands found these kinds of landscapes overwhelmingly preferred to landscapes more influenced by human activity (de Groot & van den Born, 2003). Spacious landscapes may facilitate nature connectedness (van Rompay *et al.*, 2023), and such expanses can facilitate the vastness of the sublime. Even though the wilderness setting of eco-friendly *friluftsliv* can be seen as a construct (Cronon, 1996; Greider & Garkovich, 1994; Sæþórsdóttir *et al.*, 2011) set aside as a sort of museum (Sandell, 2016), one's experience of the landscape is not absolute but subjective (Jóhannesdóttir, 2010; Sæþórsdóttir *et al.*, 2011) where human and environment interact through a collective *flesh*, each touching the other (Abram, 1996). With this interconnectedness in mind, the next sections shape these ideas into this paper's research project.

1.2 *Research problem*

Adoption and strengthening of attitudes more ecocentric are necessary to mitigate the harms of climate change and other anthropogenic environmental debacles. In scholarly schools of thought, *friluftsliv* provides a way to an ecocentric life. The concept carries potential but falls moot if not actually realized. It could be that popular *friluftsliv* today demonstrates little of the values associated with ecologically-oriented *friluftsliv:* population surveys from Statistics Norway (Statistisk Sentralbyrå, 2021) couple *friluftsliv* with sport and fitness training, and Swedish physical education curricula emphasize its activity aspect (Mikaels, 2019; Sjödin *et al.*, 2023). Cases such as these undermine potential ecological values of *friluftsliv*. This kind of suppression stands problematic because the potential ecological values of *friluftsliv* can associate

with counter-culture philosophies like those from the Romantic movement that importantly challenge the woes of modernity.

Ecopraxeology unites the ideas of ecophilosophies and real-world conduct (Haukeland, 2022): *friluftsliv* through this lens is purported to offer an expression of ecocentrism and potential for change when practiced with the corresponding aesthetic and contemplative approach (Breivik, 2021; Næss, 1989; Nansen, 1921/1994; Rothenberg, 1993). Empirical evidence adds to these claims, but the complexity of the field warrants expanded study (Rosa & Collado, 2019; Thapa, 2010). Research has investigated *friluftsliv* among environmentalists (Wolf-Watz *et al.*, 2011), but little exists about what contra-modernity sentiments – exemplified by a tendency away from anthropocentrism and toward ecocentrism – exist in the general *friluftsliv* practice of today's populace; this paucity is particularly true of quantitative evidence.

The aim of this study was to investigate the presence of *friluftsliv*'s values in popular practice and, therefore, the potential of *friluftsliv* to demonstrate those values outside of academia. An additional objective of this study desired to generate quantitative data. Though quantitative works do find their way to publication, there generally exists a dearth of such methods in the field. For example, the textbook *Research Methods in Outdoor Studies* (2019) contains 194 pages over 18 chapters and two sections dedicated to qualitative methods compared to one section that combines both quantitative and mixed methods across 58 pages and five chapters.

1.2.1 Research question

The research question aimed to guide an investigation between Romantic ideologies founded in the past and contemporary thought as it exists in popular practice. This thesis could not assume the scope to research Romanticism broadly, so I identified aesthetics as something of significance to represent Romantic views. Narrowing further, the sublime stands as an aesthetic particularly characteristic of Romanticism. Romanticists, in their movement counter to urbanization, industrialization, and the objectification of nature, took up ecocentric views. *Friluftsliv* was born of Romanticism but has changed in meaning over time (Horgen, 2022) as many things are wont to do. Thus, the research question begged a glimpse at what of the past reflects in the present:

How does sublimity of an experience in contemporary friluftsliv relate to environmental perspective?

1.2.2 *Significance*

Epistemologically, to ask not simply what a thing *is* but what a thing *does* can broaden horizons (Deleuze & Guattari, 1987). Vetlesen (2015) wrote, "To make a difference in the real world, the social as well as the natural one, a shift must be made from theorizing nature to experiencing nature" (p. 2)[1]. Anthropogenic climate crisis involves both these human and natural worlds. Aesthetics of nature can only be non-anthropocentric and morally connected; such characteristics also coincide with the requirement that nature aesthetics must be "deep" (Carlson & Lintott, 2008, p. 12). This means one must develop an aesthetic beyond the scenic *tourist gaze* (Urry & Larsen, 2011) of the picturesque and experience *immersion* (Carlson & Lintott, 2008), where *immersion* is a strong emotional activator (Løvoll, 2019) that may lead to an attitude of helpfulness toward others (Guéguen & Stefan, 2016). Nature experiences may also lead to pro-environmental behavior.

Nature experiences may foster a nature ethic. Aldo Leopold (1949/1989) described the need for a *land ethic,* a moral obligation to treat nature with respect just as one ought to treat another in like fashion. In addition to abstract assertions from philosophers like Næss (1989), Nansen (Breivik, 2021), Faarlund (1993), Vetlesen (2015), and Bateson (Charlton, 2008), more concrete studies support the theory that exposure to natural environments may develop something akin to this pro-environmental land ethic in the form of nature conversation and nature connectedness (Barrows *et al.*, 2022; T. H. Beery, 2013; Brügger *et al.*, 2011; Lumber *et al.*, 2017; Martin *et al.*, 2020; Svarstad, 2010). This effect may only arise from an emotional experience (Grund *et al.*, 2024; Lumber *et al.*, 2017; Zhang *et al.*, 2014) such as one sublime. Extreme nature sports may also contribute balance to a human–nature relationship with humility (Brymer & Gray, 2009; Brymer & Oades, 2008), a possible antidote to anthropocentric hubris (Vetlesen, 2017) and a reshaping of the Anthropocene into the *Humilocene* (Abram *et al.*, 2020). However, pro-environmental behavior does not spontaneously arise from *friluftsliv*, and attentiveness and reflection is likely needed (Høyem, 2020; Richardson *et al.*, 2022). Still, just as philosophers suggested, one must have an experience in order to obtain material on which to reflect, and it is these experiences into which the methods of this thesis sought to query.

[1] The subsequent sentence reads, "The contradiction involved in stating this in an academic book such as the present is not lost on me" (Vetlesen, 2015, p. 2).

2 METHODS

This study utilized quantitative methods. However, like a dualism of nature and culture, a strong dichotomy between quantitative methods and qualitative methods is a dubious disconnection. Qualitative methods often approach quantification with pattern recognition, coding, and theme-generation (St. Pierre & Jackson, 2014), tasks that involve countable distributions and frequencies. Qualitative methods also often utilize textual, language-based data while quantitative methods use numeric data, but the mathematics of quantitative methods can stand as kind of language itself. I do not claim this was a phenomenological study, but if phenomenology requires language (Abram, 1996; Engelland, 2020), then perhaps numerical language can also attempt to describe an *essence* in its own way. This was a quantitative study built primarily from qualitative perspectives but with the novelty of reaching more participants than qualitative methods typically allow and with an analysis of results with a numerical lens instead one textual.

2.1 *General design*

Consistent with the time available for the project, I employed a *cross-sectional* design (Boslaugh, 2013; Kumar, 2014), an observational design (Boslaugh, 2013) that is common in social studies (Kumar, 2014), since a longitudinal design would have proved impractical within the time available. Though omission of a temporal component might stand as a weakness, concentrated focus one a single point in time without complexity of change over time gave a strength of simplicity.

2.2 *Data collection*

An online survey collected data. This method provided a convenient approach for both participants and me and carried potential to collect large amounts of data. As with this entire study, I composed the questionnaire and distributed it over the internet while physically located in Bø i Telemark, Norway.

2.3 *Recruitment*

The text in the syndicated solicitation for participation (Appendix A) was transparent in its intent. Additionally, the introductory page of the questionnaire proper expanded on what a participant could expect. The voluntary nature of participation was clearly stated, and the questionnaire began with a required verification of consent. The survey opened on 1 February 2024 and closed on 15 February 2024. I created no comments on my original invitation posts (more on this below) nor reminder posts part-way through the survey period as I thought it distasteful to do so particularly since I was essentially a temporary guest in forums in which I posted, and response numbers without a such reminders were adequate.

2.4 *Instrument*

I constructed the web-based questionnaire with Nettskjema, a software application developed by University of Oslo (Universitetet i Oslo, n.d.), which was the form-generation tool recommended by University of South-Eastern Norway (University of South-Eastern Norway, 2024a). The questionnaire consisted of 12 pages and 74 questions (Appendix B). Response to all questions was mandatory. Key variables replicated established instruments (§2.4.3) for validity and reliability.

2.4.1 *Questionnaire introduction*

Following the welcome page with a single question that pertaining to consent to participate, the questionnaire presented 5 – 6 questions related to standard demographics. (The range indicates that one question was a branched question offered depending on the response to the previous question). Age was collected by year of birth; education was collected as years-of-education in order to allow for a continuous numerical variable type. When asked to select a country of citizenship or residence, in keeping with the requirements of this thesis project – namely, to employ a Nordic perspective – only the five Nordic nations (Denmark, Finland, Iceland, Norway, and Sweden) were explicitly offered in addition to an option of *Other*. (Though autonomous regions to some degree, for the sake of simplicity, I did not offer separate response options for the Faroe Islands, Greenland (both considered a part of the Kingdom of Denmark

(Nordic Council & Nordic Council of Ministers, 2024c, 2024b)), or Åland (a part of the Republic of Finland (Nordic Council & Nordic Council of Ministers, 2024a)). However, as the study concerned culture and not politics, the use these further distinctions could have been easy to support.) If a respondent selected a Nordic country, a follow-up question asked for their postal code, a datum from which other geographical characteristics could be deduced.

The next page of the questionnaire contained no questions but only brief guidance for the remainder of the questions, which was divided into three sections: *Friluftsliv background; During friluftsliv experiences;* and *Environmental perspective.*

2.4.2 *Friluftsliv background*

The *Friluftsliv background* section collected responses for intervening variables. Intervening variables do not hold data of direct interest to the research question but are variables that are suspected to potentially influence independent and dependent variables (Kumar, 2014). In this case, many of the intervening variables were, in a way, an extension of the demographic variables and gave a *friluftsliv*-context to the respondent's profile. More interesting than considering these intervening variables as demographic descriptors, they also contextualized the key variables of the study (ratings of *sublime experience* and *environmental perspective*, discussed below) and served as covariates in the analysis (§3.4.2). Theoretical motivations drew from various sources discussed above in *§1.1.5: More factors.*

Context

Friluftsliv can be considered the practice of *outdoor recreation* (Høyem, 2020). Beyond this, related manifestations take the leisure core of *friluftsliv* and apply it to some purpose other than leisure *per se*. I borrowed contexts of *friluftsliv* given by Bigell (2022): *health & well-being, education,* and *tourism*. Though Bigell used only the term *health*, I added *well-being* to further describe this response option.

Activity & skill

Furthermore, *outdoor recreation* is a broad term that encompasses a diversity of disparate activities itself. To address this, one question asked a respondent to indicate their degree of skill in specific *friluftsliv* activities (thereby also indicating participation in the activity by inference). A nation-wide survey in Sweden on nature-based tourism referred to 43 outdoor activities (Fredman *et al.*, 2008), though not all of them *friluftsliv*. Instead, I built a list of options from selections found in the survey *Sports and outdoor activities, survey on living conditions* (*Idrett og friluftsliv, levekårsundersøkelsen*) conducted by Statistics Norway (Statistisk sentralbyrå) (2021). In this survey, StatBank source table *13372: Sex, age and outdoor activities 2021* (*Kjønn, alder og friluftslivsaktiviteter*) (Statistisk Sentralbyrå, 2022) contained 23 items divided among 15 activities of varying specificity. I referred to both English and Norwegian language versions of the table to eliminate aggregate options and as well as consolidate others. This resulted in 14 selections. Feeling that some selections were too general and others absent, I expanded the selections based on my own familiarity with outdoor activities. (I removed *nature sleepover* altogether as I deemed it unfitting in the context of skill in which I cast the questions.) The resultant list contained 27 items where some items grouped similar activities together (*e.g.*, *walking, running, hiking, or snowshoeing* was presented as a single item). For clarity, some activities I coupled with non-English synonyms (*e.g., cross-country skiing (langrenn)*).

Part-way through the survey period (after 47 responses we received), one respondent contacted me and inquired if I purposely excluded activities with motorized vehicle such as snowmobiles, ATVs, and similar. Though motorized activities continue to grow in popularity and may be considered *friluftsliv* in some circles (Gelter, 2007), I did not include these *post-modern friluftsliv* activities (Gelter, 2007), and some exclude them from definitions of *friluftsliv* altogether (Bigell, 2022). Table 1 shows the foundation drawn from Statistics Norway and my modified list. (All activities are assumed to occur outdoors.)

Table 1
Friluftsliv activities

Statistics Norway	Modified typology
Hiking	Walking, running, hiking, or snowshoeing
	Trekking (backpacking)

Statistics Norway	Modified typology
Skiing	Cross-country skiing (*langrenn*)
	Fjellski (Nordic backcountry mountain skiing)
Snowboarding; alpine or *randonnée* skiing	*Randonnée* ski touring or splitboarding (*topptur*)
	Lift-served alpine skiing, alpine telemark skiing or snowboarding
Ice skating (outdoor)	Tour ice skating (on natural bodies of water)
Climbing (outdoors)	Bouldering (outdoors)
	Sport rock climbing
	Trad (traditional) rock climbing
	Ice & mixed climbing
	Mountaineering
Cycling	Road cycling
	Mountain biking
Swimming (outdoors)	Swimming (in natural bodies of water)
	Freediving
	Scuba diving
Canoeing, kayaking, rowboat	Flat-water paddling or rowing
	Whitewater river paddling or rowing
	Sea kayaking
Other leisure boating	Other leisure boating
	Surfing or other wave sports
Berry- or mushroom-picking	Berry-picking or mushroom-picking
Horseback riding	Horseback riding
Fishing	Fishing
Hunting	Hunting
Nature sleepover	(*discarded*)

For the 27 activities, a respondent could select their level of skill in the activity or accept the default response *Not a participant*. (This was the only question in the questionnaire configured with a default response.) Nettskjema offered no option for a visual analogue scale (discussed below) in this two-dimensional–style question format, and I did not wish to present a wholly

separate question for each activity in order to utilize a visual analogue scale because it would demand more of the respondent, so I deemed a categorical approach for *skill* sufficient. Five skill levels appeared available in the question (*novice, advanced beginner, competent performer, proficient performer,* and *expert*). I considered substituting different wording for some of skill levels since the adjectives used could lead to different interpretations, but I decided to keep the original terminology used by Dreyfus and Dreyfus (2005) since I already leaned on their theory, and I did not want to inadvertently introduce error. Additionally, I deemed the ordinal arrangement of the skill level designations would provide additional information about the relative meaning of each and that context – in addition to faith in one's intelligence – would suffice to make the meaning of the question clear enough.

Tour partners, tour duration & landscape

As above, *§1.1.5: More factors* offers support for the relevance of these variables. The number of tour partners preferred by a respondent was collected as a discrete numerical value that ranged from 0 to 10 or more. Likewise, tour duration used the same scale to collect number of nights one prefers to extend a tour. Last in this section, two questions on landscape preference used visual analogue scales to collect continuous numeric ratings where I borrowed terminology: *tended* and *wild* (Chiang *et al.*, 2017); *dense* and *spacious* (van Rompay *et al.*, 2023). As shown in Table 2, key variables also used this type of input, which the next section describes.

Table 2
Variables

Variable	Variable role	Data type	Questions
Year of birth	demographic	discrete numeric	1
Gender	demographic	nominal categorical	1
Years of education	demographic	discrete numeric	1
Marital status	demographic	nominal categorical	1
Country of citizenship or residence	demographic	nominal categorical	1

Variable	Variable role	Data type	Questions
Applicational context of *friluftsliv*	intervening	nominal categorical	1
Friluftsliv activity & skill level	intervening	ordinal categorical	26
Tour partners	intervening	discrete numeric	1
Tour duration	intervening	discrete numeric	1
Landscape preferences	intervening	continuous numeric	2
Sublime experience	key independent	continuous numeric	18
Environmental perspective	key dependent	continuous numeric	20
			74

2.4.3 *Key variables*

Questions under the heading *During your friluftsliv experiences* comprised the second main section of the questionnaire. These 18 questions represented this study's key independent variable with the empirically refined version of Bethelmy and Corraliza's (2019) *Sublime Emotion toward Nature Scale*. This scale contained 6 questions that pertained to *awe* and 12 questions about *inspiring energy*.

The response format for all questions used a scale with poles labelled *Disagree* and *Agree*. Shunning the common Likert scale (1932), I opted for a visual analogue scale format in generate data of higher resolution and decrease the likelihood of heuristic responses of neutrality (Pearse, 2011). A *visual analogue scale* is a continuous scale were a respondent marks their response on an unlabeled line instead of selecting a discrete answer as with a Likert scale (Hayes, M. H., & Patterson, D. G., 1921, as cited in Couper *et al.*, 2006; Reips & Funke, 2008). The higher resolution is easily facilitated by modern computer graphical user interfaces (Reips & Funke, 2008) using mouse or touchscreen in contrast to the pencil-and-paper era in which the Likert scale was developed. Though also developed before the age of computers, digital implementation seems equally valid (Delgado *et al.*, 2018). Additionally, a visual analogue scale may reduce dependence on language (Gift, 1989), which was particularly relevant for the international nature of this survey. In implementation, I used a horizontal linear scale with 101 points (0–100). I would have preferred not to display the numeric value of a response indication as Nettskjema did so as to remove any biases low or high values can attract (Rosch,

1975), but values remained visible as Nettskjema offered no option to hide them. (I did submit this feedback to Nettskjema.)

Nettskjema rendered a significant amount of white space (empty space on the page) between the statement one was asked to consider and the response input. This resulted in that the input of one statement would be displayed more closely to the subsequent statement than to its properly matching statement. Throughout this section – and, in fact, throughout the entire questionnaire both before and after this section – I inserted supplementary whitespace by way of a text element in the form builder populated with whitespace itself. This produced adequate separation between one question and the next while making clear the association between statement and input – an illustration of the basic principle of *proximity* in the field of graphic design and page layout (Kobourov *et al.*, 2015; Kuba, 2021; Lupton & Phillips, 2015; Tversky, 1997). (This issue I also shared with Nettskjema developers.)

To the final section of the questionnaire, I gave the heading *Environmental perspective*. These 20 questions came from the instrument employed by Amérigo *et al.* (2012) to measure *environmental concern;* in my implementation, I changed the phrase to *environmental perspective* for a more neutral connotation. This questionnaire (or questionnaire section, in my case) assimilated selections from five different sources (Clayton, 2003; Gagnon Thompson & Barton, 1994; Maloney *et al.*, 1975; Mayer & Frantz, 2004; Weigel & Weigel, 1978) combined to make the whole. I chose to use this instrument because it synthesized the works of different author groups. Additionally, with four dimensions, the tool demonstrated more richness than a dipolar scale (*cf.* Gagnon Thompson & Barton, 1994). Like the *Sublime Emotion toward Nature Scale* itself, I employed these questions from published researchers so as to hedge against my own limited research experience. These questions covered 4 dimensions with 5 questions per dimension:

- *anthropocentrism*
- *environmental apathy*
- *nature connectedness*
- *emotional affinity*

Together, *nature connectedness* and *emotional affinity* represented *ecocentrism*. (As in *§1.1.4: Environmental perspectives*, the *Results* and *Discussion* chapters of this paper find them

combined in this way again.) For brevity, I used terms *anthropocentrism, apathy, connectedness,* and *emotional affinity.*

2.5 *Population & sample*

This research was conducted to satisfy the requirements of the study program titled *Nordic master in friluftsliv studies*. The course plan for the master's thesis stated the thesis must be a study "from a Nordic perspective" (University of South-Eastern Norway, 2022, sec. 7). Therefore, the population of study was those in the Nordic countries (citizens, residents, or other affiliates) who participate in *friluftsliv*. This means I employed a *quota sampling* design, a type of non-probability sampling, because I sampled only from the population of interest (Kumar, 2014).

Bound to limited resources, to sample the population, I posted in Facebook Groups (Meta, n.d.). (Critique of this method follows in *§4: Discussion*.) Facebook is a social media platform with over 3 billion active users per month (Meta, 2024), and my personal experience suggested Facebook Groups are generally popular in Scandinavia, at least. I posted to *friluftsliv*-related groups an invitation that sought volunteers to participate in the survey. I recruited from Facebook Groups as since I could conduct sampling through the internet (*convenience sampling* (Kumar, 2014)). This was also *purposive sampling* (Kumar, 2014) since I presumed the members of the groups would have familiarly with the topic of study (*friluftsliv*), and I could relate to existent research on similar topics that also sampled *friluftsliv*-goers (Graves *et al.*, 2020; Løvoll, 2019; Løvoll *et al.*, 2020; Løvoll & Sæther, 2022) – as described above, those without this familiarity would not suit the research. Additionally, given the underlying impetus of this study was to satisfy an academic requirement, I thought collecting my own data might provide valuable experience in contrast to centering my research around an existent dataset.

