

Studier i Pædagogisk Filosofi

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Sustainability and Education

– Philosophical Perspectives

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Adresse:
Studier i Pædagogisk Filosofi /v. Jørgen Huggler
Aarhus Universitet – DPU
Tuborgvej 164
2400 København NV, Danmark
<https://tidsskrift.dk/spf/index>

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Editorial

Inga Bostad og Ole Andreas Kvamme

Utdanning og bærekraft

– filosofiske perspektiver

Totalt peker økokrisen på behovet for en omvurdering av de fundamentale verdier som vår kultur er bygget opp omkring og som vår skole har hatt til oppgave å overføre til de kommende generasjoner.¹

In the Anthropocene the state of nature demands that new ways of teaching and thinking about education are thought through and put into words so that leaders and teachers alike will gain a new conceptual navigation tool to use in their attempts to educate humanity out of the current planetary crisis.²

Dette temanummeret av *Studier i Pædagogisk Filosofi* tar opp grunnleggende og utfordrende problemstillinger knyttet til utdanning og bærekraft. Hvilke motsetninger og paradokser er tydelige i dag? Hva er det som møter oss når vi bruker bærekraft som linse til å forstå utdanning og opplæring, og hvordan kan ulike begreper og idealer om utdanning, læring og lek, kaste lys over forestillinger om bærekraft og miljøkrise? Temaet fortjener en historisk innramming. Det er nærmere 50 år mellom sitatene ovenfor. Bjarne Bjørndal og Sigmund Lieberg skriver i 1974 en innføring i økopedagogikk fra ståstedet sitt ved Pædagogisk Forskningsinstitutt, Universitetet i Oslo. Jonas Andreasen Lysgaard, Stefan Bengtsson og Martin Hauberg-Lund Laugesen har nylig gitt ut et knippe pedagogisk-filosofiske essays fra vår egen tid. Begge utgivelsene forholder seg til en historisk situasjon, henholdsvis økologisk krise og antropocen, som de mener stiller krav til pedagogisk omvurdering, endring,

1 Bjarne Bjørndal og Sigmund Lieberg, *Innføring i økopedagogikk* (Oslo: Universitetet i Oslo, 1974), 8.

2 Jonas Andreasen Lysgaard, Stefan Bengtsson og Martin Hauberg-Lund Laugesen, *Dark Pedagogy: Education, Horror and the Anthropocene* (Cham: Springer International Publishing, Palgrave Studies in Education and the Environment, 2019), 15, <https://link.springer.com/book/10.1007%2F978-3-030-19933-3>.

Inga Bostad, Universitetet i Oslo
Email: Inga.bostad@iped.uio.no

Ole Andreas Kvamme, Universitetet i Oslo
Email: o.a.kvamme@ils.uio.no

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fornyelse. Andre steder i begge framstillingene knyttes også det reflekssive elementet på ulike måter til dannelsesidealet i nordeuropeisk pedagogisk og didaktisk tenkning.

Bjørndal og Lieberg skriver i en tid hvor begreper som klimaendring, globalisering og bærekraft ennå ikke er tatt i bruk. Lysgaard, Bengtsson og Laugesen befinner seg derimot innenfor en historisk kontekst der den globale oppvarmingen, hovedsakelig forårsaket av menneskelig utslipp av klimagasser, allerede gjør skade på menneskelig og mer-enn-menneskelig liv. Det er den klodeforandrende kraften i menneskelig aktivitet som i dag knyttes til begrepet *antropocen*.³

Bærekraftig utvikling har siden 1980-tallet vært FNs navn på en utvikling som "sikter mot å dekke nåtidens behov og målsetninger uten å sette evnen til å dekke framtidens behov i fare,"⁴ i 2015 fulgt opp av FNs generalforsamling i Agenda 2030.⁵ Innenfor deler av bærekraft-agendaen har det vært framskritt, ikke minst på felter som helse og utdanning. Men sosial ulikhet vokser. Og på flere områder har utviklingen gått feil vei. Både Klimakonvensjonen og Konvensjonen om biologisk mangfold inngår i bærekraftagendaen, men her er historien preget av notoriske brudd på målsettinger og løfter om pålagte begrensninger og utslippskutt. Det biologiske mangfoldet reduseres med stor hastighet, økosystemer forsvinner, og i klimaspørsmålet er tiden for å oppfylle målsettinger som er ansvarlige overfor framtidige generasjoner, i ferd med å renne ut. Som Inger Andersen, leder av FNs miljøprogram, uttalte nylig i en velkjent appell i forkant av COP 25 i Madrid: "Our collective failure to act early and hard on climate change means we must now deliver deep cuts to emissions of over 7 % each year, if we break it down evenly over the next decade. This shows that countries simply cannot wait."⁶