All groups selected originated in the Nordics. I utilized both public (open to join) and private Facebook Groups that accepted my request to join. To identify groups, I used both English and non-English terms (for example, *norway, norge, norsk; outdoor, nature, natur, friluftsliv*) in various combinations in queries via Google as well as Facebook's own search tool. I did not attempt to join groups where my post would violate group rules.

I identified 72 candidate groups that met criteria of a membership of 1 000 or members and an activeness of at least 1 post in the past 30 days. (Both criteria were visible without joining a group.) This included two groups local to Bø from which I hoped would yield particular interest.

I requested to join 34 of the highest quality groups but ultimately succeeded in publishing my post only in 20 groups because some groups would not approve my request for membership (a prerequisite to posting), and some attempts to post were rejected by group administrators or left pending approval over the entire survey period, though I feel I did not violate any group rules as they were stated. (Facebook does not generally deliver notifications related to membership requests or posts that are denied.) Because the survey was anonymous, and even though it would not likely compromise anonymity, I mindfully collected no referral source (*i.e.*, from which Facebook Group someone responded). Since the survey was open to anyone, and I stated that it was welcome to be shared with others, it is also possible individuals outside of the selected Facebook Groups also responded. The sum of group memberships totaled 515 761 at the time of posting (1 February 2024). Table 3 details characteristics of groups used as the sample:

Table 3

Facebook Groups solicited

Group name	Country	URL handle	Members
Vandringsleder i Sverige	Sweden	905841302845862	255 748
Friluftsliv	Denmark	friluftsliv.email	55 656
Toppturer i Nordvest	Norway	184765278217502	41 734
Friluftsliv i Vestland	Norway	FriluftslivVestland	30 409
Friluftsliv og Udeliv	Denmark	128382524647698	22 235
Outdoor Siskot	Finland	243046879122948	16 006
Sveriges Djur, Natur och Friluftsliv	Sweden	285177228285061	15 020
Toppturer i Trøndelag	Norway	topptureritrondelag	14 672
Topptur i Hemsedal og Hallingdal	Norway	800937153255892	12 601
Topptur Tromsø	Norway	topptur.tromso	12 121
Toppturar på Sunnmøre	Norway	2339503729680842	9 790
Telttailu	Finland	37013256580	8 101
Toppturer på Lifjell	Norway	45186618520325	5 491
Friluftsliv	Sweden	516344371842447	4 565
Fjallaskíðafólkið	Iceland	224459487662368	4 050
Friluftsliv for Alle	Norway	265852940602367	1 860
Foreningen “Dansk Friluftsliv”	Denmark	9655186414	1 761
Ferðafélag Ísfirðinga	Iceland	Ferdafelag.Isfirdinga	1 440
Friluftsliv i Bø	Norway	140065289362985	1 278
Friluftsliv	Sweden	224795321586668	1 223
			515 761

Table 4 places membership counts in the context of general population counts (Statistics Denmark, 2024; Statistics Finland, 2024; Statistics Iceland, 2024; Statistics Sweden, 2024; Statistisk Sentralbyrå, 2024). Take this only as approximate representations of proportion since the computations make the liberal assumption that group members are counted in state populations:

Table 4

Potential Facebook Group members reached compared to general population

Country	Members	Population	Potential reach
Denmark	79 652	5 962 689	1,34 %
Finland	24 107	5 608 218	0,43 %
Iceland	5 490	383 726	1,43 %
Norway	129 956	5 550 203	2,34 %
Sweden	276 556	10 550 054	2,62 %
Nordics	515 761	28 054 890	1,84 %

I used the same text in posts for all groups. I wrote this in English because that is my native language as well as the international nature of the project and widespread knowledge of English among non-native speakers. (Also, I know not Danish, Icelandic, Finnish, nor Swedish languages and have only elementary competence in Norwegian.) Appendix A holds a copy of the post.

2.6 *Personal data & ethical considerations*

The questionnaire sought no personal data and was thus entirely anonymous. Because of this, notification to and data processing approval by Sikt (the full name of which is *Kunnskapssektorens tenesteleverandør* in Norwegian or Norwegian Agency for Shared Services in Education and Research in English) was unnecessary: data met the criteria to receive classification as *open* (also called *green*) data that required no special treatment (Sikt, 2022; University of South-Eastern Norway, 2024b). This I also confirmed with University of South-Eastern Norway's data protection officer, Paal Are Solberg (P. A. Solberg, personal communication, December 12, 2023; Universitetet i Sørøst-Norge, 2024b).

Regarding ethics, I sought the advice of University of South-Eastern Norway's ethics advisor, Magnus Egan (Universitetet i Sørøst-Norge, 2024a). He communicated there generally exists no

formal requirement for ethical approval within the social sciences in Norway (M. Egan, personal communication, January 19, 2024), and the study did not appear to have ethical concerns (M. Egan, personal communication, January 22, 2024).

2.7 *Analysis*

Using the myriad resources available through the internet, I taught myself R for the purposes of analyzing the results of this study. R is a statistical programming language (The R Foundation, n.d.) which I employed via the integrated development environment RStudio (Posit Software, n.d.). I chose R because of its prevalence, capabilities, and free availability. Additionally, many packages are available to extend core R; I used packages such as *ggplot2* (Hadley, Chang, *et al.*, 2024), *dplyr* (Hadley *et al.*, 2023), *tidyr* (Hadley, Vaughan, *et al.*, 2024), and *forcats* (Hadley, 2023) (all of which *tidyverse* (Wickham *et al.*, 2019) includes) as well as *ggdist* (Kay, 2024), *ggthemes* (Arnold, 2024), and *vtable* (Huntington-Klei, 2023). I also occasionally utilized Jamovi, a graphic user interface for R (The Jamovi Project, n.d.).

I performed statistical analysis. At the start, I viewed data collected from the survey in tabulated and visualized formats to aid in data cleaning measures. Data cleaning also involved the application of *descriptive statistics* (*e.g.*, mean and median), which I applied to minor and major variables alike – 18 variables in total – to describe the sample itself in terms of frequency and distribution (Boslaugh, 2013; Kumar, 2014). Then I used *inferential statistics* to produce further numeric descriptors (statistics) about the sample that might also describe the population generally through the computation of tests of variance and regression (Boslaugh, 2013; Kumar, 2014). The next chapter, *Results*, presents the product of this analysis.

3 RESULTS

This chapter presents the results of descriptive statistics from the survey (§3.2) as well as inferential statistics that resulted from hypothesis tests with ANOVA (§3.3), correlation, simple linear regression, and multiple linear regression (§3.4).

3.1 *Data cleaning*

Before describing the results proper, I will note actions I took to *clean* data received:

- One record contained answers at an extreme for 36 out of 40 questions that used a continuous scale of 0 – 100; therefore, I deemed the response unreliable and removed it. Thus, the sample size reduced from 74 to 73 individuals.

- A respondent's education was collected as a continuous variable by number of years of education including non-university education such as primary and secondary school. It may have been that the question was misunderstood: A number of respondents indicated less than 9 yr of education, which seemed atypical for the respective demographic (pertaining to those records) with an age range of 21 – 68 yr and affiliation with Norway or Denmark, countries which have consistently ranked high in the Human Development Index of which education is a component (United Nations Development Programme, 2024). To reconcile this potential miscommunication, rather than make large assumptions (*i.e.*, that a respondent intended a response of *1 yr* to indicate *1 yr of university education* and thus perhaps *13 yr of total education*), with lesser assumptions, I converted the variable from a continuous variable to an ordinal variable with three categories:

< 9 yr	outlier
≥ 9 yr, < 15 yr	partial university education
≥ 15 yr	university education

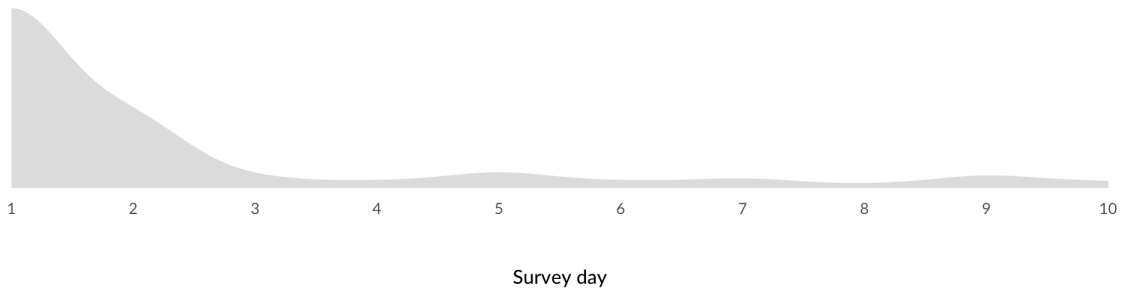
3.2 *Frequencies & distributions*

How many of the 515 761 Facebook Group members (see *§2.5: Population & sample*) saw my call for participation remains unknown; this, in addition to its design as a voluntary survey, means a response rate could not be calculated. Here and for all results and analyses, the sample size, *n,* came to 73.

3.2.1 *Temporality*

A total of 73 valid responses were collected over the 15 day window for which the survey was open, though no new responses were recorded after the Day 10.

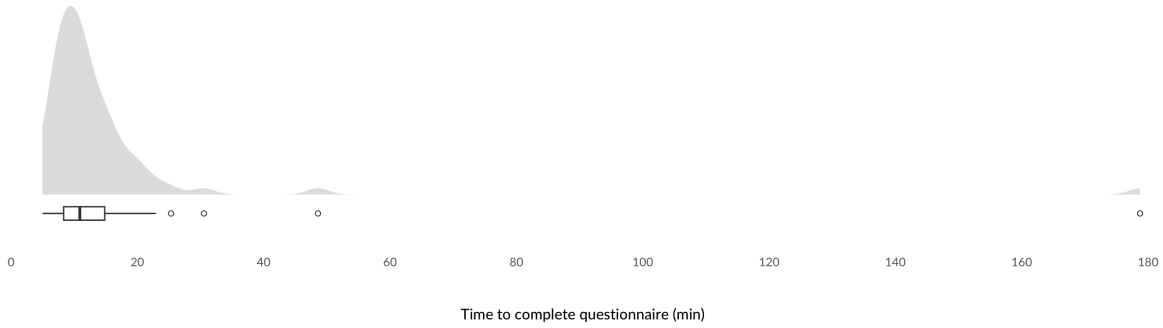
Figure 2
Response intake by day of survey opening



The median and mean response times came to approximately 11 min and 15 min. One response recorded an answer time of 179 min. Nettskjema records the time a respondent spends on a questionnaire from when they begin until submission without pause (Nettskjema IT Support, personal communication, March 21, 2024). Given the distribution of other response times, I considered treating this data point as well as one or more other large values as exceptional outliers and nullifying these values (but not the entire records), but I retained them to keep a count of $n = 73$ consistent throughout since I did not consider the variable in further analyses.

Figure 3

Time to complete questionnaire



3.2.2 *Demographics*

The sample yielded an age range of 54 yr (21 – 75 yr) and a balanced distribution of binary genders. Seventy-one percent (71 %) were unmarried, and most (80 %) had a university education.

Table 5

Age

Variable	Mean	Median	Std. dev.	Min.	Max.
Age	38,53	35	12,69	21	75

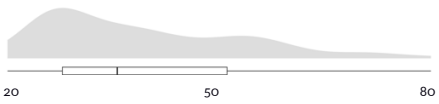


Table 6

Gender

Gender	Count	Percentage
Man	38	52,05 %
Woman	33	45,21 %
Not listed	2	2,74 %

Table 7

Marital status

Marital status	Count	Percentage	Count
Unmarried	52	71,23 %	
Married	21	28,77 %	

Table 8

Level of education

Education	Count	Percentage	Count
University	58	79,45 %	
Partial university	6	8,22 %	
Outlier	9	12,33 %	

All five Nordic countries were represented with the highest percentage (45 %) of respondents affiliating with Norway:

Table 9

Country affiliation

Country	Count	Percentage	Count
Denmark	11	15,07 %	
Finland	9	12,33 %	
Iceland	7	9,59 %	
Norway	33	45,21 %	
Sweden	2	2,74 %	
Other	11	15,07 %	

3.2.3 *Friluftsliv background*

Variables that came from the next set of questions pertained to the general character of one's *friluftsliv* practice. Data types included nominal categorical, ordinal categorical, discrete numeric, and continuous numeric. The variable of *outdoor activity participation* was two-dimensional in that one's skill in an activity indicated participation in the activity as well.

Table 10

Friluftsliv application context

Context	Count	Percentage	Count
Health & well-being	66	90,41 %	
Tourism	27	36,99 %	
Education	20	27,40 %	
Other	25	34,25 %	

Table 11

Outdoor activity participation & skill level

Outdoor activity	Count	Percentage	Count	Skill, low – high
Walking, running, hiking, or snowshoeing	72	98,63 %		
Trekking	70	95,89 %		
Tour ice skating	27	36,99 %		
Cross-country skiing (*langrenn*)	65	89,04 %		
Fjellski (Nordic backcountry)	54	73,97 %		
Randonnée skiing (alpine touring / *topptur*)	45	61,64 %		
Lift-served skiing & snowboarding	60	82,19 %		
Bouldering	35	47,95 %		
Sport climbing	33	45,21 %		
Trad climbing	23	31,51 %		
Ice & mixed climbing	20	27,40 %		
Mountaineering	43	58,90 %		
Road cycling	42	57,53 %		
Mountain biking	38	52,05 %		
Swimming	53	72,60 %		
Freediving	19	26,03 %		
Scuba diving	17	23,29 %		
Surfing & other wave sports	22	30,14 %		
Flat-water paddling & rowing	39	53,42 %		
Whitewater river paddling & rowing	26	35,62 %		
Sea kayaking	48	65,75 %		
Other boating	32	43,84 %		

Outdoor activity	Count	Percentage
Berry-picking & mushroom-picking	58	79,45 %
Horseback riding	22	30,14 %
Fishing	39	53,42 %
Hunting	18	24,66 %

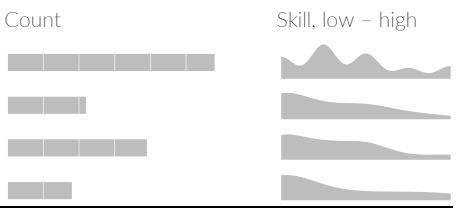


Table 12

Tour partners & tour duration on scales from 0 to ≥ 10

Variable	Mean	Median	Std. dev.	Min.	Max.
Tour partners	2,86	2	2,22	0	10
Tour duration	2,12	2	1,82	0	10

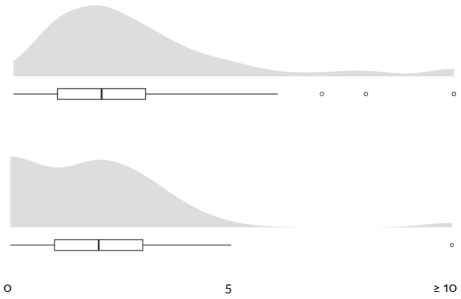
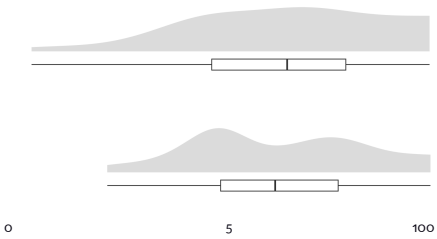


Table 13

Preferred landscape on scales from 0 to 100

Landscape type	Mean	Median	Std. dev.	Min.	Max.
Tended – Wild	63,94	66	22,33	5	100
Dense – Spacious	63,44	63	20,13	23	100



3.2.4 *Key variables*

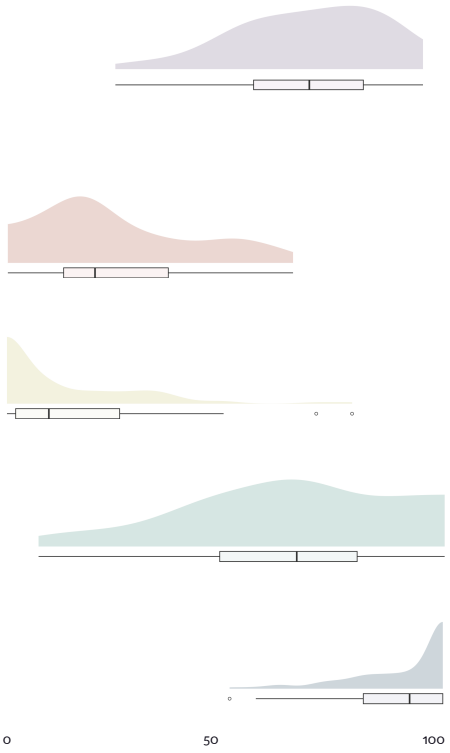
Though the *Sublime Emotion toward Nature Scale* (Bethelmy & Corraliza, 2019) I utilized contained sub-domains of *awe* and *inspiring energy*, the results for my study's independent (predictor) variable, rating of *sublime experience during friluftsliv experiences*, considered only the arithmetic mean (average) of all 18 questions together.

The dependent (outcome) variable, *environmental perspective*, was four-part: the perspectives of *apathy, anthropocentrism, connectedness,* and *emotional affinity.* Like the independent variable, I considered each sub-domain as the mean of the five rating questions that pertained to each perspective.

Table 14

Key independent & dependent variables on scales from 0 to 100

Variable	Mean	Median	Std. dev.	Min.	Max.
Sublime	69,03	69,28	16,20	25,00	95,22
Anthropocentrism	15,52	9,60	16.95	0,00	79,00
Apathy	25,33	20,00	17,84	0,00	65,40
Connectedness	63,18	66.20	23.82	7.20	100,00
Emotional affinity	88,94	92,40	51,06	51.20	100,00



With descriptive statistics now addressed above, the remainder of this chapter will cover analysis of results using inferential statistics.

3.3 *Variances*

For all tests, the significance level assumed $\alpha = 0{,}05$. Per convention in R output, asterisks $(*)$ or a period $(\cdot)$ categorize significance level p to facilitate reading results:

***	$p \leq 0.001$
**	$0.001 < p \leq 0.01$
*	$0.01 < p \leq 0.05$
·	$0.05 < p \leq 0.1$

Data was assumed to be fit for tests that follow.

Application of friluftsliv

The first question in the *friluftsliv* background section of the questionnaire sought the general contexts of a respondent's practice of *friluftsliv*. I allowed this to serve as a background even to the study's primary independent variable (rating of *sublime friluftsliv experience*) and hypothesized whether this facet might have influence. The null hypothesis is denoted by H_0 while H_1 denotes the alternative hypothesis:

> H_0: *No difference exists in the rating of sublime friluftsliv experience in different application contexts.*
>
> H_1: *A difference exists in the rating of sublime friluftsliv experience in different application contexts.*

The predictor variable, *application context*, was a nominal categorical variable and the outcome variable, rating of *sublime friluftsliv experience* (using the mean), was continuous numeric. I assumed a normal distribution and performed a one-way analysis of variance (AVONA) test:

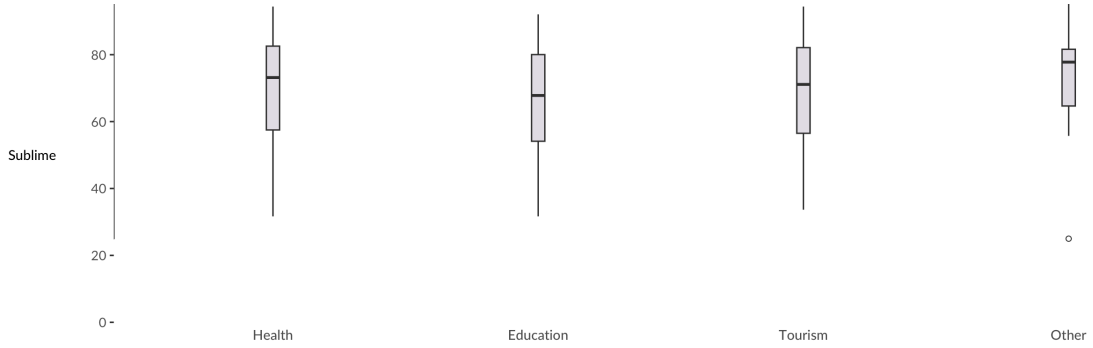
Table 15

ANOVA results for differences between ratings of the sublime across application contexts

	df	Sum of squares	Mean square	*F* value	*p* value
Application of *friluftsliv*	3	463	154,2	0,59	0,62
Residuals	133	34 780	261,5		

Figure 4

Distribution of mean ratings of sublime experience across general contextual applications



The results showed no significant difference between applications. Therefore, the null hypothesis failed rejection, and I concluded there was no significant difference in *sublime friluftsliv experience* between application contexts.

Country

Nordic nations number five, and though they share similarities, they also possess their own identities. To investigate any difference, I used the following hypothesis-pair:

> H_0: *No difference exists in rating of sublime friluftsliv and environmental perspectives in sub-samples from different countries.*
>
> H_1: *A difference exists in the rating of sublime friluftsliv and environmental perspectives in sub-samples from different countries.*

An ANOVA test was again appropriate. The results showed that a significant difference existed between countries for ratings of *the sublime* and *connectedness* but no significance in the differences in other ratings:

Table 16

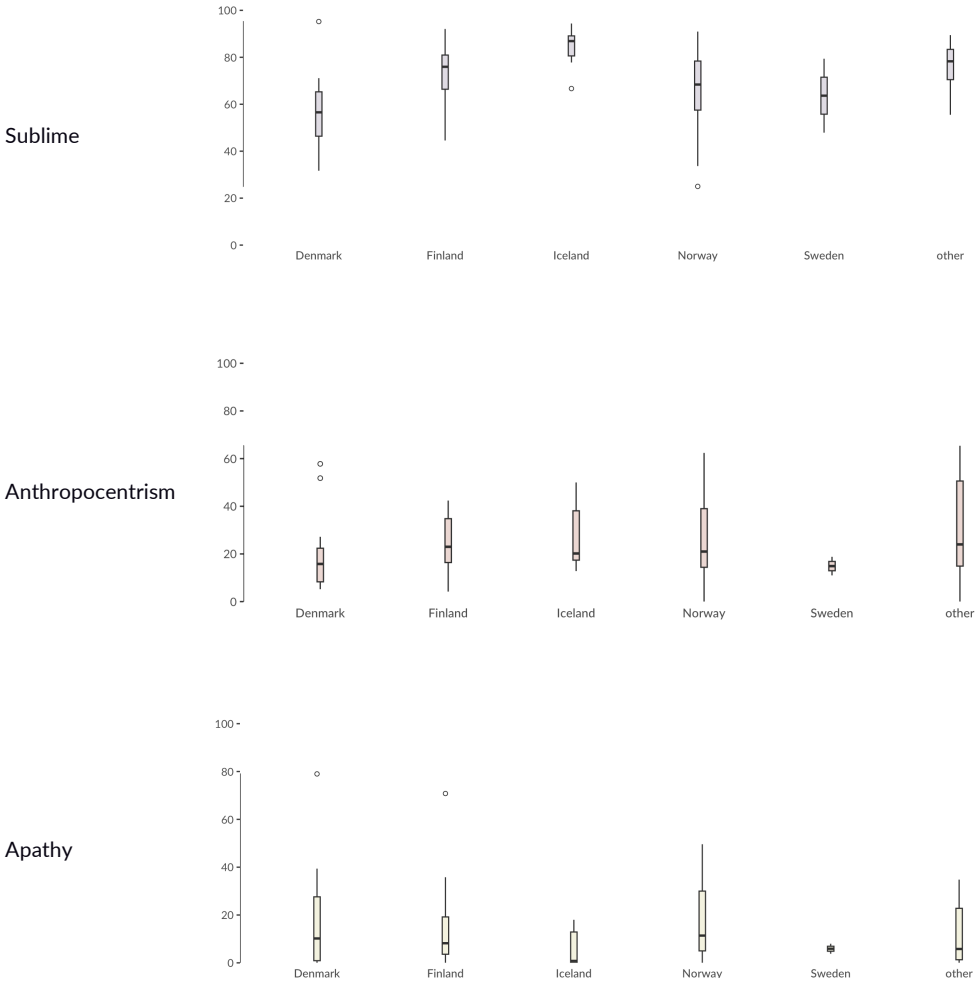
ANOVA results for differences between ratings of the sublime & perspective across countries

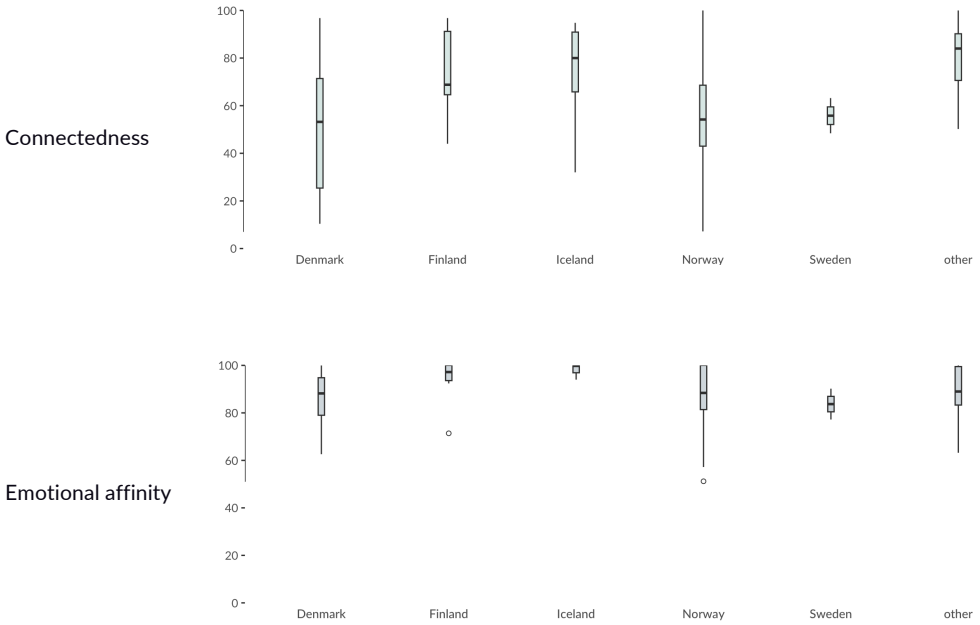
Perspective	df	Sum of squares	Mean square	*F* value	*p* value	
Sublime	5	3 824	764,9	3,40	0,0085	**
Residuals	67	15 072	224,9			

Perspective	df	Sum of squares	Mean square	*F* value	*p* value
Anthropocentrism	5	778	155,7	0,47	0,80
Residuals	67	22 129	330,3		
Apathy	5	1 213	242,7	0,84	0,53
Residuals	67	19 473	290,6		
Connectedness	5	8 285	1 656,9	3,41	0,0084 **
Residuals	67	32 570	486,1		
Emotional affinity	5	1 221	244,2	1,77	0,13
Residuals	67	9 244	138,0		

Figure 5

Ratings of sublime & environmental perspectives by country





3.4 *Associations*

This section of the results addresses the research question directly, which, to repeat, stands:

How does sublimity of an experience in contemporary friluftsliv relate to environmental perspective?

First, I will present models of simple linear regression between the predictor variable (*sublime experience*) and each of the four outcome variables (*environmental perspective*). Then, I show results that involve covariates pertaining to the context of respondents' *friluftsliv* experiences to test correlations that consider interaction between predictors.

The notation of β_0 represents the intercept of the outcome (y) axis while β_1 and so on represent coefficients of predictors (x_1) and ε the error of the linear equation of the form (Boslaugh, 2013):

$$y = \beta_0 + \beta_1 x_1 + \varepsilon$$

3.4.1 *Key variables*

Correlation

Before composing a regression model for association, I tested for correlation:

> *H_0: Sublime friluftsliv experiences do not correlate with environmental perspective.*
>
> *H_1: Sublime friluftsliv experiences correlate with environmental perspective.*

Results yielded a non-zero Pearson correlation coefficient, *r,* with significance for three out of the four perspectives: a negative correlation between *sublime friluftsliv experience* and *apathy* and a positive correlation between *the sublime* and *connectedness* and *emotional affinity:*

Table 17

Correlation between sublime friluftsliv experience & environmental perspective

Perspective	*r*	df	*t* value	*p* value	
Anthropocentrism	−0,22	71	−1,94	0,056	
Apathy	−0,33	71	−2,92	0,0047	**
Connectedness	0,55	71	5,61	$3{,}7 \times 10^{-7}$	***
Emotional affinity	0,66	71	7,32	$3{,}1 \times 10^{-10}$	***

Regression

Potential association between key variables was bivariate. Here I conducted a test for the hypotheses:

> *H_0: Sublime friluftsliv experiences do not associate with environmental perspective.*
>
> *H_1: Sublime friluftsliv experiences associate with environmental perspective.*

Table 18 shows the results of *sublime friluftsliv experience* (β_1) as a predictor of the four environmental perspectives. The results suggest that, according to the data of this study, *sublime friluftsliv* makes a predictor only marginally statistically significant for views of *anthropocentrism*

and *apathy* but a strong predictor for ecocentric views of *connectedness* and *emotional affinity*. Thus, if adhering strictly to the stated significance level, H_0 cannot be rejected for *anthropocentrism* but can be rejected for the remaining three perspectives. This leads to the conclusion that *sublime friluftsliv experiences* associated with environmental perspectives of *apathy* (with negative association), *connectedness,* and *emotional affinity* (both with positive association).

Table 18

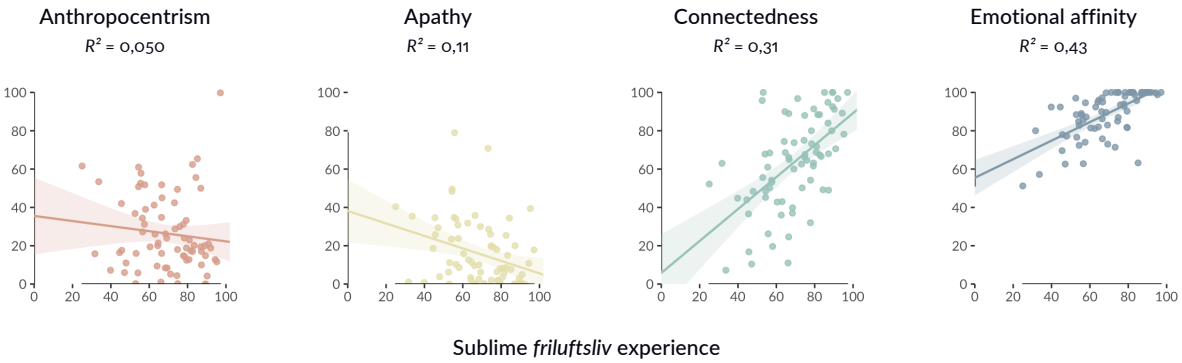
Linear regression between sublime friluftsliv experience (β_1) & environmental perspective

Perspective	Coefficient	Estimate	Std. error	*t* value	*p* value	
Anthropocentrism	β_0	42,40	9,02	4,70	$1{,}3 \times 10^{-5}$	***
	β_1	−0,25	0,13	−1,94	0,056	·
Apathy	β_0	39,16	8,32	4,71	$1{,}2 \times 10^{-5}$	***
	β_1	−0,34	0,12	−2,92	0,0047	**
Connectedness	β_0	6,95	10,30	0,68	0,50	
	β_1	0,81	0,15	5,61	$3{,}7 \times 10^{-7}$	***
Emotional affinity	β_0	55,26	4,73	11,69	$< 2 \times 10^{-16}$	***
	β_1	0,49	0,07	7,32	$3{,}1 \times 10^{-10}$	***

As a bivariate test, a graphical representation is not overly complex and can visualize regression fitting. Graphs use a 1:1 ratio for scales with rating of *sublime friluftsliv experience* on the *x*-axis and respective environmental perspectives on the *y*-axes; axes also form a *range-frame* (Tufte, 2007) to communicate range of values:

Figure 6

Regression fits atop data points & bands of 95 % confidence



Synthesis

In order to incorporate the results above so that they might relate to the continuum format of environmental perspective illustrated in Figure 1 (p. 5), I combined *connectedness* and *emotional affinity* into a single perspective of *ecocentrism*. I employed the same hypotheses as the regression tests above; results follow (including repetition of the other two remaining perspectives):

Table 19

Correlation between sublime friluftsliv experience & environmental perspective

Perspective	*r*	df	*t* value	*p* value	
Anthropocentrism	−0,22	71	−1,94	0,056	
Apathy	−0,33	71	−2,92	0,0047	**
Ecocentrism	0,70	71	8,20	$7{,}1 \times 10^{-12}$	***

Table 20

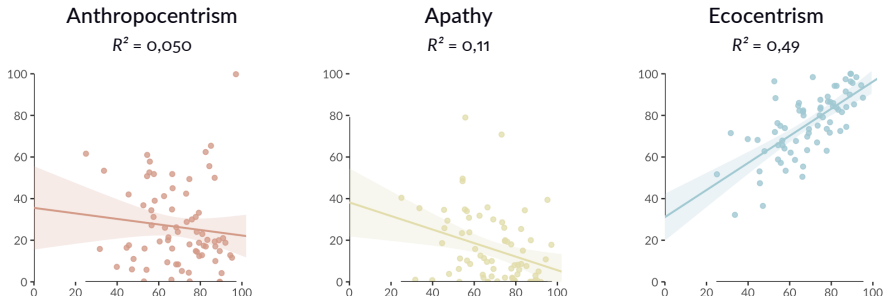
Linear regression between sublime friluftsliv experience (β_1) & environmental perspective

Perspective	Coefficient	Estimate	Std. error	*t* value	*p* value	
Anthropocentrism	β_0	42,40	9,02	4,70	$1{,}3 \times 10^{-5}$	***
	β_1	−0,25	0,13	−1,94	0,056	.

Perspective	Coefficient	Estimate	Std. error	*t* value	*p* value	
Apathy	β_0	39,16	8,32	4,71	$1{,}2 \times 10^{-5}$	***
	β_1	−0,34	0,12	−2,92	0,0047	**
Ecocentrism	β_0	31,10	5,63	5,53	$5{,}1 \times 10^{-7}$	***
	β_1	0,65	0,08	8,20	$7{,}1 \times 10^{-12}$	***

Figure 7

Regression fits atop data points & bands of 95 % confidence



3.4.2 *Covariates*

The inclusion of covariates introduced potential interaction between the rating of *sublime friluftsliv* and additional characteristics of *friluftsliv* practice and any association this combination might have with an environmental perspective. This section covers hypothesis testing related to these covariates.

Activity & skill

For this test, the variable of skill in an activity, which was collected as an ordinal categorical variable, was converted to a continuous numeric variable with a range of 1 – 5 where *novice* took a value of 1 and *expert* took a value of 5. This conversion made the simplified assumption of equal intervals between skill levels. Hypotheses were:

H_0: In combination with skill level in an activity, sublime friluftsliv experiences do not associate with environmental perspective.

H_1: In combination with skill level, sublime friluftsliv experiences associate with environmental perspective.

Across the combination of 27 *friluftsliv* activities with 4 environmental perspectives (108 regression models, which I ran in R with a *for-loop*), only 5 interaction terms yielded coefficients that satisfied the significance level. Table 21 presents the activities to which those apply and omits those without significant values for β_3. These regression equations take the form:

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_1 x_2 + \varepsilon$$

where the term $\beta_3 x_1 x_2$ represents interaction between predictors.

Table 21

Activities[2] with significant coefficients of interaction terms (β_3, sublime × skill)

Perspective	Activity	Coefficient	Estimate	Std. error	*t* value	*p* value	
Anthropocentrism	Flat-water paddling	β_0	64,53	12,21	5,29	$1{,}4 \times 10^{-6}$	***
		Sublime	−0,54	0,17	−3,17	0,0022	**
		Skill	−15,26	5,91	−2,58	0,012	*
		Sublime × Skill	0,20	0,08	2,45	0,017	*
Apathy	Flat-water paddling	β_0	57,56	11,29	5,10	$2{,}9 \times 10^{-6}$	***
		Sublime	−0,61	0,16	−3,87	$2{,}4 \times 10^{-4}$	***
		Skill	−13,04	5,47	−2,38	0,020	*
		Sublime × Skill	0,19	0,08	2,48	0,016	*
Connectedness	*none*						

[2] Some terms use abbreviated forms.

Perspective	Activity	Coefficient	Estimate	Std. error	*t* value	*p* value	
Emotion	Alpine ski touring	β_0	68,59	6,29	10,91	$1{,}2 \times 10^{-16}$	***
		Sublime	0,34	0,09	3,87	$2{,}3 \times 10^{-4}$	***
		Skill	−6,20	2,27	−2,73	0,0081	**
		Sublime × Skill	0,07	0,03	2,12	0,038	*
	Lift-served skiing	β_0	79,43	8,22	9,67	$1{,}9 \times 10^{-14}$	***
		Sublime	0,20	0,11	1,71	0,092	·
		Skill	−8,97	2,61	−3,44	0,0010	***
		Sublime × Skill	0,11	0,04	2,95	0,0043	**
	Flat-water paddling	β_0	46,62	6,45	7,23	$5{,}1 \times 10^{-10}$	***
		Sublime	0,62	0,09	6,94	$1{,}7 \times 10^{-9}$	***
		Skill	6,25	3,12	2,00	0,049	*
		Sublime × Skill	−0,10	0,04	−2,22	0,030	*

The results here suggest there tends to exist mild additive effects (or, in one case, a subtractive effect) as one achieves a higher level of skill in the respective activity.

Tour partners

The number of preferred *tour partners* was an ordinal categorical variable. But if allowed the laxity to treat this as a continuous variable, it could more easily act as an interacting covariate:

> H_0: *In combination with number of tour partners, sublime friluftsliv experiences do not associate with environmental perspective.*
>
> H_1: *In combination with number of tour partners, sublime friluftsliv experiences associate with environmental perspective.*

Recall that possible response values ranged from 0 to 10 where 10 was presented as ≥ 10. Using again the mean ratings of *sublime friluftsliv experience* and environmental perspectives, Table 22 displays the regression models with interaction between number of tours partners. The term that pertains to *anthropocentrism* was the only interaction term with significance, which indicates that an anthropocentric perspective weakens slightly with an increase in sublimity of experience despite a marked positive coefficient (12,24) when sublimity is negated.

Table 22

Interaction between predictors of sublime experience & number of tour partners

Perspective	Coefficient	Estimate	Std. error	*t* value	*p* value	
Anthropocentrism	β_0	17,33	14,03	1,24	0,22	
	Sublime	−0,02	0,20	−0,10	0,92	
	Partners	12,24	4,59	2,67	0,0096	**
	Sublime × Partners	−0,12	0,06	−2,06	0,04	*
Apathy	β_0	18,52	13,79	1,34	0,18	
	Sublime	−0,11	0,19	−0,55	0,58	
	Partners	9,18	4,51	2,03	0,05	*
	Sublime × Partners	−0,11	0,06	−1,79	0,08	·
Connectedness	β_0	29,24	17,41	1,68	0,10	·
	Sublime	0,51	0,25	2,07	0,04	*
	Partners	−8,94	5,70	−1,57	0,12	
	Sublime × Partners	0,12	0,08	1,58	0,12	
Emotional affinity	β_0	49,66	8,09	6,14	$4{,}7 \times 10^{-8}$	***
	Sublime	0,57	0,11	4,96	$4{,}8 \times 10^{-6}$	***
	Partners	2,20	2,65	0,83	0,41	
	Sublime × Partners	−0,03	0,03	−0,86	0,39	

Duration

Similar to the *number of tour partners,* I allowed the typical *tour duration* (given in number of nights) to act as a continuous variable so as to facilitate a test of interaction:

> *H_0: In combination with tour duration, sublime friluftsliv experiences do not associate with environmental perspective.*
>
> *H_1: In combination with tour duration, sublime friluftsliv experiences associate with environmental perspective.*

Table 23

Interaction between predictors of sublime experience & tour duration (in number of nights)

Perspective	Coefficient	Estimate	Std. error	*t* value	*p* value	
Anthropocentrism	β_0	55,33	13,65	4,05	$1{,}3 \times 10^{-4}$	***
	Sublime	−0,37	0,19	−1,92	0,059	·
	Duration	−8,56	5,64	−1,52	0,13	
	Sublime × Duration	0,09	0,07	1,22	0,22	
Apathy	β_0	61,76	12,39	4,99	$4{,}4 \times 10^{-6}$	***
	Sublime	−0,63	0,17	−3,61	$5{,}7 \times 10^{-4}$	***
	Duration	−12,72	5,11	−2,49	0,015	*
	Sublime × Duration	0,16	0,07	2,40	0,019	*
Connectedness	β_0	7,59	15,86	0,48	0,63	
	Sublime	0,76	0,22	3,41	0,0011	**
	Duration	1,09	6,55	0,17	0,87	
	Sublime × Duration	0,01	0,08	0,07	0,94	
Emotional affinity	β_0	44,69	7,15	6,25	$3{,}0 \times 10^{-8}$	***
	Sublime	0,63	0,10	6,26	$2{,}9 \times 10^{-8}$	***
	Duration	5,75	2,95	1,95	0,056	·
	Sublime × Duration	−0,07	0,04	−1,95	0,056	·

Landscape

Typical landscapes preferences were collected as continuous variables. There were two measures: *wildness* and *spaciousness*, but they can both be considered facets of landscape preference. Thus, the hypotheses:

> *H_0: In combination with landscape preference, sublime friluftsliv experiences do not associate with environmental perspective.*
>
> *H_1: In combination with landscape preference, sublime friluftsliv experiences associate with environmental perspective.*

Results described a negative interaction effect of significance between predictors of *sublime experience* and *landscape wildness* with an outcome of *connectedness*, albeit the coefficient was low in magnitude (−0,018). Similarly, the coefficient for *sublime* × *wildness* as a predictor of *anthropocentrism* described a mentionable increase in *anthropocentrism* if the *p*-value (0,051) is rounded. The lack of significant outcomes in other cases failed to reject the null hypothesis, which lead to the conclusion that landscape characteristics measured had no effect on environmental perspective.

Table 24

The sublime & landscape preference as predictors of environmental perspective

Perspective	Landscape	Coefficient	Estimate	Std. error	*t* value	*p* value	
Anthropocentrism	Wildness	β_0	100,12	29,32	3,42	0,0011	**
		Sublime	−1,04	0,43	−2,43	0,018	*
		Wildness	−0,95	0,46	−2,09	0,041	*
		Sublime × Wildness	0,013	0,0065	1,99	0,051	·
	Spaciousness	β_0	67,18	32,29	2,08	0,041	*
		Sublime	−0,69	0,44	−1,58	0,12	
		Spaciousness	−0,39	0,52	−0,74	0,46	
		Sublime × Spaciousness	0,0069	0,0070	0,99	0,33	
Apathy	Wildness	β_0	78,51	27,32	2,87	0,0054	**
		Sublime	−0,97	0,40	−2,42	0,018	*
		Wildness	−0,62	0,43	−1,46	0,15	
		Sublime × Wildness	0,0097	0,0060	1,60	0,11	
	Spaciousness	β_0	8,19	30,00	0,27	0,79	
		Sublime	0,0611	0,41	0,15	0,88	
		Spaciousness	0,52	0,49	1,08	0,28	
		Sublime × Spaciousness	−0,0068	0,0065	−1,05	0,30	

Perspective	Landscape	Coefficient	Estimate	Std. error	*t* value	*p* value	
Connectedness	Wildness	β_0	−71,65	33,05	−2,17	0,034	*
		Sublime	1,94	0,48	4,01	$1{,}5 \times 10^{-4}$	***
		Wildness	1,28	0,51	2,49	0,015	*
		Sublime × Wildness	−0,018	0,0073	−2,46	0,016	*
	Spaciousness	β_0	−3,01	37,31	−0,08	0,94	
		Sublime	1,02	0,51	2,00	0,049	*
		Spaciousness	0,15	0,60	0,25	0,80	
		Sublime × Spaciousness	−0,0030	0,0080	−0,38	0,71	
Emotional affinity	Wildness	β_0	33,77	15,58	2,17	0,034	*
		Sublime	0,77	0,23	3,40	0,0011	**
		Wildness	0,36	0,24	1,47	0,15	
		Sublime × Wildness	−0,0047	0,0034	−1,37	0,18	
	Spaciousness	β_0	75,14	16,43	4,57	$2{,}1 \times 10^{-5}$	***
		Sublime	0,33	0,22	1,46	0,15	
		Spaciousness	−0,36	0,27	−1,36	0,18	
		Sublime × Spaciousness	0,0032	0,0035	0,90	0,37	

In the preceding section, statistical hypothesis testing informed ANOVA and linear regression tests. The next chapter will discuss these results further.

4 DISCUSSION

Key results – those of association (§3.4) – showed strong significance between a predictor of *sublime friluftsliv experience* and outcomes of perspectives of both *connectedness* and *emotional affinity*, a lesser but still significant association with the outcome of *apathy*, and a level of association with the outcome of *anthropocentrism* that fell slightly outside the level of significance.

When testing with covariates, the only *friluftsliv* activities where *skill* and *the sublime* were synergistic in their influence on environmental perspective were *flat-water paddling & rowing* as it related to *apathy* and *ski touring* and *resort skiing* as they related to *emotional affinity* while *flat-water paddling & rowing* had an anti-synergist effect on *anthropocentrism* and *emotional affinity*. Interaction between *the sublime* and number of *tour partners* affected only *anthropocentrism* and anti-synergistically so; interaction between *the sublime* and *tour duration* affected only *apathy*. *The sublime* combined with *landscape preference* demonstrated significance only with the *wildness* facet of landscape and the *connectedness* perspective and in an anti-synergistic way. This section discusses these and other results.

4.1 Differences

4.1.1 Application of friluftsliv

An ANOVA test (Table 15) returned no significant difference ($p = 0{,}62$) between common possible applications contexts of *friluftsliv* in the data. This means contexts were well-represented in the survey. This variable was also collected as a multiple-selection input, and 90 % of respondents included *health & well-being* in their selections (Table 10). This option in the question – as with the other response options – drew from Bigell's (2022) description of *friluftsliv*. The World Health Organization (2024) defined health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (p. 1). To apply this to the data, because *friluftsliv* often involves physical activity unfit for the physically unwell and, therefore, *friluftsliv*-goers are likely to already have good physical well-being, we are left with the suggestion that those who indicated they engage in *friluftsliv* for *health & well-being* do so for

physical *salutogenesis*, improving an already healthful state (Antonovsky, 1987). Alternatively or additionally, if physical well-being is satisfied, then mental and social well-being remain.

Mental well-being can relate to ideas of *eudaimonia*, a general happiness in life (Vittersø, 2016), and nature connectedness may benefit eudaimonic well-being (Jenkins *et al.*, 2022; Lima & Mariano, 2022; Pritchard *et al.*, 2020). Eudaimonia is a long-term prospect, and social well-being must also form a part. An understanding of *friluftsliv* as an encounter between an individual and nature and between society and nature, both where social roles are suspended, describes how *friluftsliv* stands functionless but beneficial in a modern society that values instrumentalization, and this departure holds worth itself (Bigell, 2022).

Still, the ambiguous *Other* response option received selection by 34 % of respondents. Perhaps a text input that coincided with this selection would have offered insight. Nettskjema did not offer this ability, though I could have constructed a conditional question instead, albeit adding complexity to the form. In any case, this *other* application of *friluftsliv* remains something for further investigation. Likewise, to relate to discussion of the intrinsic value of nature in *friluftsliv* (Gelter, 2007; Vigane & Sæther, 2020), it could have been interesting to offer a defined option in direct opposition to the functionality of the others, such as *For its own value in and of itself.*

4.1.2 Country

Authors have described *friluftsliv* as a part of Norwegian national identity (Bigell, 2022; Gåsdal, 2007; Hofmann *et al.*, 2018; Nansen, 1921/1994; Nedrelid, 1991; Vigane & Sæther, 2020; Ween & Abram, 2012). In this study, however, ANOVA testing described no significant difference between countries recorded for 3 out of 5 key variables; *sublime friluftsliv* and *nature connectedness* did show a significant difference ($p = 0{,}0085$; $p = 0{,}0084$) (Table 16), though if these two variables might represent a measure of strength of *friluftsliv*, median responses related to Norway ranked not highest. What's more, ratings of the other ecocentric perspective, *emotional affinity,* did not have a difference between countries.

One explanation for this could be that the proportion of Norwegians in the sample numbered at least three-times as any other country (33 respondents, 45 %; Table 9), so distribution was unbalanced between countries. Still, given the small size of the sample ($n = 73$),

this stands as a tenuous explanation but challenges ideas of national exclusivity to ecocentric *friluftsliv*.

4.2 *Associations*

4.2.1 *Key variables*

I repeat the research question of this thesis:

How does sublimity of an experience in contemporary friluftsliv relate to environmental perspective?

Key variables showed strong positive associations between *sublime friluftsliv experience* and the ecocentric perspectives of *connectedness* ($p = 3{,}7 \times 10^{-7}$) and *emotional affinity* ($p = 3{,}1 \times 10^{-10}$), an *apathetic* perspective decreased with an increase in *sublimity* ($p = 0{,}0047$), and *anthropocentrism* also had a negative association on the border of statistical significance ($p = 0{,}056$).

The ecocentric portion of the results largely agree with existent literature as expected. Adherents to the Romantic movement sought experiences of the sublime in nature in order to feel the vastness and power of natural forces erased by the objectivity of modernity (Loynes & Smallwood, 2022). This represents feelings both of connectedness to the non-human world by seeking its presence and an emotional affinity by desiring this connection in the first place. But those most familiar with nature may become somewhat immune to fear in nature (Gelter, 2000) – a part of a sublime experience – and so, in recollection when answering questions of the survey, respondents may have focused their memory on the *peaks* and *ends* of remarkable experiences (Fredrickson, 2000).

Study participants may have responded with environmental epiphanies in mind. *Environmental epiphanies* are intense experiences that alter one's relationship with nature (Storie & Vining, 2018; Vining & Merrick, 2012) where the typology includes experiences that involve aesthetics and connectedness. These kinds of experiences might be not anthropocentrically minded *transformational* but better described as *transcendental,* rich with meaning that builds a relationship with the environment (Loynes & Smallwood, 2022). This concept, by no

coincidence, relates to the movement of Transcendentalism, itself a successor of Romanticism, that upheld the goodness of humanity and nature alike if uncorrupted by modern ways: "In short, all good things are wild and free" (Thoreau, 1862, p. 669). Sublime experiences in nature formed a common theme in this school of thought (Emerson, 1836; Muir, 1911; Thoreau, 1854).

Likewise, if a sublime experience inherently begets connectedness and emotion, the results that describe a decrease in environmental apathy with an increase in the sublime also come without surprise. This relates to research that has found non-superficial nature experiences play a part in a complex path to pro-environmental orientation (Barrows *et al.*, 2022; Gainsburg *et al.*, 2023; Høyem, 2020; Martin *et al.*, 2020; Wang & Yu, 2018; Zhang *et al.*, 2014) even though a paradox exists between the consumption associated with the popularity of *friluftsliv*, travel from urban areas to natural places, and the Nordic *hytte* culture of second-homes (Aall *et al.*, 2011; Gurholt & Haukeland, 2019; Næss, 1989; Wolf-Watz, 2014; Xue *et al.*, 2020).

Interestingly, *sublime friluftsliv* did not significantly predict a decrease of *anthropocentric perspective,* which also had the weakest coefficient ($\beta_1 = -0{,}25$) among the four perspectives. This result questions the discussion above regarding how nature experiences may promote ecocentric views and shifts focus to the fact that *friluftsliv* is itself a product of human culture. *Friluftsliv*, as an expression of Romanticism, exists as a socio-cultural phenomenon of nature commune exactly because of a reduction in nature exposure in modern society and culture (Beedie, 2015; Dahle, 1994; de Sales *et al.*, 2018; Nansen, 1921/1994; Timothy, 2013). Given the technological avenues through which they were solicited (Facebook) and through which they responded (Nettskjema), study participants can be assumed to be part of this modernity and thus possess some degree of anthropocentrism in their views. Indeed: a person cannot be entirely non-anthropocentric – that would only amount to ending one's own life.

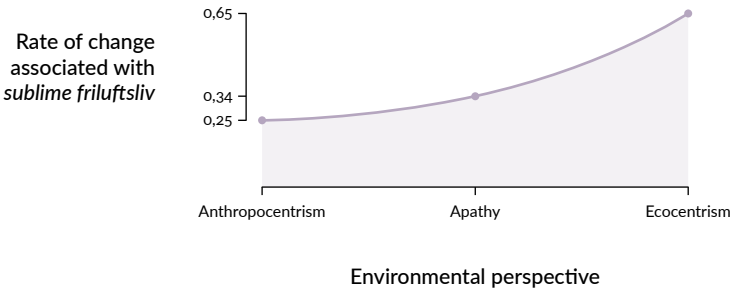
Synthesis

To synthesize these results with the continuum presented in *§1.1.4: Environmental perspectives*, I created a conceptual chart to graphically express the strength of association between *the sublime* and *environmental perspective*. I used the derivates of the regression equations (the β_1 slope coefficients, Table 20) as anchor points for magnitude. *Anthropocentrism* and *apathy* had negative magnitudes, which means that an increase in *the sublime* was associated with less *anthropocentrism* and less *apathy*. Therefore, I conjectured that these negative values might –

with a flip of sign to positive values – instead be interpreted as a tendency toward *ecocentrism*, itself already with a positive sign. As illustrated below, with liberal interpolation between data points, this suggests that *sublime friluftsliv* associated with an increase in *ecocentrism* at a slightly increasing rate along the continuum of environmental perspectives:

Figure 8

Relative associated rate of change between sublime friluftsliv & environmental perspective



4.2.2 *Covariates*

Activity & skill

Friluftsliv is often active, and skill in an activity is seldom binary. *Skill* held significance as a covariate alongside *sublime friluftsliv* as predictors of environmental perspective in only 3 out of 27 (11 %) activities measured (Table 21). Synergistic association in ecocentric directions occurred only with *alpine ski touring* and *lift-served skiing* with interaction related to *emotional affinity*. These findings may relate to the naturalistic value of the biophilia hypothesis. *Biophilia* is an innate valuation of life (Wilson, 1984), and the *naturalistic* value – one of biophilia's nine values – describes satisfaction from contact with nature and involves development of outdoor skills (Lumber *et al.*, 2017). Technical skill in physical outdoor activity involves the body and unavoidably contact with nature (Kvaløy Sætereng, 1994). Likely felt with multiple senses and with rhythm (Ingold, 2011), skill and specialization may enhance emotional connection to nature (Mullins, 2014), and this could describe the activity of skiing well.

Flat-water paddling & rowing appeared as the third activity but with a negative interaction effect for *emotional affinity*. This contradicted research that found skill to play an important role in *becoming* – a blurring of Cartesian dualism (Deleuze & Guattari, 1987) – during a multi-day

canoe trip (Mikaels & Asfeldt, 2017). In a similarly unexpected way, results that pertained to the non-ecocentric perspectives of *anthropocentrism* and *apathy*, which lie apart from ecocentrism and *emotional affinity*, resulted in positive interaction effects, which means that higher degrees of *the sublime* combined with higher *skill* associated with stronger views of *anthropocentrism* and *apathy*. It may be that flat-water paddling and rowing does not demand skill enough to associate with ecocentric perspectives: another study (albeit differently designed) showed that the similar but perhaps more technically demanding activities of whitewater kayaking and rafting positively associated with emotional connection (Bricker & Kerstetter, 2000) even though this result with whitewater boating did not appear in my survey.

No activities showed interaction related to *connectedness*, but connection with nature requires no skill: Ever and unavoidably do we *interbreathe* with nature (Abram *et al.*, 2020), exchanging our own breaths with those exhalations of the plant kingdom, we together with the rest of the biosphere inhaling an atmosphere volcanically billowed from the geological lungs of the living Earth, Gaia (Lovelock, 1979/2000). More cynically, in a way of *disconnectedness* (T. Beery *et al.*, 2023), anthropogenic atmospheric waste from humanity's surging production spews a toxic breath into the air that mixes into our blue planet's oceans also affecting life below the waves in ways like coral reef bleaching (Hoegh-Guldberg, 2011; IPCC, 2023).

Tour partners

Romanticism valued solitude and respite from cities and their crowds. The number of *tour partners* variable showed no interaction of significance in perspectives of *apathy, connectedness,* nor *emotional affinity*. This suggests that any relationship between *sublime friluftsliv* and these environmental perspectives stood apart from experiencing nature alone or in groups. While extant scholarly literature includes mention of effects of experiences alone in nature on environmental perspectives, most literature and their findings focus on personal *transformational* development and not *transcendental* outcomes (Daniel *et al.*, 2010, 2014; Knapp & Smith, 2005). Cast as entertainment, participants in the Danish reality television program *Alone in the Wilderness* found their experiences reflective but more inwards toward their own life than to their relationship with nature (Andkjaer & Ishoi, 2023).

Meanwhile, results showed a decrease in *tour partners* that allowed *the sublime* to more strongly associate with weaker views of *anthropocentrism* ($\beta_3 = -0{,}12$ with $p = 0{,}04$; Table 22).

This could mean that *friluftsliv* tours with fewer partners may facilitate sublime experiences that lessen anthropocentrism, but such a combination may not have the power to pull perspectives past apathy and into ecocentrism. Thus, group size may have little to do with ecocentrism in contemporary times. Outward Bound, an experiential education program with a multi-national presence that celebrates *solo* experiences (Outward Bound, 2017; Outward Bound International, 2024), exemplifies this in their instrumentalization of nature not for *friluftsliv* in the sense of human–nature holism but for the benefit of human participants and their lives in modern society.

It is also worth noting that simple association of only *sublimity* with *anthropocentrism* was insignificant to begin with ($p = 0{,}056$; §3.4.1), and most respondents preferred a low number of tour partners (3 or fewer; Table 12), so this interaction began already with a weak foundation.

Duration

Results showed an interaction effect only for the perspective of *apathy* ($\beta_3 = 0{,}16$ with $p = 0{,}019$; Table 23). Given the positive coefficient, this means that higher ratings of *the sublime* combined with longer tours tended to yield stronger ratings of *apathy*. This was opposite of expectations as one might have expected positive interactions for *connectedness* and *emotional affinity*. Though the results of simple regression showed a strong significance ($\beta_1 = -0{,}34$ with $p = 0{,}0047$), the distribution of responses for *tour duration* put 48 of 73 responses (66 %) at 2 nights for fewer and 64 responses (88 %) at 3 nights or fewer (Table 12). This amount of time may prove inadequate for one to adjust in sensitivity to nature and its cycles, and a week or weeks may be necessary (Næss, 1989); even longer durations still may be required to abate conceptions of a nature–culture dichotomy (Lund, 2022) and decelerate from a technologically saturated *hypermodernity* (Armitage, 1999; Varley & Semple, 2015).A long duration like this may provide aesthetic conditions for finding the *essence* of an experience and evolving one's interpretation of *being-in-the-world* (Merleau-Ponty, 1945/2012; Quay, 2013).

What could be interesting in this topic of time is data pertaining to *frequency* of *friluftsliv* tours, which I did not collect. We cannot expect respondents to spend a majority of their lives on tour, so a how often they take to their outdoor pursuits could fill a gap in the description of the amount of time they spend in nature.

Landscape

*Land*scapes and not *city*scapes provide settings for *friluftsliv* in the Romantic mind. The only results of significance or marginal significance were those related to a combination of more *wild* landscapes combined with *the sublime* predicting lower *connectedness* ($\beta_3 = -0{,}0018$; $p = 0{,}016$) and the same predicting higher *anthropocentrism* ($\beta_3 = 0{,}013$; $p = 0{,}051$) (Table 24). These results disagree with expectations that *wildness* might act synergistically with *the sublime* to affect environmental perspective. One factor that may have influenced this could have been the non-specificity of the data as the questionnaire addressed *friluftsliv* in general. For example, survey questions that pertained to landscape were not activity-specific. Different *friluftsliv* activities take place in disparate landscapes (and waterscapes): one cannot rock climb on a lake, kayak on a cross-country ski *løype*, or ski while picking berries. This mixing of landscape-dependent activities alongside landscape in such a general sense likely produced incongruent data.

But taken as a whole, with the exceptions above, the lack of significance produced by the other landscape interaction tests indicates that the bivariate, simple regression results of the key variables only are uninfluenced by the landscape preferences measured (those preferences being only two dimensions out of any number of others, general or specific).

4.3 *Implications*

Aesthetics and morality can be viewed as two things connected (Freeman, 2017; Karlsen, 2018); together, they are a mainstay in the German concept of *Bildung*[3] – or its Norwegian analogue, *dannelse* – a type of long-term educational and character-building experience (Michel-Schertges, 2017). *Friluftsliv* offers a medium for this journey (Faarlund, 2015; Gurholt, 2008; Quay & Seaman, 2016). "The moral significance of our relationship with nature is based on the attention we pay to it" (Nicol, 2014, p. 458), and sublime experiences necessarily require one's rapt engagement. Key findings from this study suggest that sublime experiences may sway individuals away from views of anthropocentrism and environmental apathy and usher them in ecocentric directions of nature connectedness and emotional affinity toward nature (§4.2.1).

The field of aesthetics is often associated with fine art, but nature may evoke feelings of the sublime more (Chirico *et al.*, 2021). As the *engagement model* of aesthetics describes,

[3] In the German language, nouns receive capitalization (Rat für deutsche Rechtschreibung, 2018).

appreciation of nature involves forfeiture of subject–object dualisms and replaces it with a recognition of nature's agency though sensuous reciprocity (Carlson & Lintott, 2008). A weakening of human–nature dichotomies through direct contact and emotionally knowing nature may strengthen ecocentric orientations that may be necessary for a post-capitalist, environmentally sustainable future on Earth (Barragan-Jason *et al.*, 2022; Büscher & Fletcher, 2019; Grund *et al.*, 2024). This further suggests a phenomenological experience where one ever-seeks an *essence*, an undeniable soul of a thing (Allen-Collinson, 2016; Telford, 2020). Experiences like these might expand past the pinnacle of experience models besmirched by economics that peak only at self-concerned human *transformation* (Loynes & Smallwood, 2022; Pine & Gilmore, 2011; Tarssanen & Kylänen, 2009) but ascent further to become *transcendental* experiences: deep, integrative, and meaningful (Loynes & Smallwood, 2022). Therefore, one can position *friluftsliv* as a vehicle for value change (Andersson & Öhman, 2015; Klima- og miljødepartementet, 2016; Kronlid & Öhman, 2013; Næss, 1989; Öhman & Sandell, 2016) toward a *metaphysical holism* (Løvoll & Sæther, 2022) that views nature's systems not purely as scientific processes but as an ecological whole to which humanity is a part and ethically obligated (Næss, 1986/2005, 2008b; Rothenberg, 1993; Sessions, 1974). These existential implications underscore the intrinsic value both of nature itself and of *friluftsliv* as a way to foster this value.

4.4 *Critique*

This study possessed more than one weakness. Non-physical subjectivities such as aesthetics and attitudes may not be simple to measure in the quantitative ways familiar to the natural sciences (Waage & Benediktsson, 2010). Nonetheless, this study attempted to do so. I used questions developed by published authors for the core of the survey but with a different format in an attempt to simplify response input: key variables representing attitudinal ratings used a *visual analogue scale* (§2.4.3). This tool has seen mixed success even when employed for the same measure, like for the assessment of acute mountain sickness, for example (Van Roo *et al.*, 2011; Wagner *et al.*, 2007), and some have recommend the Likert scale over the visual analogue scale in psychosocial assessment (Flynn *et al.*, 2004). A hybrid solution that combines the granularity of a visual analogue scale with intermediate signposts along the scale (Sung & Wu, 2018) could be an interesting alternative.

As a quantitative study, the statistical analysis of data could have benefited from greater participation numbers. The results still describe the sample at its given size, but because the study aimed to research a large population (*friluftsliv*-goers in the Nordic countries), a sample larger than 73 individuals would carry more weight in meaning.

Perhaps the study could have garnered more participation with a shorter questionnaire. The number of questions totaled 74, and the average response time was over 10 min (§3.2.1). The questionnaire covered a breadth of topics, and with a narrower focus, I could likely have built a questionnaire that demanded less time and thereby potentially attracting more respondents.

Most prominently, the use of Facebook Groups to sample the population stirs doubt. Though the arm of Facebook is long, the success of hinging study methods upon this third-party conduit ultimately relies on the Facebook users themselves. Even though the Facebook Group membership was high, this is not an indication of widespread active participation in a group, which means many users may not have seen my post, lacked interest to participate, or maybe were not even active on the platform. Additionally, even if had I received greater participation beyond a somewhat disappointing 73 responses, the assumption that Facebook users represent the Nordic *friluftsliv* population as a whole remains questionable even if Facebook is open to all for any number of reasons (a possible dissonance between the *friluftsliv*-minded and mobile technology (van Kraalingen, 2023), to give one example). No study is perfect, and this one worked within its limitations to achieve its purpose.

Lastly, I was less than entirely satisfied with the lesser elements of *friluftsliv* activity typology and the designations of skill with which I paired them. These are matters of language, a collection of symbols where meaning comes only from the interpretation of these symbols (Bruner, 1990). Though I tried to be democratic, what seemed fitting for me was naturally only so due to my own experiences (Bowers, 1984) and my biased reality of the sociocultural construct (Berger & Luckmann, 1966/2011) of *friluftsliv*.

4.5 Limitations

This study had many limitations. First and foremost, like in so many things, time was limited. The study formed a thesis project allotted to only a single semester, from the start the project in January to the hand-in date in mid-May. This limited the amount of time that could have been used for refinement of various ideas and methods.

This thesis was unfunded. Though this is common for a master's thesis, funding could have advantaged data collection in particular. As a quantitative study that sought newly generated data, finances to support participation advertisements (via Facebook and Instagram, for example) may have produced more responses and from a wider distribution of people. Respondents have a finite amount of time available just as anyone does, and monies could also have been used to offer compensation incentives to participate in the survey.

Language formed another limitation. My calls for participation were composed in English and most often posted in Facebook Groups where English was not the dominant language. I did indicate that I wrote in English because the research stretched across borders, but I also assumed that most or enough users could read English sufficiently enough that reading my post and questionnaire would not be burdensome. I considered translating my post to the respective native languages of the groups, but then I fretted that machine translations would be too inaccurate, or I would have to bother native speakers I knew to assist with good translations.

Language also limited my own process. Though the same could be said of many subjects, copious literature written in English exists on *friluftsliv* and peripheral topics, but as a Nordic concept, plentiful literature also exists written in non-English languages and untranslated. Unfortunately, I lacked skill in Norwegian or other languages enough to make meaningful access to most of these works.

Lastly, the scope I chose for this study may be considered a limitation since many sub-topics of *friluftsliv* occur in this paper. Though the key variables (*experience of the sublime* and *environmental perspective*) are somewhat specific, and I have an interest in *friluftsliv* in general, as suggested above, perhaps a more narrow focus of topics could have produced more detailed results. For example, I could have investigated the key variables within a smaller geographic area, a certain character of landscape, or a specific activity. However, if this had been the case, I would also likely have needed different methods if I were to receive enough responses for a quantitative approach.

4.6 Further research

Typical to scholarly pursuits of this kind, many are the opportunities for further research related to this study; I will suggest but a few here. First, repetition with methods of a more robust character (as critiqued above) would lay a more solid foundation to concepts investigated.

Notably, a different method of sampling might better represent the population; perhaps on-site surveys or a survey supported by one or more third-parties with the ability to broadcast (*e.g.*, Dansk Vandrelaug (DVL, n.d.) in Denmark; Suomen Retkeilyliitto (Suomen Retkeilyliitto, n.d.) in Finland; Ferðafélag Íslands (FÍ, n.d.) in Iceland; Den Norske Turistforening (DNT, n.d.) or Norsk Friluftsliv (Norsk Friluftsliv, n.d.) in Norway; Svenska Turistföreningen (STF, n.d.) or Svenskt Friluftsliv (Svenskt Friluftsliv, n.d.) in Sweden) could accomplish this. Beyond that, a deeper look at what feelings of the sublime mean in the more specific context of *friluftsliv* could be helpful. Related to environmental perspectives, various other scales of rating exist and await further application (for example, the *New Ecological Paradigm Scale* (Bjerke *et al.*, 2006) or the *Nature Relatedness Scale* (Nisbet *et al.*, 2009) or its abridgement (Nisbet & Zelenski, 2013)). Also, the intervening variables themselves – *context* (*i.e.*, *friluftsliv* for instrumentalized or non-instrumentalized purposes), *activity, activity skill, tour partners, tour duration,* and *landscape preference* – also want for deeper investigations that could each tolerate multiple studies. Lastly, this subject could continue to benefit from qualitative studies where new variables and themes are likely to emerge in the complexity afforded by nature experiences.

5 CONCLUSION

Romanticism represented a counter-culture movement concerned with society's slide from nature-near lifestyles into the choked factories and cities of industrialization. Even in the time of its peak in the 1800s did Romanticists recognize an unfolding anthropogenic threat to the ecological Earth. This home replete with wonder has inspired countless works of human creation valued not for utility but for inherit aesthetic worth. Itself like art, the masterpiece that is nature deigns to conduct experiences that incite the mind. The mind is not separate from the body, and *friluftsliv* – an activity of both – reveals this in experiences of the sublime. *Friluftsliv* affords a medium through which to commune with nature, an integration one can draw upon even when one finds themselves relegated to places where the wild is otherwise forgotten. As shown in this study, sublime *friluftsliv* may not possess a decisively strong contra-association with un-ecocentric perspectives and the negative outcomes they wreak; however, and perhaps normatively, sublime *friluftsliv* did show a marked positive association with ecocentric perspectives. These environmentally friendly views challenge nature–culture dualism and instrumentalization of nature and thus may expand one's world-horizon. Through *friluftsliv* and extraordinary experiences outdoors – through life alongside nature – one may nurture ecocentric ethics, which, in turn, may guide a way to a brighter future for all.

REFERENCES

Aall, C., Klepp, I. G., Engeset, A. B., Skuland, S. E., & Støa, E. (2011). Leisure and sustainable development in Norway: Part of the solution and the problem. *Leisure Studies, 30*(4), 453–476. https://doi.org/10.1080/02614367.2011.589863

Abram, D. (1996). *The spell of the sensuous: Perception and language in a more-than-human world*. Vintage Books.

Abram, D., Milstein, T., & Castro-Sotomayor, J. (2020). Interbreathing ecocultural identity in the Humilocene. In T. Milstein & J. Castro-Sotomayor (Eds.), *Routledge handbook of ecocultural identity* (pp. 5–25). Routledge.

Addison, J. (1767). *Remarks on several parts of Italy, &c. In the years 1701, 1702, 1703*. Printed for J. and R. Tonson. https://archive.org/details/remarksonseveral00addi

Allen-Collinson, J. (2016). Breathing in life: Phenomenological perspectives on sport and exercise. In B. Smith & A. C. Sparkes (Eds.), *Routledge handbook of qualitative research in sport and exercise* (pp. 11–23). Routledge.

Amérigo, M., Aragonés, J. I., & García, J. A. (2012). Exploring the dimensions of environmental concern: An integrative proposal. *Psyecology, 3*(3), 353–365. https://doi.org/10.1174/217119712802845723

Andersson, K., & Öhman, J. (2015). Moral relations in encounters with nature. *Journal of Adventure Education and Outdoor Learning, 15*(4), 310–329. https://doi.org/10.1080/14729679.2015.1035292

Andkjaer, S., & Ishoi, A. (2023). Alone in the wilderness: Cultural perspectives to the participants' motives and values from participating in a Danish reality TV-show. *Frontiers in Sports and Active Living, 5*, 872485. https://doi.org/10.3389/fspor.2023.872485

Antonovsky, A. (1987). *Unraveling the mystery of health: How people manage stress and stay well* (1st ed). Jossey-Bass.

Armitage, J. (1999). From modernism to hypermodernism and beyond: An interview with Paul Virilio. *Theory, Culture & Society, 16*(5–6), 25–55. https://doi.org/10.1177/02632769922050854

Arnold, J. B. (2024). *ggthemes: Extra themes, scales and geoms for* ggplot2 (5.1.0) [R]. https://cran.r-project.org/package=ggthemes

Barragan-Jason, G., De Mazancourt, C., Parmesan, C., Singer, M. C., & Loreau, M. (2022). Human–nature connectedness as a pathway to sustainability: A global meta-analysis. *Conservation Letters, 15*(1), e12852. https://doi.org/10.1111/conl.12852

Barrows, P. D., Richardson, M., Hamlin, I., & Van Gordon, W. (2022). Nature connectedness, nonattachment, and engagement with nature's beauty predict pro-nature conservation behavior. *Ecopsychology, 14*(2), 83–91. https://doi.org/10.1089/eco.2021.0036

Barsham, D., & Hitchcock, M. (2013). 'Prophets of nature': Romantic ideals of nature and their continuing relevance for tourism today. In A. Holden & D. A. Fennell (Eds.), *The Routledge handbook of tourism and the environment* (pp. 54–64). Routledge.

Basil, M. D. (2023). Understanding people's motivations for a long-distance hiking trip. *Leisure Studies, 42*(2), 282–295. https://doi.org/10.1080/02614367.2022.2115108

Beames, S., Mackie, C., & Atencio, M. (2019). *Adventure and society*. Springer International Publishing. https://doi.org/10.1007/978-3-319-96062-3

Becken, S., & Kaur, J. (2022). Anchoring "tourism value" within a regenerative tourism paradigm – a government perspective. *Journal of Sustainable Tourism, 30*(1), 52–68. https://doi.org/10.1080/09669582.2021.1990305

Becker, P. (2016). The archaeology of the outdoor movement and the German development: In the beginning was the curiosity about the sublime. In B. Humberstone, H. Prince, & K. A. Henderson (Eds.), & G. Vill-Debney (Trans.), *Routledge international handbook of outdoor studies* (pp. 491–500). Routledge. https://doi.org/10.4324/9781315768465

Beedie, P. (2015). A history of mountaineering tourism. In G. Musa, J. Higham, & A. Thompson-Carr (Eds.), *Mountaineering tourism* (pp. 40–54). Routledge. https://doi.org/10.4324/9781315769202

Beery, T. H. (2013). Nordic in nature: Friluftsliv and environmental connectedness. *Environmental Education Research, 19*(1), 94–117. https://doi.org/10.1080/13504622.2012.688799

Beery, T. H., & Wolf-Watz, D. (2014). Nature to place: Rethinking the environmental connectedness perspective. *Journal of Environmental Psychology, 40*, 198–205. https://doi.org/10.1016/j.jenvp.2014.06.006

Beery, T., Stahl Olafsson, A., Gentin, S., Maurer, M., Stålhammar, S., Albert, C., Bieling, C., Buijs, A., Fagerholm, N., Garcia-Martin, M., Plieninger, T., & M. Raymond, C. (2023).

Disconnection from nature: Expanding our understanding of human–nature relations. *People and Nature*, *5*(2), 470–488. https://doi.org/10.1002/pan3.10451

Berger, P. L., & Luckmann, T. (2011). *The social construction of reality: A treatise in the sociology of knowledge*. Open Road Media. (Original work published 1966)

Bethelmy, L. C., & Corraliza, J. A. (2019). Transcendence and sublime experience in nature: Awe and inspiring energy. *Frontiers in Psychology*, *10*, 509. https://doi.org/10.3389/fpsyg.2019.00509

Bigell, W. (2022). Norwegian *friluftsliv* ('outdoor life') as an interpassive ritual. In M. Häyrynen, J. Häkli, & J. Saarinen (Eds.), *Landscapes of affect and emotion: Nordic environmental humanities and the emotional turn* (pp. 218–243). Brill. https://doi.org/10.1163/9789004470095

Bjerke, T., And, C. T., & Kleiven, J. (2006). Outdoor recreation interests and environmental attitudes in Norway. *Managing Leisure*, *11*(2), 116–128. https://doi.org/10.1080/13606710500520197

Boslaugh, S. (2013). *Statistics in a nutshell: A deskop quick reference* (2nd ed.). O'Reilly.

Bowers, C. A. (1984). *The promise of theory: Education and the politics of cultural change*. Longman.

Brady, E. (1998). Imagination and the aesthetic appreciation of nature. *The Journal of Aesthetics and Art Criticism*, *56*(2), 139–147.

Brady, E. (2003). *Aesthetics of the natural environment*. Edinburgh University Press.

Brady, E. (2010). The sublime, ugliness and "terrible beauty" in Icelandic landscapes. In K. Benediktsson & K. A. Lund (Eds.), *Conversations with landscape* (1st ed., pp. 125–136). Routledge. https://doi.org/10.4324/9781315574172

Breivik, G. (2021). 'Richness in ends, simpleness in means!' on Arne Naess's version of deep ecological *friluftsliv* and its implications for outdoor activities. *Sport, Ethics and Philosophy*, *15*(3), 417–434. https://doi.org/10.1080/17511321.2020.1789719

Bricker, K. S., & Kerstetter, D. L. (2000). Level of specialization and place attachment: An exploratory study of whitewater recreationists. *Leisure Sciences*, *22*(4), 233–257. https://doi.org/10.1080/01490409950202285

Brookes, A., & Dahle, B. (2007). Is a tree transplanted to another continent the same tree? Some reflections on friluftsliv in an international context. In B. Henderson & N. Vikander (Eds.), *Nature first: Outdoor life the friluftsliv way* (pp. viii–xiv). Natural Heritage Books.

Brown, M., & Wattchow, B. (2015). Enskilment and place-responsiveness in outdoor studies. In B. Humberstone, H. Prince, & K. A. Henderson (Eds.), *Routledge international handbook of outdoor studies* (1st ed., pp. 435–443). Routledge. https://doi.org/10.4324/9781315768465

Brügge, B., Glantz, M., Sandell, K., Lundqvist Jones, T., Szczepanski, A., & Andersson, P. (Eds.). (2021). *Friluftsliv explored: An environmental and outdoor teaching approach for knowledge, emotions and quality of life* (T. Lundqvist Jones, Trans.). Linköping University Electronic Press. https://doi.org/10.3384/9789179290665 (Original work published 2018)

Brügger, A., Kaiser, F. G., & Roczen, N. (2011). One for all?: Connectedness to nature, inclusion of nature, environmental identity, and implicit association with nature. *European Psychologist*, *16*(4), 324–333. https://doi.org/10.1027/1016-9040/a000032

Bruner, J. S. (1990). *Acts of meaning*. Harvard University Press.

Brymer, E., & Gray, T. (2009). Dancing with nature: Rhythm and harmony in extreme sport participation. *Journal of Adventure Education & Outdoor Learning*, *9*(2), 135–149. https://doi.org/10.1080/14729670903116912

Brymer, E., & Oades, L. G. (2008). Extreme sports a positive transformation in courage and humility. *Journal of Humanistic Psychology*, *49*(1), 114–126. https://doi.org/10.1177/0022167808326199

Büscher, B., & Fletcher, R. (2019). Towards convivial conservation. *Conservation and Society*, *17*(3), 283–296. https://doi.org/10.4103/cs.cs_19_75

Byron, G. G. (1899). Childe Harold's pilgrimage: Canto the third. In E. H. Coleridge (Ed.), *The works of Lord Byron: A new, revised and enlarged edition, with illustrations: Vol. II: Poetry*. John Murray. https://en.wikisource.org/wiki/The_Works_of_Lord_Byron_(ed._Coleridge,_Prothero) (Original work published 1816)

Capaldi, C., Passmore, H.-A., Nisbet, E., Zelenski, J., & Dopko, R. (2015). Flourishing in nature: A review of the benefits of connecting with nature and its application as a wellbeing intervention. *International Journal of Wellbeing*, *5*(4), 1–16. https://doi.org/10.5502/ijw.v5i4.449

Carlson, A. (2000). *Aesthetics and the environment: The appreciation of nature, art and architecture*. Routledge. https://doi.org/10.4324/9780203981405

Carlson, A., & Lintott, S. (2008). Introduction: Natural aesthetic value and environmentalism. In A. Carlson & S. Lintott (Eds.), *Nature, aesthetics, and environmentalism: From beauty to duty* (pp. 1–28). Columbia University Press.

Carpenter, C., & Harper, N. (2016). Health and wellbeing benefits of activities in the outdoors. In B. Humberstone, H. Prince, & K. A. Henderson (Eds.), *Routledge international handbook of outdoor studies* (pp. 59–68). Routledge. https://doi.org/10.4324/9781315768465

Charlton, N. G. (2008). *Understanding Gregory Bateson: Mind, beauty, and the sacred earth*. State University of New York Press.

Chiang, Y.-C., Li, D., & Jane, H.-A. (2017). Wild or tended nature? The effects of landscape location and vegetation density on physiological and psychological responses. *Landscape and Urban Planning, 167*, 72–83. https://doi.org/10.1016/j.landurbplan.2017.06.001

Chirico, A., Clewis, R. R., Yaden, D. B., & Gaggioli, A. (2021). Nature versus art as elicitors of the sublime: A virtual reality study. *PLOS ONE, 16*(3), e0233628. https://doi.org/10.1371/journal.pone.0233628

Clayton, S. (2003). Environmental identity: A conceptual and an operational definition. In S. Clayton & S. Opotow (Eds.), *Identity and the Natural Environment* (pp. 45–66). The MIT Press. https://doi.org/10.7551/mitpress/3644.003.0005

Clewis, R. R. (2021). Why the sublime is aesthetic awe. *The Journal of Aesthetics and Art Criticism, 79*(3), 301–314. https://doi.org/10.1093/jaac/kpab023

Clewis, R. R., Yaden, D. B., & Chirico, A. (2022). Intersections between awe and the sublime: A preliminary empirical study. *Empirical Studies of the Arts, 40*(2), 143–173. https://doi.org/10.1177/0276237421994694

Couper, M. P., Tourangeau, R., Conrad, F. G., & Singer, E. (2006). Evaluating the effectiveness of visual analog scales: A web experiment. *Social Science Computer Review, 24*(2), 227–245. https://doi.org/10.1177/0894439305281503

Coventry, P. A., Brown, JenniferV. E., Pervin, J., Brabyn, S., Pateman, R., Breedvelt, J., Gilbody, S., Stancliffe, R., McEachan, R., & White, PiranC. L. (2021). Nature-based outdoor activities for mental and physical health: Systematic review and meta-analysis. *SSM - Population Health, 16*, 100934. https://doi.org/10.1016/j.ssmph.2021.100934

Cronon, W. (1996). The trouble with wilderness; or, Getting back to the wrong nature. *Environmental History, 1*(1), 7–28. https://doi.org/10.2307/3985059

Dahle, B. (1994). Welcome to «Sælehuset», the house of harmony. In B. Dahle (Ed.), *Nature: The true home of culture* (pp. 2–5). Norges Idrettshøgskole. https://www.nb.no/items/e35f7af109a0194964eb4114fdce24e5

Daniel, B., Bobilya, A. J., Kalisch, K. R., & Lindley, B. (2010). Lessons from the Outward Bound Solo: Intended transfer of learning. *Journal of Outdoor Recreation, Education, and Leadership*, *2*(1), Article 1.

Daniel, B., Bobilya, A. J., Kalisch, K. R., & McAvoy, L. H. (2014). Autonomous student experiences in outdoor and adventure education. *Journal of Experiential Education*, *37*(1), 4–17. https://doi.org/10.1177/1053825913518892

de Groot, W. T., & van den Born, R. J. G. (2003). Visions of nature and landscape type preferences: An exploration in The Netherlands. *Landscape and Urban Planning*, *63*(3), 127–138. https://doi.org/10.1016/S0169-2046(02)00184-6

de Sales, T. L., Castro, J., Saraiva, M. G., & Pinto-Correia, T. (2018). Hiking in the landscape—The history of Europeans' linkage to the landscape by hiking. *Landscape Architecture and Art*. https://doi.org/10.22616/j.landarchart.2018.12.09

Deleuze, G., & Guattari, F. (1987). *A thousand plateaus: Capitalism and schizophrenia*. University of Minnesota Press.

Delgado, D. A., Lambert, B. S., Boutris, N., McCulloch, P. C., Robbins, A. B., Moreno, M. R., & Harris, J. D. (2018). Validation of digital visual analog scale pain scoring with a traditional paper-based visual analog scale in adults. *JAAOS: Global Research and Reviews*, *2*(3), e088. https://doi.org/10.5435/JAAOSGlobal-D-17-00088

Dennis, J. (1693). *Miscellanies in verse and prose*. Printed for James Knapton. https://name.umdl.umich.edu/A35672.0001.001

DePhillips, F. A., Berliner, W. M., & Cribbin, J. J. (1960). *Management of training programs*. Richard D. Erwin, Inc.

Devonport, T. J., Lane, A. M., & Lloyd, J. (2011). Keeping your cool: A case study of a female explorer's solo North Pole expedition. *Wilderness & Environmental Medicine*, *22*(4), 333–337. https://doi.org/10.1016/j.wem.2011.07.003

DNT. (n.d.). *Den Norske Turistforening*. DNT – Den Norske Turistforening. https://www.dnt.no/

Dreyfus, H. L., & Dreyfus, S. E. (2005). Peripheral vision: Expertise in real world contexts. *Organization Studies*, *26*(5), 779–792. https://doi.org/10.1177/0170840605053102

DVL. (n.d.). *Dansk Vandrelaug*. Dansk Vandrelaug. https://dvl.dk/

Dyrdal, G. M., & Løvoll, H. S. (2023). Windjammer: Finding purpose and meaning on a tall ship adventure. *Social Sciences, 12*(8), 459. https://doi.org/10.3390/socsci12080459

Eichberg, H., & Loland, S. (2010). Nordic sports – from social movements via emotional to bodily movement – and back again? *Sport in Society, 13*(4), 676–690. https://doi.org/10.1080/17430431003616431

Eikje, C. A., Horgen, A., & Arnegård, J. (2019). The organizing and regulation of mountain guiding in Scandinavia 1820–2016, with a glance at the Alps. *Sport in Society, 22*(4), 555–572. https://doi.org/10.1080/17430437.2017.1389041

Emerson, R. W. (1836). *Nature*. James Munroe & Company. https://en.wikisource.org/wiki/Nature_(1836)

Engelland, C. (2020). Introduction: The language of experience. In C. Engelland (Ed.), *Language and Phenomenology* (1st ed., pp. 1–18). Routledge. https://doi.org/10.4324/9780429278600

Faarlund, N. (1993). A way home. In P. Reed & D. Rothenberg (Eds.), *Wisdom in the open air: The Norwegian roots of deep ecology* (pp. 157–169). University of Minnesota Press.

Faarlund, N. (2007). Defining friluftsliv. In B. Henderson & N. Vikander (Eds.), *Nature first: Outdoor life the friluftsliv way* (pp. 56–61). Natural Heritage Books.

Faarlund, N. (2015). *Friluftsliv – En dannelsesreise*. Ljå.

FÍ. (n.d.). *Ferðafélag Íslands býður upp á fjölbreyttar gönguferðir á Íslandi*. Ferðafélag Íslands. https://www.fi.is/

Flynn, D., Van Schaik, P., & Van Wersch, A. (2004). A comparison of multi-item Likert and visual analogue scales for the assessment of transactionally defined coping function. *European Journal of Psychological Assessment, 20*(1), 49–58. https://doi.org/10.1027/1015-5759.20.1.49

Franklin, A. (2013). Viewing nature politically. In A. Holden & D. A. Fennell (Eds.), *The Routledge handbook of tourism and the environment* (pp. 75–83). Routledge.

Fredman, P., Haukeland, J. V., Tyrväinen, L., Stensland, S., & Wall-Reinius, S. (2021). Nature-based tourism in a Nordic context. In P. Fredman & J. V. Haukeland (Eds.), *Nordic perspectives on nature-based tourism: From place-based resources to value-added experiences* (pp. 2–15). Edward Elgar Publishing.

Fredman, P., Karlsson, S.-E., Romlid, U., & Sandell, K. (Eds.). (2008). *Vilka är ute i naturen? Delresultat från en nationell enkät om friluftsliv och naturturism i Sverige*. Friluftsliv i förändring.

Fredrickson, B. L. (2000). Extracting meaning from past affective experiences: The importance of peaks, ends, and specific emotions. *Cognition & Emotion*, *14*(4), 577–606. https://doi.org/10.1080/026999300402808

Freeman, J. (2017). Adorno's *Aesthetic Theory*. In M. J. Thompson (Ed.), *The Palgrave handbook of critical theory* (pp. 279–290). Palgrave Macmillan. https://doi.org/10.1057/978-1-137-55801-5_13

Gagnon Thompson, S. C., & Barton, M. A. (1994). Ecocentric and anthropocentric attitudes toward the environment. *Journal of Environmental Psychology*, *14*(2), 149–157. https://doi.org/10.1016/S0272-4944(05)80168-9

Gainsburg, I., Roy, S., & Cunningham, J. L. (2023). An examination of how six reasons for valuing nature are endorsed and associated with pro-environmental behavior across 12 countries. *Scientific Reports*, *13*(1), 8484. https://doi.org/10.1038/s41598-023-34338-x

Gåsdal, O. (2007). Norwegians and friluftsliv: Are we unique? In B. Henderson & N. Vikander (Eds.), *Nature first: Outdoor life the friluftsliv way* (pp. 75–82). Natural Heritage Books.

Gelter, H. (2000). *Friluftsliv:* The Scandinavian philosophy of outdoor life. *Canadian Journal of Environmental Education*, *5*, 77–92.

Gelter, H. (2007). Friluftsliv as slow experiences in a post-modern "experience" society. In B. Henderson & N. Vikander (Eds.), *Nature first: Outdoor life the friluftsliv way* (pp. 37–46). Natural Heritage Books.

Gelter, H. (2010). *Friluftsliv* as slow and peak experiences in the transmodern society. *Norwegian Journal of Friluftsliv*.

Gift, A. G. (1989). Visual analogue scales: Measurement of subjective phenomena. *Nursing Research*, *38*(5), 286–287.

Graves, M., Løvoll, H. S., & Sæther, K.-W. (2020). Friluftsliv: Aesthetic and psychological experience of wilderness adventure. In M. Fuller, D. Evers, A. Runehov, K.-W. Sæther, & B. Michollet (Eds.), *Issues in science and theology: Nature – and beyond* (Vol. 5, pp. 207–220). Springer International Publishing. https://doi.org/10.1007/978-3-030-31182-7_17

Green, K., Thurston, M., & Vaage, O. (2015). Isn't it good, Norwegian wood? Lifestyle and adventure sports participation among Norwegian youth. *Leisure Studies*, *34*(5), 529–546. https://doi.org/10.1080/02614367.2014.938771

Greider, T., & Garkovich, L. (1994). Landscapes: The social construction of nature and the environment. *Rural Sociology*, *59*(1), 1–24. https://doi.org/10.1111/j.1549-0831.1994.tb00519.x

Grund, J., Singer-Brodowski, M., & Büssing, A. G. (2024). Emotions and transformative learning for sustainability: A systematic review. *Sustainability Science*, *19*(1), 307–324. https://doi.org/10.1007/s11625-023-01439-5

Guéguen, N., & Stefan, J. (2016). "Green altruism": Short immersion in natural green environments and helping behavior. *Environment and Behavior*, *48*(2), 324–342. https://doi.org/10.1177/0013916514536576

Gunnarsdotter, Y. (2006). Hunting tourism as ecotourism: Conflicts and opportunities. In S. Gössling & J. Hultman (Eds.), *Ecotourism in Scandinavia: Lessons in theory and practice* (pp. 178–192). CABI.

Gurholt, K. P. (2008). Norwegian *friluftsliv* as *Bildung*: A critical review. In P. Becker & J. Schirp (Eds.), *Other ways of learning: The European Institute for Outdoor Adventure Education and Experiential Learning 1996–2006* (pp. 131–155).

Gurholt, K. P. (2014). Joy of nature, *friluftsliv* education and self: Combining narrative and cultural–ecological approaches to environmental sustainability. *Journal of Adventure Education and Outdoor Learning*, *14*(3), 233–246. https://doi.org/10.1080/14729679.2014.948802

Gurholt, K. P., Bischoff, A., Mygind, E., & Lundvall, S. (2018). Nordic Master in Friluftsliv Studies (Outdoor Studies): An invitation to students worldwide. *Pathways: The Ontario Journal of Outdoor Studies*, *20*(2), 25–27.

Gurholt, K. P., & Haukeland, P. I. (2019). Scandinavian *friluftsliv* (outdoor life) and the Nordic model: Passions and paradoxes. In *The Nordic model and physical culture* (pp. 165–181). Routledge.

Hadley, W. (2023). *forcats: Tools for working with categorical variables (factors)* (1.0.0) [R]. https://cran.r-project.org/package=forcats

Hadley, W., Chang, W., Henry, L., Pedersen, Thomas Lin, Takahashi, K., Wilke, C., Woo, K., Yutani, H., Dunnington, D., & van den Brand, T. (2024). *ggplot2: Create elegant data*

visualisations using The Grammar of Graphics (3.5.0) [R]. https://cran.r-project.org/package=ggplot2

Hadley, W., François, R., Henry, L., Müller, K., & Vaughan, D. (2023). *dplyr: A grammar of data manipulation* (1.1.4) [R]. https://cran.r-project.org/package=dplyr

Hadley, W., Vaughan, D., & Girlich, M. (2024). *tidyr: Tidy messy data* (1.3.1) [R]. https://cran.r-project.org/package=tidyr

Haukeland, P. I. (2022). *An ecopraxeology of outdoor life (friluftsliv) studies* [Unpublished manuscript]. University of South-Eastern Norway.

Heintzman, P. (2009). Nature-based recreation and spirituality: A complex relationship. *Leisure Sciences, 32*(1), 72–89. https://doi.org/10.1080/01490400903430897

Higham, J., Thompson-Carr, A., & Musa, G. (2015). Mountaineering tourism: Activity, people and place. In G. Musa, J. Higham, & A. Thompson-Carr (Eds.), *Mountaineering tourism* (pp. 1–15). Routledge. https://doi.org/10.4324/9781315769202

Hoarau-Heemstra, H., Wigger, K., Olsen, J., & James, L. (2023). Cruise tourism destinations: Practices, consequences and the road to sustainability. *Journal of Destination Marketing & Management, 30*, 100820. https://doi.org/10.1016/j.jdmm.2023.100820

Hoegh-Guldberg, O. (2011). Coral reef ecosystems and anthropogenic climate change. *Regional Environmental Change, 11*(S1), 215–227. https://doi.org/10.1007/s10113-010-0189-2

Hofmann, A. R., Rolland, C. G., Rafoss, K., & Zoglowek, H. (2018). *Norwegian friluftsliv: A way of living and learning in nature*. Waxmann.

Hollenhorst, S. J., & Jones, C. D. (2001). Wilderness solitude: Beyond the social-spatial perspective. *USDA Forest Service Proceedings, 20*, 56–61.

Horgen, A. (2022). Friluftsliv, idrett eller sport?: Mening og begrepsbruk i Den Norske Turistforenings årbøker, 1868–1979. *Historisk tidsskrift, 101*(3), 213–228. https://doi.org/10.18261/ht.101.3.4

Howe, L. A. (2019). Not everything is a contest: Sport, nature sport, and *friluftsliv*. *Journal of the Philosophy of Sport, 46*(3), 437–453. https://doi.org/10.1080/00948705.2019.1622126

Høyem, J. (2020). Outdoor recreation and environmentally responsible behavior. *Journal of Outdoor Recreation and Tourism, 31*, 100317. https://doi.org/10.1016/j.jort.2020.100317

Humberstone, B., & Prince, H. (Eds.). (2019). *Research methods in outdoor studies* (1st ed.). Routledge. https://doi.org/10.4324/9780429199004

Huntington-Klei, N. (2023). *vtable: Variable table for variable documentation* (1.4.6) [R]. https://cran.r-project.org/package=vtable

Ibsen, H. (1910). *On the heights* [Paa vidderne]*: A tragedy in lyrical ballads* (W. N. Guthrie, Trans.). The University of the South. (Original work published 1859)

Immomen, T., Brymer, E., Jaakkola, T., & Davids, K. (2022). The human–environment dynamic: An ecological dynamics approach to understanding human-environment interactions in the context of adventure psychology. In P. Reid & E. Brymer (Eds.), *Adventure psychology* (1st ed., pp. 104–119). Routledge. https://doi.org/10.4324/9781003173601-9

Ingold, T. (2011). *Being alive: Essays on movement, knowledge and description*. Routledge. https://doi.org/10.4324/9780203818336

IPCC. (2023). *Climate change 2023: Synthesis report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (Core Writing Team, H. Lee, & J. Romero, Eds.; 1st ed.). Intergovernmental Panel on Climate Change (IPCC). https://doi.org/10.59327/IPCC/AR6-9789291691647

Izard, C. E. (2007). Basic emotions, natural kinds, emotion schemas, and a new paradigm. *Perspectives on Psychological Science*, *2*(3), 260–280. https://doi.org/10.1111/j.1745-6916.2007.00044.x

Jenkins, M., Lee, C., Houge Mackenzie, S., Hargreaves, E. A., Hodge, K., & Calverley, J. (2022). Nature-based physical activity and hedonic and eudaimonic wellbeing: The mediating roles of motivational quality and nature relatedness. *Frontiers in Psychology*, *13*, 783840. https://doi.org/10.3389/fpsyg.2022.783840

Jensen, A., Heggen, M. P., Jickling, B., & Blenkinsop, S. (2022). Wild pedagogies for change. *Canadian Journal of Environmental Education*, *25*, 5–12.

Jóhannesdóttir, G. R. (2010). Landscape and aesthetic values: Not only in the eye of the beholder. In K. Benediktsson & K. A. Lund (Eds.), *Conversations with landscape* (1st ed., pp. 109–123). Routledge. https://doi.org/10.4324/9781315574172

Kals, E., Schumacher, D., & Montada, L. (1999). Emotional affinity toward nature as a motivational basis to protect nature. *Environment and Behavior*, *31*(2), 178–202. https://doi.org/10.1177/00139169921972056

Kaltenborn, B. P., Haaland, H., & Sandell, K. (2001). The public right of access: Some challenges to sustainable tourism development in Scandinavia. *Journal of Sustainable Tourism*, *9*(5), 417–433. https://doi.org/10.1080/09669580108667412

Kaltenborn, B. P., & Vorkinn, M. (Eds.). (1993). *Vårt friluftsliv: Aktiviteter, miljøkrav og forvaltningsbehov*. Norsk institutt for naturforskning.

Kaplan, R., & Kaplan, S. (1989). *The experience of nature: A psychological perspective*. Cambridge University Press.

Kaplan, S., & Talbot, J. F. (1983). Psychological benefits of a wilderness experience. In I. Altman & J. F. Wohlwill (Eds.), *Behavior and the natural environment* (pp. 163–203). Springer US. https://doi.org/10.1007/978-1-4613-3539-9_6

Karlsen, G. (2018). Aesthetic appreciation in nature and literature. In N. Goga, L. Guanio-Uluru, B. O. Hallås, & A. Nyrnes (Eds.), *Ecocritical perspectives on children's texts and cultures: Nordic dialogues* (pp. 41–56). Springer International Publishing. https://doi.org/10.1007/978-3-319-90497-9

Kay, M. (2024). *ggdist: Visualizations of distributions and uncertainty* (3.3.2) [R]. https://cran.r-project.org/package=ggdist

Kearney, R. (2015). The wager of carnal hermeneutics. In R. Kearney & B. Treanor (Eds.), *Carnal hermeneutics* (First edition, pp. 15–56). Fordham University Press.

Kimmerer, R. (2011). Restoration and reciprocity: The contributions of traditional ecological knowledge. In D. Egan, E. E. Hjerpe, & J. Abrams (Eds.), *Human Dimensions of Ecological Restoration* (pp. 257–276). Island Press/Center for Resource Economics. https://doi.org/10.5822/978-1-61091-039-2_18

Klima- og miljødepartementet. (2016). *Friluftsliv: Natur som kilde til helse og livskvalitet* (Melding Til Stortinget Meld. St. 18 (2015–2016)). https://www.regjeringen.no/no/dokumenter/meld.-st.-18-20152016/id2479100/

Kline, C. S., Hoarau-Heemstra, H. (Hin), & Cavaliere, C. T. (2023). Wildlife equity theory for multispecies tourism justice. *Journal of Travel Research*, *62*(6), 1167–1180. https://doi.org/10.1177/00472875221129254

Knapp, C. E., & Smith, T. E. (Eds.). (2005). *Exploring the power of solo, silence, and solitude*. Association for Experiential Education.

Kobourov, S. G., Mchedlidze, T., & Vonessen, L. (2015). Gestalt principles in graph drawing. In E. Di Giacomo & A. Lubiw (Eds.), *Graph drawing and network visualization* (Vol. 9411,

pp. 558–560). Springer International Publishing. https://doi.org/10.1007/978-3-319-27261-0_50

Koch, P. (1997). *Solitude: A philosophical encounter*. Open Court.

Krein, K. J. (2014). Nature sports. *Journal of the Philosophy of Sport, 41*(2), 193–208. https://doi.org/10.1080/00948705.2013.785417

Kronlid, D. O., & Öhman, J. (2013). An environmental ethical conceptual framework for research on sustainability and environmental education. *Environmental Education Research, 19*(1), 21–44. https://doi.org/10.1080/13504622.2012.687043

Kronsted Lund, L., Gurholt, K. P., & Dykes, N. (2020). The vitalizing sea: Embodiment and wellbeing on a sea-kayak journey. *Annals of Leisure Research*, 1–18. https://doi.org/10.1080/11745398.2020.1836663

Kuba, R. (2021). Presentation matters: Basics of graphic design in educational technology. *C2C Digital Magazine, 1*(15), 7.

Kumar, R. (2014). *Research methodology: A step-by-step guide for beginners* (4th edition). SAGE.

Kvaløy Sætereng, S. (1994). Inside nature. In B. Dahle (Ed.), *Nature: The true home of culture* (pp. 29–37). Norges Idrettshøgskole. https://www.nb.no/items/e35f7af109a0194964eb4114fdce24e5

Lahti, E. E. (2022). Sisu: Answering the call of adventure with strength and grace. In P. Reid & E. Brymer (Eds.), *Adventure psychology* (1st ed., pp. 142–155). Routledge. https://doi.org/10.4324/9781003173601-12

Langseth, T. (2011). Risk sports – Social constraints and cultural imperatives. *Sport in Society, 14*(5), 629–644. https://doi.org/10.1080/17430437.2011.574366

Leopold, A. (1989). *A Sand County almanac, and sketches here and there*. Oxford University Press. (Original work published 1949)

Likert, R. (1932). A technique for the measurement of attitudes. *Archives of Psychology, 22*, 5–55.

Lima, P. A. B., & Mariano, E. B. (2022). Eudaimonia in the relationship between human and nature: A systematic literature review. *Cleaner Production Letters, 2*, 100007. https://doi.org/10.1016/j.clpl.2022.100007

Lorand, R. (1994). Beauty and its opposites. *The Journal of Aesthetics and Art Criticism, 54*(4), 399–406.

Lovelock, J. (2000). *Gaia: A new look at life on Earth*. Oxford University Press. (Original work published 1979)

Løvoll, H. S. (2019). The inner feeling of glacier hiking: An exploratory study of "immersion" as it relates to flow, hedonia and eudaimonia. *Scandinavian Journal of Hospitality and Tourism*, *19*(3), 300–316. https://doi.org/10.1080/15022250.2019.1581084

Løvoll, H. S., & Sæther, K.-W. (2022). Awe experiences, the sublime, and spiritual well-being in Arctic wilderness. *Frontiers in Psychology*, *13*, 973922. https://doi.org/10.3389/fpsyg.2022.973922

Løvoll, H. S., Sæther, K.-W., & Graves, M. (2020). Feeling at home in the wilderness: Environmental conditions, well-being and aesthetic experience. *Frontiers in Psychology*, *11*, 402. https://doi.org/10.3389/fpsyg.2020.00402

Loynes, C., & Gurholt, K. P. (2017). The journey as a transcultural experience for international students. *Journal of Geography in Higher Education*, *41*(4), 532–548. https://doi.org/10.1080/03098265.2017.1337734

Loynes, C., & Smallwood, A. (2022). Adventure and the sublime: A quest for transformation or transcendence? In P. Reid & E. Brymer (Eds.), *Adventure psychology* (1st ed., pp. 187–202). Routledge. https://doi.org/10.4324/9781003173601-16

Lumber, R., Richardson, M., & Sheffield, D. (2017). Beyond knowing nature: Contact, emotion, compassion, meaning, and beauty are pathways to nature connection. *PLOS ONE*, *12*(5), e0177186. https://doi.org/10.1371/journal.pone.0177186

Lund, T. (2022). An ecocritical perspective on *friluftsliv* students' relationships with nature. *Journal for Research in Arts and Sports Education*, *6*(2), 21–36. https://doi.org/10.23865/jased.v6.3033

Lundvall, S., & Schantz, P. (2013). Physical activities and their relation to physical education: A 200-year perspective and future challenges. *The Global Journal of Health and Physical Education Pedagogy*, *2*(1), 1–16.

Lupton, E., & Phillips, J. C. (2015). *Graphic design: The new basics* (2nd ed.). Princeton Architectural Press [u.a.].

Lynch, P., & Moore, K. (2004). Adventures in paradox. *Journal of Outdoor and Environmental Education*, *8*(2), 3–12. https://doi.org/10.1007/BF03400799

Macfarlane, R. (2003). *Mountains of the mind: A history of a fascination*. Granta Books.

Maloney, M. P., Ward, M. P., & Braucht, G. N. (1975). A revised scale for the measurement of ecological attitudes and knowledge. *American Psychologist*, *30*(7), 787–790. https://doi.org/10.1037/h0084394

Martin, L., White, M. P., Hunt, A., Richardson, M., Pahl, S., & Burt, J. (2020). Nature contact, nature connectedness and associations with health, wellbeing and pro-environmental behaviours. *Journal of Environmental Psychology*, *68*, 101389. https://doi.org/10.1016/j.jenvp.2020.101389

Matthews, P. (2008). Scientific knowledge and the aesthetic appreciation of nature. In A. Carlson & S. Lintott (Eds.), *Nature, aesthetics, and environmentalism: From beauty to duty* (pp. 188–204). Columbia University Press.

Mayer, F. S., & Frantz, C. M. (2004). The connectedness to nature scale: A measure of individuals' feeling in community with nature. *Journal of Environmental Psychology*, *24*(4), 503–515. https://doi.org/10.1016/j.jenvp.2004.10.001

McCullough, B. P., Bergsgard, N. A., Collins, A., Muhar, A., & Tyrväinen, L. (2018). *The impact of sport and outdoor recreation (friluftsliv) on the natural environment (Background paper)*. Mistra: The Swedish Foundation for Strategic Environmental Research.

McShane, K. (2007). Anthropocentrism vs. Nonanthropocentrism: Why should we care? *Environmental Values*, *16*(2). https://www.jstor.org/stable/30302252

Merleau-Ponty, M. (2012). *Phenomenology of perception* (D. A. Landes, Trans.). Routledge. (Original work published 1945)

Meta. (n.d.). *Facebook Groups*. Meta for Creators. https://www.facebook.com/creators/tools/groups

Meta. (2024, February 1). *Meta reports fourth quarter and full year 2023 results; initiates quarterly dividend*. https://investor.fb.com/investor-news/press-release-details/2024/Meta-Reports-Fourth-Quarter-and-Full-Year-2023-Results-Initiates-Quarterly-Dividend/default.aspx

Michel-Schertges, D. (2017). Aesthetics as the precondition for revolution. In M. J. Thompson (Ed.), *The Palgrave handbook of critical theory* (pp. 329–348). Palgrave Macmillan. https://doi.org/10.1057/978-1-137-55801-5_16

Mikaels, J. (2018). Becoming a place-responsive practitioner: Exploration of an alternative conception of *friluftsliv* in the Swedish physical education and health curriculum. *Journal of*

Outdoor Recreation, Education, and Leadership, *10*(1), 3–19. https://doi.org/10.18666/JOREL-2018-V10-I1-8146

Mikaels, J. (2019). Becoming-place: A rhizomatic exploration of friluftsliv in the Swedish school curriculum. *Curriculum Perspectives*, *39*(1), 85–89. https://doi.org/10.1007/s41297-019-00065-5

Mikaels, J., & Asfeldt, M. (2017). Becoming-crocus, becoming-river, becoming-bear: A relational materialist exploration of place(s). *Journal of Outdoor and Environmental Education*, *20*(2), 2–13. https://doi.org/10.1007/BF03401009

Muir, J. (1911, March). My first summer in the Sierra (Part III). *The Atlantic Monthly*, *107*(3). https://www.theatlantic.com/past/docs/unbound/flashbks/muir/muirmar.htm

Mullins, P. M. (2014). Conceptualizing skill within a participatory ecological approach to outdoor adventure. *Journal of Experiential Education*, *37*(4), 320–334. https://doi.org/10.1177/1053825913498367

Mullins, P. M. (2021). Introducing ecologies of skill for outdoor leaders. In G. Thomas, J. Dyment, & H. Prince (Eds.), *Outdoor environmental education in higher education: International perspectives* (Vol. 9, pp. 375–387). Springer. https://doi.org/10.1007/978-3-030-75980-3_31

Mustapic, J., & Zeger, S. (2021). Positive growth and change of personal values in solo unsupported and unassisted expedition to the South Pole: A case study. *International Journal of Sport Psychology*, *52*(4), 369–380. https://doi.org/10.7352/IJSP.2021.52.369

Næss, A. (1987). Self-realization: An ecological approach to being in the world. *The Trumpeter*, *4*(3), 35–42.

Næss, A. (1989). *Ecology, community and lifestyle: Outline of an ecosophy* (D. Rothenberg, Ed. & Trans.; 1st ed.). Cambridge University Press. https://doi.org/10.1017/CBO9780511525599

Næss, A. (2005). The basics of deep ecology. *The Trumpeter*, *21*(1), 61–71. (Original work published 1986)

Næss, A. (2008a). The basics of the deep ecology movement. In A. Drengson & B. Devall (Eds.), *The ecology of wisdom: Writings by Arne Naess* (pp. 105–119). Counterpoint.

Næss, A. (2008b). *The ecology of wisdom: Writings by Arne Naess* (A. R. Drengson & B. Devall, Eds.). Counterpoint.

Næss, A., & Haukeland, P. I. (2008). *Life's philosophy: Reason & feeling in a deeper world* (R. Huntford, Trans.). University of Georgia Press.

Nansen, F. (1994). Friluftsliv. In B. Dahle (Ed.), & P. Hough (Trans.), *Nature: The true home of culture* (pp. 6–7). Norges Idrettshøgskole. https://www.nb.no/items/e35f7af109a0194964eb4114fdce24e5 (Original work published 1921)

Nash, R. (2014). *Wilderness and the American mind* (5th ed.). Yale university press.

Naturvårdsverket. (2023, October 4). *Allemansrätten*. Naturvårdsverket. https://www.naturvardsverket.se/allemansratten/

Nedrelid, T. (1991). Use of nature as a Norwegian characteristic: Myths and reality. *Ethnologia Scandinavica*, *21*, 19–32.

Nicol, R. (2014). Entering the fray: The role of outdoor education in providing nature-based experiences that matter. *Educational Philosophy and Theory*, *46*(5), 449–461. https://doi.org/10.1111/j.1469-5812.2011.00840.x

Nicolson, M. H. (1997). *Mountain gloom and mountain glory: The development of the aesthetics of the infinite*. University of Washington Press. (Original work published 1959)

Nisbet, E. K., & Zelenski, J. M. (2013). The NR-6: A new brief measure of nature relatedness. *Frontiers in Psychology*, *4*. https://doi.org/10.3389/fpsyg.2013.00813

Nisbet, E. K., Zelenski, J. M., & Murphy, S. A. (2009). The nature relatedness scale: Linking individuals' connection with nature to environmental concern and behavior. *Environment and Behavior*, *41*(5), 715–740. https://doi.org/10.1177/0013916508318748

Nordic Council, & Nordic Council of Ministers. (2024a). *Facts about Åland*. Nordic Co-Operation. https://www.norden.org/en/information/about-aland

Nordic Council, & Nordic Council of Ministers. (2024b). *Facts about Greenland*. Nordic Co-Operation. https://www.norden.org/en/information/facts-about-greenland

Nordic Council, & Nordic Council of Ministers. (2024c). *Facts about the Faroe Islands*. Nordic Co-Operation. https://www.norden.org/en/information/facts-about-faroe-islands

Norsk Friluftsliv. (n.d.). *Hovedside*. Norsk Friluftsliv. https://norskfriluftsliv.no/

Norwegian Environment Agency. (2020). *Right to roam*. https://www.environmentagency.no/areas-of-activity/right-to-roam/about-right-to-roam/

Norwegian Government Security and Service Organisation. (2023). *Allemannsretten*. Regjeringen.No. https://www.regjeringen.no/no/tema/klima-og-miljo/friluftsliv/innsiktsartikler-friluftsliv/allemannsretten/id2076300/

Öhman, J., & Sandell, K. (2016). Environmental concerns and outdoor studies: Nature as fosterer. In B. Humberstone, H. Prince, & K. A. Henderson (Eds.), *Routledge international handbook of outdoor studies* (pp. 30–39). Routledge. https://doi.org/10.4324/9781315768465

Outward Bound. (2017, September 26). What is solo? *Outward Bound Blog*. https://outwardbound.org/blog/what-is-solo/

Outward Bound International. (2024, April 22). *Outward Bound*. Outward Bound. https://www.outwardbound.net

Pearse, N. (2011). Deciding on the scale granularity of response categories of Likert type scales: The case of a 21-point scale. *The Electronic Journal of Business Research Methods*, *9*(2), 159–171.

Pedlar, C. R., Lane, A. M., Lloyd, J. C., Dawson, J., Emegbo, S., Whyte, G. P., & Stanley, N. (2007). Sleep profiles and mood states during an expedition to the South Pole. *Wilderness & Environmental Medicine*, *18*(2), 127–132. https://doi.org/10.1580/06-WEME-BR-039R1.1

Pelowski, M., Hur, Y.-J., Cotter, K. N., Ishizu, T., Christensen, A. P., Leder, H., & McManus, I. C. (2021). Quantifying the if, the when, and the what of the sublime: A survey and latent class analysis of incidence, emotions, and distinct varieties of personal sublime experiences. *Psychology of Aesthetics, Creativity, and the Arts*, *15*(2), 216–240. https://doi.org/10.1037/aca0000273

Pine, B. J., & Gilmore, J. H. (2011). *The experience economy* (Updated edition). Harvard Business Review Press.

Posit Software. (n.d.). *RStudio IDE: The most trusted IDE for open source data science*. Posit. https://posit.co/products/open-source/rstudio/

Pritchard, A., Richardson, M., Sheffield, D., & McEwan, K. (2020). The relationship between nature connectedness and eudaimonic well-being: A meta-analysis. *Journal of Happiness Studies*, *21*(3), 1145–1167. https://doi.org/10.1007/s10902-019-00118-6

Purvis, B., Mao, Y., & Robinson, D. (2019). Three pillars of sustainability: In search of conceptual origins. *Sustainability Science*, *14*(3), 681–695. https://doi.org/10.1007/s11625-018-0627-5

Quay, J. (2013). More than relations between self, others and nature: Outdoor education and aesthetic experience. *Journal of Adventure Education & Outdoor Learning*, *13*(2), 142–157. https://doi.org/10.1080/14729679.2012.746846

Quay, J., & Seaman, J. (2016). Outdoor studies and a sound philosophy of experience. In B. Humberstone, H. Prince, & K. A. Henderson (Eds.), *Routledge international handbook of outdoor studies* (pp. 40–48). Routledge. https://doi.org/10.4324/9781315768465

Rat für deutsche Rechtschreibung. (2018). *Regeln und Wörterverzeichnis: Aktualisierte Fassung des amtlichen Regelwerks entsprechend den Empfehlungen des Rats für deutsche Rechtschreibung 2016*. https://www.rechtschreibrat.com/regeln-und-woerterverzeichnis/

Reips, U.-D., & Funke, F. (2008). Interval-level measurement with visual analogue scales in Internet-based research: VAS Generator. *Behavior Research Methods*, *40*(3), 699–704. https://doi.org/10.3758/BRM.40.3.699

Repp, G. (2004). *Friluftsliv* and adventure: Models, heroes and idols in a Nansen perspective. *Journal of Adventure Education & Outdoor Learning*, *4*(2), 117–131. https://doi.org/10.1080/14729670485200481

Richards, R. (2001). A new aesthetic for environmental awareness: Chaos theory, the beauty of nature, and broader humanistic identity. *Journal of Humanistic Psychology*, *41*(2), 59–95.

Richardson, M., Hamlin, I., Butler, C. W., Thomas, R., & Hunt, A. (2022). Actively noticing nature (not just time in nature) helps promote nature connectedness. *Ecopsychology*, *14*(1), 8–16. https://doi.org/10.1089/eco.2021.0023

Rolston, H., III. (1995). Does aesthetic appreciation of landscapes need to be science-based? *British Journal of Aesthetics*, *35*(4), 374–386.

Rolston, H., III. (2008). From beauty to duty: Aesthetics of nature and environmental ethics. In A. Carlson & S. Lintott (Eds.), *Nature, aesthetics, and environmentalism: From beauty to duty* (pp. 325–338). Columbia University Press.

Ron, A., Shani, A., & Uriely, N. (2008). Eco-leisure: Theory and practice. *Leisure/Loisir*, *32*(1), 47–64. https://doi.org/10.1080/14927713.2008.9651399

Rosa, C. D., & Collado, S. (2019). Experiences in nature and environmental attitudes and behaviors: Setting the ground for future research. *Frontiers in Psychology*, *10*, 763. https://doi.org/10.3389/fpsyg.2019.00763

Rosch, E. (1975). Cognitive reference points. *Cognitive Psychology*, *7*(4), 532–547. https://doi.org/10.1016/0010-0285(75)90021-3

Rothenberg, D. (1993). Nils Faarlund. In P. Reed & D. Rothenberg (Eds.), *Wisdom in the open air: The Norwegian roots of deep ecology* (pp. 155–157). University of Minnesota Press.

Sæþórsdóttir, A. D., Hall, C. M., & Saarinen, J. (2011). Making wilderness: Tourism and the history of the wilderness idea in Iceland. *Polar Geography*, *34*(4), 249–273. https://doi.org/10.1080/1088937X.2011.643928

Sandell, K. (2016). Ecostrategies: Presentation and elaboration of a conceptual framework of landscape perspectives. *Tourism: An International Interdisciplinary Journal*, *64*(1), 63–80.

Sandell, K., & Öhman, J. (2010). Educational potentials of encounters with nature: Reflections from a Swedish outdoor perspective. *Environmental Education Research*, *16*(1), 113–132. https://doi.org/10.1080/13504620903504065

Sandell, K., & Öhman, J. (2013). An educational tool for outdoor education and environmental concern. *Journal of Adventure Education & Outdoor Learning*, *13*(1), 36–55. https://doi.org/10.1080/14729679.2012.675146

Schultz, P. W. (2002). Inclusion with nature: The psychology of human–nature relations. In P. Schmuck & P. W. Schultz (Eds.), *Psychology of Sustainable Development* (pp. 61–78). Springer US. https://doi.org/10.1007/978-1-4615-0995-0_4

Sessions, G. S. (1974). Anthropocentrism and the environmental crisis. *Humboldt Journal of Social Relations*, *2*(1), 71–81.

Sikt. (2022). *Klassifisering av informasjon: Sektorstandard for universiteter, høgskoler og forskningsinstitutter*. https://cms.sikt.no/sites/default/files/2023-02/Sektorstandard_klassifisering_av_informasjon%20%281%29.pdf

Sjödin, K., Quennerstedt, M., & Öhman, J. (2023). The meanings of *friluftsliv* in physical education teacher education. *Sport, Education and Society*, 1–14. https://doi.org/10.1080/13573322.2023.2187770

Skille, E. Å., Pedersen, S., & Skille, Ø. (2023). *Friluftsliv* and *olggonastin* – Multiple and complex nature cultures. *Journal of Adventure Education and Outdoor Learning*, 1–13. https://doi.org/10.1080/14729679.2023.2254862

Slagstad, R. (2008). When the mountains were formed. In N. Messel (Ed.), *Oppdagelsen av fjellet* (pp. 151–167). Nasjonalmuseet for kunst, arkitektur og design. https://www.nb.no/items/2a8bbab0e01a6c3e3de5a665714412eb?page=0

Slagstad, R. (2015). *(Sporten): En idéhistorisk studie* (3. utg). Pax.

Slingsby, W. C. (1904). *Norway, the northern playground; Sketches of climbing and mountain exploration in Norway between 1872 and 1903*. David Douglas.

St. Pierre, E. A., & Jackson, A. Y. (2014). Qualitative data analysis after coding. *Qualitative Inquiry*, *20*(6), 715–719. https://doi.org/10.1177/1077800414532435

Statistics Denmark. (2024). *Population figures* [dataset]. https://www.dst.dk/en/Statistik/emner/borgere/befolkning/befolkningstal

Statistics Finland. (2024). *Preliminary population statistics* [dataset]. https://stat.fi/en/statistics/vamuu

Statistics Iceland. (2024). *Population* [dataset]. https://statice.is/statistics/population/inhabitants/overview/

Statistics Sweden. (2024). *Population statistics* [dataset]. https://www.scb.se/en/finding-statistics/statistics-by-subject-area/population/population-composition/population-statistics/

Statistisk Sentralbyrå. (2021). *Idrett og friluftsliv, levekårsundersøkelsen* [dataset]. https://www.ssb.no/kultur-og-fritid/idrett-og-friluftsliv/statistikk/idrett-og-friluftsliv-levekarsundersokelsen

Statistisk Sentralbyrå. (2022). *Idrett og friluftsliv, levekårsundersøkelsen: 13372: Kjønn, alder og friluftslivsaktiviteter 2021* [dataset]. https://www.ssb.no/statbank/table/13372

Statistisk Sentralbyrå. (2024). *Befolkningen* [dataset]. https://www.ssb.no/befolkning/faktaside/befolkningen

STF. (n.d.). *STF*. Svenska Turistföreningen. https://www.svenskaturistforeningen.se

Storie, M., & Vining, J. (2018). From oh to aha: Characteristics and types of environmental epiphany experiences. *Human Ecology Review*, *24*(1), 155–180.

Stougaard-Nielsen, J. (2019). Nordic nature: From Romantic nationalism to the Anthropocene. In A. Lindskog & J. Stougaard-Nielsen (Eds.), *Introduction to Nordic cultures* (pp. 165–180). UCL Press. https://doi.org/10.14324/111.9781787353992

Sung, Y.-T., & Wu, J.-S. (2018). The visual analogue scale for rating, ranking and paired-comparison (VAS-RRP): A new technique for psychological measurement. *Behavior Research Methods, 50*(4), 1694–1715. https://doi.org/10.3758/s13428-018-1041-8

Suomen Retkeilyliitto. (n.d.). *Etusivu*. Suomen Retkeilyliitto. https//suomenretkeilyliitto.fi/

Svarstad, H. (2010). Why hiking? Rationality and reflexivity within three categories of meaning construction. *Journal of Leisure Research, 42*(1), 91–110. https://doi.org/10.1080/00222216.2010.11950196

Svenskt Friluftsliv. (n.d.). *Friluftslivet—En av Sveriges största folkrörelser*. Svenskt Friluftsliv. https://svensktfriluftsliv.se/

Swaffield, S. R., & McWilliam, W. J. (2013). Landscape aesthetic experience and ecosystem services. In J. R. Dymond (Ed.), *Ecosystem services in New Zealand: Conditions and trends*. Manaaki Whenua Press. https://doi.org/10.7931/DL1MS3

Tarssanen, S., & Kylänen, M. (2009). What is an experience? In S. Tarssanen (Ed.), *Handbook for experience stagers* (5th ed., pp. 8–23). LEO: Lapland Center of Expertise for the Experience Industry.

Telford, J. (2020). Phenomenological approaches to research in outdoor studies. In B. Humberstone & H. Prince (Eds.), *Research methods in outdoor studies* (pp. 47–56). Routledge.

ten Have, H., & Patrão Neves, M. do C. (2021a). Anthropocentrism. In *Dictionary of global bioethics* (pp. 123–124). Springer International Publishing. https://doi.org/10.1007/978-3-030-54161-3_58

ten Have, H., & Patrão Neves, M. do C. (2021b). Deep ecology. In *Dictionary of global bioethics* (pp. 391–391). Springer International Publishing. https://doi.org/10.1007/978-3-030-54161-3_191

ten Have, H., & Patrão Neves, M. do C. (2021c). Ecocentrism. In *Dictionary of global bioethics* (pp. 449–449). Springer International Publishing. https://doi.org/10.1007/978-3-030-54161-3_220

Thapa, B. (2010). The mediation effect of outdoor recreation participation on environmental attitude-behavior correspondence. *The Journal of Environmental Education, 41*(3), 133–150. https://doi.org/10.1080/00958960903439989

The Jamovi Project. (n.d.). *Javmovi: Open statistical software for the desktop and cloud*. Javmovi. https://www.jamovi.org

The R Foundation. (n.d.). *R*. The R Project for Statistical Computing. https://www.r-project.org

Thoreau, H. D. (1854). *Walden; or, Life in the woods*. Ticknor and Fields.

Thoreau, H. D. (1862). Walking. *The Atlantic Monthly*, *9*(56), 657–674.

Timothy, D. (2013). Religious views of the environment: Sanctification of nature and implications for tourism. In A. Holden & D. A. Fennell (Eds.), *The Routledge handbook of tourism and the environment* (pp. 31–42). Routledge.

Todd, C. S. (2013). The importance of the aesthetic. In A. Holden & D. A. Fennell (Eds.), *The Routledge handbook of tourism and the environment* (pp. 65–74). Routledge.

Tordsson, B. (2008). Friluftslivets politisk-institusjonelle marginalisering. *Nytt Norsk Tidsskrift*, *25*(1), 42–54. https://doi.org/10.18261/ISSN1504-3053-2008-01-04

Tufte, E. R. (2007). *The visual display of quantitative information* (2nd ed.). Graphics Press.

Tversky, B. (1997). *Cognitive principles of graphic displays* (Technical Report FS-97-03; pp. 116–124). Association for the Advancement of Artificial Intelligence. https://cdn.aaai.org/Symposia/Fall/1997/FS-97-03/FS97-03-015.pdf

Ulrich, R. S. (1983). Aesthetic and affective response to natural environment. In I. Altman & J. F. Wohlwill (Eds.), *Behavior and the natural environment* (pp. 85–125). Springer. https://doi.org/10.1007/978-1-4613-3539-9_4

Umhverfisstofnun. (2024, February 23). *Access rights*. Umhverfisstofnun. https://ym.fi/jokaisenoikeudet

United Nations. (2024). *The 17 Goals*. United Nations Department of Economic and Social Affairs: Sustainable Development. https://sdgs.un.org/goals

United Nations Development Programme. (2024). *Human Development Report 2023–24: Breaking the gridlock: Reimagining cooperation in a polarized world*. https://hdr.undp.org/content/human-development-report-2023-24

Universitetet i Oslo. (n.d.). *Nettskjema*. Nettskjema. https://nettskjema.no

Universitetet i Sørøst-Norge. (2024a). *Magnus Egan*. Universitetet i Sørøst-Norge. https://www.usn.no/kontakt-oss/tilsette/magnus-egan

Universitetet i Sørøst-Norge. (2024b). *Paal Are Solberg*. Universitetet i Sørøst-Norge. https://www.usn.no/kontakt-oss/tilsette/paal-are-solberg

University of South-Eastern Norway. (2022). *Course plan for Master Thesis*. University of South-Eastern Norway. https://www.usn.no/english/academics/study-and-courseplans/#/emne/NOFRI100_1_2022_VÅR

University of South-Eastern Norway. (2024a). *Collecting, saving and archiving research data*. University of South-Eastern Norway. https://bibliotek.usn.no/collecting-saving-and-archiving-research-data/category32363.html

University of South-Eastern Norway. (2024b, February 5). *Classification and storage spaces (Students)*. University of South-Eastern Norway. https://www.usn.no/english/about/it-services/storage-guides/classification-and-storage-spaces-students

University of South-Eastern Norway. (2024c, May 8). *Nordic master in friluftsliv studies (outdoor studies)*. Universitetet i Sørøst-Norge. https://www.usn.no/english/academics/find-programmes/nordic-master-in-friluftsliv-studies/

Urry, J., & Larsen, J. (2011). *The tourist gaze 3.0* (3rd ed.). Sage.

Vaage, O. F. (2015). *Fritidsaktiviteter 1997-2014. Barn og voksnes idrettsaktiviteter, friluftsliv og kulturaktiviteter: Resultater fra levekårsundersøkelsene*. Statistisk sentralbyrå. https://www.ssb.no/kultur-og-fritid/artikler-og-publikasjoner/fritidsaktiviteter-1997-2014

van den Born, R. J. G., Lenders, R. H. J., de Groot, W. T., & Huijsman, E. (2001). The new biophilia: An exploration of visions of nature in Western countries. *Environmental Conservation*, *28*(1), 65–75. https://doi.org/10.1017/S0376892901000066

van den Bosch, M., & Bird, W. (Eds.). (2018). *Oxford textbook of nature and public health: The role of nature in improving the health of a population* (First edition). Oxford University Press.

van Kraalingen, I. (2023). A systematized review of the use of mobile technology in outdoor learning. *Journal of Adventure Education and Outdoor Learning*, *23*(3), 203–221. https://doi.org/10.1080/14729679.2021.1984963

van Rompay, T. J. L., Oran, S., Galetzka, M., & van Den Berg, A. E. (2023). Lose yourself: Spacious nature and the connected self. *Journal of Environmental Psychology*, *91*, 102108. https://doi.org/10.1016/j.jenvp.2023.102108

Van Roo, J. D., Lazio, M. P., Pesce, C., Malik, S., & Courtney, D. M. (2011). Visual analog scale (VAS) for assessment of acute mountain sickness (AMS) on Aconcagua. *Wilderness & Environmental Medicine, 22*(1), 7–14. https://doi.org/10.1016/j.wem.2010.10.002

Varley, P., & Semple, T. (2015). Nordic slow adventure: Explorations in time and nature. *Scandinavian Journal of Hospitality and Tourism, 15*(1–2), 73–90. https://doi.org/10.1080/15022250.2015.1028142

Vetlesen, A. J. (2015). *The denial of nature: Environmental philosophy in the era of global capitalism*. Routledge.

Vetlesen, A. J. (2017). Ethics and value in Naess' ecophilosophy: A realist perspective. *Worldviews, 21*(3), 251–261. https://doi.org/10.1163/15685357-02103004

Vigane, Å., & Sæther, E. (2020). Norwegian friluftsliv: History, cultural practice and values. In P. Vidal-González (Ed.), *Hiking in European mountains: Trends and horizons* (pp. 15–34). De Gruyter. https://doi.org/10.1515/9783110660715-003

Vining, J., & Merrick, M. S. (2012). Environmental epiphanies: Theoretical foundations and practical applications. In S. D. Clayton (Ed.), *The Oxford handbook of environmental and conservation psychology* (1st ed., pp. 485–508). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199733026.013.0026

Vistad, O. I., Oian, H., Williams, D. R., & Stokowski, P. (2020). Long-distance hikers and their inner journeys: On motives and pilgrimage to Nidaros, Norway. *Journal of Outdoor Recreation and Tourism-Research Planning and Management, 31*, 100326. https://doi.org/10.1016/j.jort.2020.100326

Vittersø, J. (2016). The most important idea in the world: An introduction. In J. Vittersø (Ed.), *Handbook of eudaimonic well-being* (pp. 1–24). Springer International Publishing. https://doi.org/10.1007/978-3-319-42445-3_1

Waage, E. R. H., & Benediktsson, K. (2010). Performing expertise: Landscape, governmentality and conservation planning in Iceland. *Journal of Environmental Policy & Planning, 12*(1), 1–22. https://doi.org/10.1080/15239080903220112

Wagner, D. R., Tatsugawa, K., Parker, D., & Young, T. A. (2007). Reliability and utility of a visual analog scale for the assessment of acute mountain sickness. *High Altitude Medicine & Biology, 8*(1), 27–31. https://doi.org/10.1089/ham.2006.0814

Walter, J. A. (1982). Social limits to tourism. *Leisure Studies, 1*(3), 295–304. https://doi.org/10.1080/02614368200390241

Wang, P.-C., & Yu, C.-Y. (2018). Aesthetic experience as an essential factor to trigger positive environmental consciousness. *Sustainability*, *10*(4), 1098. https://doi.org/10.3390/su10041098

Ween, G., & Abram, S. (2012). The Norwegian Trekking Association: Trekking as constituting the nation. *Landscape Research*, *37*(2), 155–171. https://doi.org/10.1080/01426397.2011.651112

Weigel, R., & Weigel, J. (1978). Environmental concern: The development of a measure. *Environment and Behavior*, *10*(1), 3–15. https://doi.org/10.1177/0013916578101001

Wickham, H., Averick, M., Bryan, J., Chang, W., McGowan, L., François, R., Grolemund, G., Hayes, A., Henry, L., Hester, J., Kuhn, M., Pedersen, T., Miller, E., Bache, S., Müller, K., Ooms, J., Robinson, D., Seidel, D., Spinu, V., … Yutani, H. (2019). Welcome to the Tidyverse. *Journal of Open Source Software*, *4*(43), 1686. https://doi.org/10.21105/joss.01686

Wilson, E. O. (1984). *Biophilia*. Harvard University Press.

Wold, D. E. (2023). *Ferd* toward a joyful change: Nature, mountaineering philosophers, and the dawn of "higher" *friluftsliv* education. In T. J. Hastings & K.-W. Sæther (Eds.), *Views of nature and dualism: Rethinking philosophical, theological, and religious assumptions in the Anthropocene* (pp. 93–119). Palgrave Macmillan. https://doi.org/10.1007/978-3-031-42902-6_5

Wolf-Watz, D. (2014). Traveling for nature?: On the paradox of environmental awareness and travel for nature experiences. *Tourism: An International Interdisciplinary Journal*, *62*(1), 5–18.

Wolf-Watz, D., Sandell, K., & Fredman, P. (2011). Environmentalism and tourism preferences: A study of outdoor recreationists in Sweden. *Scandinavian Journal of Hospitality and Tourism*, *11*(2), 190–204. https://doi.org/10.1080/15022250.2011.583066

Wollstonecraft, M. (1889). *Letters written during a short residence in Sweden, Norway, and Denmark* (H. Morley, Ed.). Cassell & Company. https://en.wikisource.org/wiki/Letters_Written_during_a_Short_Residence_in_Sweden,_Norway,_and_Denmark (Original work published 1796)

World Health Organization. (2024, April 19). *Constitution*. Constitution of the World Health Organization. https://www.who.int/about/governance/constitution

Xue, J., Næss, P., Stefansdottir, H., Steffansen, R., & Richardson, T. (2020). The hidden side of Norwegian cabin fairytale: Climate implications of multi-dwelling lifestyle. *Scandinavian Journal of Hospitality and Tourism*, *20*(5), 459–484. https://doi.org/10.1080/15022250.2020.1787862

Ympäristöministeriö. (2024, February 23). *Jokaisenoikeudet*. Ympäristöministeriö. https://ym.fi/jokaisenoikeudet

Zhang, J. W., Piff, P. K., Iyer, R., Koleva, S., & Keltner, D. (2014). An occasion for unselfing: Beautiful nature leads to prosociality. *Journal of Environmental Psychology*, *37*, 61–72. https://doi.org/10.1016/j.jenvp.2013.11.008

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APPENDIX A: REQUEST FOR PARTICIPATION

Friluftsliv, aesthetics & environmental perspective
Invitation for research participation: https://nettskjema.no/a/nofri

———————

(This post is in English because it concerns an international project announced across the Nordic nations.)

My name is Ryan, and I am a student in the *Nordic master in friluftsliv studies* program jointly delivered across Norway, Sweden, and Iceland by University of South-Eastern Norway, Norwegian School of Sport Sciences, The Swedish School of Sport & Health Sciences, and Hólar University.

For my master's thesis, I am conducting a study about *friluftsliv* (outdoor recreation), aesthetics, and environmental perspective. Would you please consider completing the questionnaire at the link above? I would be honored to have your input, and the results will contribute to understandings about the relationship between people and nature.

The survey is open to anyone, entirely anonymous, without a sign-in, and almost without typing (mostly clicking). It is expected to take approximately 10 min to complete and will be open until at least 15 February. (Because no sign-in is used, progress cannot be saved and later retrieved.) This call for participation may also be found in other locations, so please respond only once if you see it elsewhere. You are welcome to share the link with others outside of this Facebook group.

Results will ultimately be available in my thesis, which will be available at USN Open Archive in the second half of 2024.

Thank you very much!

APPENDIX B: QUESTIONNAIRE

Welcome!

Survey purpose

I am a student in the *Nordic master in friluftsliv studies* program, which is jointly delivered across Norway, Sweden, and Iceland by University of South-Eastern Norway (the coordinating institution), Norwegian School of Sport Sciences, The Swedish School of Sport & Health Sciences, and Hólar University. Responses provided in this questionnaire will be used for my master's thesis related to *friluftsliv*, aesthetics, and environmental perspective. The research will contribute to understandings about the relationship between people and nature.

Participation requirements

Participation in this survey would be of great help to me. Participation is:

- voluntary;
- anonymous;
- open to anyone;
- requires no sign-in;
- requires almost no typing; and
- takes approximately 10 min to complete.

There is no option to save progress. The survey is conducted in English and will be open until at least 15 February. You are welcome to share the survey link (https://nettskjema.no/a/nofri).

Processing of survey responses

This questionnaire uses the anonymous version of Nettskjema (a software application developed by University of Oslo) to collect answers. This means no personal information will be collected nor processed, and I will be unable to identify any respondent from their answers in any way. If you have any questions, please contact me, Ryan Brady, by e-mail at 251496@usn.no. You may also contact the Data Protection Officer at USN at personvernombud@usn.no if you are concerned about your privacy.

Results

Results will ultimately be available in my thesis, which will be available at USN Open Archive in the second half of this year.

Many thanks,
Ryan

Consent to participate

☐ I agree to participate in this study as described above.

* * *

Demographics

Year of birth
[drop-down selection input]

Gender

○ Man
○ Woman
○ Not listed

Years of education
Years of formal education including primary school, secondary school, and tertiary school (university, vocational school, *etc.*).
[drop-down selection input]

Marital status

○ Unmarried
○ Married

Country of citizenship or residence
The country with which you most strongly affiliate.

○ Denmark
○ Finland
○ Iceland
○ Norway
○ Sweden
○ Other

Postal code
[This element was only shown when "Other" was selected in the previous question.]
In the country selected in the previous question.
[text input]

* * *

What to think about for responses

Consider your *friluftsliv* (outdoor recreation) experience as a whole. Think of those experiences that are most typical for you. It is also possible that you may think of those experiences that are most memorable or significant to you.

Many questions have a scale with a range from 0 to 100. Neither end of the scale is considered desirable nor undesirable – the numerical values exist only to construct the scale.

The remainder of the questionnaire contains the following sections:

I. *Friluftsliv* background
II. During *friluftsliv* experiences
III. Environmental perspective

* * *

I. Friluftsliv background

Why or in what context do you engage in friluftsliv?
In simple terms. Typically or on average.
You have to select at least one option.

☐ Health & well-being
☐ Education
☐ Tourism
☐ Other

In what friluftsliv *activities do you participate and at what level of skill?*
If an activity is not in the list, please choose that which is most similar, if possible.

	Not a participant	Novice	Advanced beginner	Competent performer	Proficient performer	Expert
Walking, running, hiking, or snowshoeing	○	○	○	○	○	○
Trekking (backpacking)	○	○	○	○	○	○
Cross-country skiing (*langrenn*)	○	○	○	○	○	○
Fjellski (Nordic backcountry mountain skiing)	○	○	○	○	○	○
Randonnée ski touring or splitboarding (*topptur*)	○	○	○	○	○	○
Lift-served alpine skiing, alpine telemark skiing, or snowboarding	○	○	○	○	○	○
Tour ice skating(on natural bodies of water)	○	○	○	○	○	○
Bouldering (outdoors)	○	○	○	○	○	○
Sport (bolted) rock climbing (outdoors)	○	○	○	○	○	○
Trad (traditional) rock climbing	○	○	○	○	○	○
Ice & mixed climbing	○	○	○	○	○	○
Mountaineering	○	○	○	○	○	○
Road cycling	○	○	○	○	○	○
Mountain biking	○	○	○	○	○	○
Swimming (in natural bodies of water)	○	○	○	○	○	○
Freediving	○	○	○	○	○	○

Scuba diving	○	○	○	○	○	○
Flat-water paddling or rowing	○	○	○	○	○	○
Whitewater river paddling or rowing	○	○	○	○	○	○
Sea kayaking	○	○	○	○	○	○
Other leisure boating	○	○	○	○	○	○
Surfing or other wave sports	○	○	○	○	○	○
Berry-picking or mushroom-picking	○	○	○	○	○	○
Horseback riding (outdoors)	○	○	○	○	○	○
Fishing (angling)	○	○	○	○	○	○
Hunting	○	○	○	○	○	○

With how many other people do you recreate outdoors?
Typically or on average. Do not count yourself.
[scale of discrete values from 0 to 10 or more]

How many nights do your tours last?
Typically or on average.
[scale of discrete values from 0 to 10 or more]

Are the landscapes you go to more tended *or more* wild*?*
Typically or on average. Here, "tended" means *with* human intervention, and "wild" means *without* human intervention.
[visual analogue scale]

Are the landscapes you go to more dense *or more* spacious*?*
Typically or on average. Here, "dense" means with elements of *enclosure*, and "spacious" means with *openness*.
[visual analogue scale]

* * *

II. *During friluftsliv experiences (page 1 of 2)*

Consider your *friluftsliv* (outdoor recreation) experience as a whole. Think of those experiences that are most typical for you. It is also possible that you may think of those experiences that are most memorable or significant to you.

For the following statements, please indicate the degree to which you agree or disagree. Questions have a scale with a range from 0 to 100. Neither end of the scale is considered desirable nor undesirable – the numerical values exist only to construct the scale.

[Visual analogue scales from *disagree* to *agree* served as inputs for the remainder of the questions (albeit presented as statements) in the questionnaire. The questions on this form page pertained to the *awe* subdimension of sublime experience.]

- In the wilderness, I feel awe and reverence.
- I feel awe of nature's unpredictability.
- I feel insignificant next to nature's majesty.
- Being in nature makes me aware of life's fragility.
- I am fearful of the mystery that nature holds.
- In the wilderness, I fear my own vulnerability.

* * *

II. *During friluftsliv experiences (page 2 of 2)*

[The questions on this form page pertained to the *inspiring energy* subdimension of sublime experience.]

- Being in the wilderness is one of the things that makes me feel truly happy.
- In nature, I feel a deep sense of belonging.
- Words cannot describe everything I feel when I am in the wilderness, I watch a nature documentary, or I become aware of nature's presence.
- I feel deeply connected to nature.
- In the wilderness, I feel like part of the universe.
- In the wilderness, I sense a profound harmony with the universe.
- In the wilderness, I feel a singular vitality.
- The magnificence of nature makes me feel free.
- I feel a sense of eternity when I am in the wilderness or think about it.
- Being in nature brings inspiration to my life.

- In the wilderness, I feel that life and death are in harmony.
- Being in nature makes me feel deeply connected to all living beings.

* * *

III. Environmental perspective (page 1 of 4)

Consider your *friluftsliv* (outdoor recreation) experience as a whole. Think of those experiences that are most typical for you. It is also possible that you may think of those experiences that are most memorable or significant to you.

For the following statements, please indicate the degree to which you agree or disagree. Questions have a scale with a range from 0 to 100. Neither end of the scale is considered desirable nor undesirable – the numerical values exist only to construct the scale.

One of the most important reasons to keep lakes and rivers clean is so that people have a place to enjoy water sports.

[The questions on this form page pertained to the *anthropocentrism* perspective.]

- The most important reason for conservation is human survival.
- The thing that concerns me most about deforestation is that there will not be enough lumber for future generations.
- One of the most important reasons to conserve is to ensure a continued high standard of living.
- The worst thing about the loss of the rain forest is that it will restrict the development of new medicines.

* * *

III. Environmental perspective (page 2 of 4)

[The questions on this form page pertained to the *connectedness* perspective.]

- I think of the natural world as a community to which I belong.
- Like a tree can be part of a forest, I feel embedded within the broader natural world.
- I often feel part of the web of life.
- I think of myself as a part of nature, not separate from it.
- I often feel a kinship with animals and plants.

* * *

III. Environmental perspective (page 3 of 4)

[The questions on this form page pertained to the *emotional affinity* perspective.]

- I need time in nature to be happy.
- Sometimes, when I am unhappy, I find comfort in nature.
- I would feel that an important part of my life was missing if I was not able to get out and enjoy nature from time to time.
- I can enjoy spending time in natural settings just for the sake of being out in nature.
- Being out in nature is a great stress reducer for me.

* * *

III. Environmental perspective (page 4 of 4)

[The questions on this form page pertained to the *environmental apathy* perspective.]

- The whole pollution issue has never upset me too much since I feel it's somewhat overrated.
- I don't care about environmental problems.
- My personal welfare is independent of the welfare of the natural world.
- I'm really not willing to go out of my way to do much about ecology since that's the government's job.
- Pollution is not personally affecting my life.

* * *

Submit responses?

This is the end of the questionnaire. Advancing to the next page will submit your responses.