I denne situasjonen kan pedagogikk ikke bare få nye oppgaver, men deler av grunnlagstenkningen rundt læring og kunnskap må diskuteres på andre måter. Hvordan kan ny kunnskap om natur, miljø og klima formidles, og hvordan kan vi samtidig stimulere til undring og omsorg for den naturen vi er en del av? Forfatterne av *Dark pedagogy* som ble sitert innledningsvis, viser – inspirert blant annet av spekulativ realisme – hvordan pedagogikken tar opp i seg oppgaver i *antropocen*, som involverer sorgarbeid og eksistensielle problemstillinger. Den pedagogiske filosofen Ingerid Straume har på sin side tatt til orde for å søke etter nye fortellinger om en menneskeskapt framtid som bryter med den moderne forestillingen om ekspanderende kontroll.⁷

3 Clive Hamilton, Christophe Bonneuil, og Francois Gemenne, *The Anthropocene and the global environmental crisis. Rethinking modernity in a new epoch* (New York: Routledge, 2015).

4 Verdenskommisjonen for miljø og utvikling. *Vår felles framtid* (Oslo: Tiden Norsk Forlag, 1987), 8.

5 De forente nasjoner, *Transforming Our World: The 2030 Agenda for Sustainable Development*. FNs generalforsamling. Resolution 70/1, 2015, <https://sustainabledevelopment.un.org/index.php?page=view&type=111&nr=8496&menu=35>.

6 Fiona Harvey, "UN calls for push to cut greenhouse gas levels to avoid climate chaos," *The Guardian*, 26 November, 2019, <https://www.theguardian.com/environment/2019/nov/26/united-nations-global-effort-cut-emissions-stop-climate-chaos-2030>.

7 Ingerid S. Straume, *En menneskeskapt virkelighet. Klimaendring, sosiale forestillinger og pedagogisk filosofi* (Oslo: Res Publica, 2016).

Inger Andersen og FNs miljøprogram forholder seg til FNs Agenda 2030 som med sine 17 bærekraftsmål vil prege det kommende tiåret. Her er utdanning først og fremst knyttet opp mot mål 4. Med denne forankringen fortsetter UNESCO sitt globale utdanningsprogram *utdanning for bærekraftig utvikling*, som reflekteres i nasjonale utdanningsystemer over hele verden. Satsingen er betydningsfull, og den vil trenge kritisk, pedagogisk refleksjon. En debatt som har fulgt bærekraftagendaen siden 1980-tallet er knyttet til hvorvidt selve begrepet bærekraftig utvikling, med sin vektlegging av økonomisk vekst (mål 8 i Agenda 2030), innebærer en selvmotsigelse. Den kanadiske pedagogen David Selby, grunnleggeren av *Sustainability Frontiers*, har lenge tatt til orde for å erstatte begrepet med bærekraftig sammentrekning eller måtehold,⁸ en betegnelse som får fram en hovedutfordring som i alle fall den rikeste delen av verdens befolkning står overfor. I Norge blir bærekraftig utvikling innført som et tverrfaglig tema i Fagfornyelsen, den pågående reformen av norsk skole.⁹ I forlengelsen av dette kunne vi spørre: Hva ville det betydd, eksempelvis for den nasjonale forståelsen av Norge som olje- og gassnasjon,¹⁰ om det var bærekraftig måtehold som ble innført som tverrfaglig tema i skolen?

Hamilton, Bonneuil og Gemeine tar til orde for at humaniora og samfunnsvitenskap framover må forholde seg til de to sentrale elementene i tesen om antropocen.¹¹ For det første menneskehetens forandrende kraft i vår tid av klodens historie. For det andre at alle klodens beboere i tiårene som kommer vil bli konfrontert med miljømessige forandringer av en hittil ukjent skala og hastighet. Tyngdepunktet i de ulike bidragene i dette temanummeret av *Studier i Pædagogisk Filosofi* ligger på det første av disse to elementene, men også det siste blir berørt. Og de gir alle eksempler på hvordan en historisk situasjon med økologisk krise og bærekraftkrise initierer pedagogisk nytenkning.

Kvamme analyserer i sin artikkel Greta Thunbergs appeller i skolestreikene for klima i perioden september 2018 til april 2019. Sentralt står Thunbergs bruk av Parisavtalen fra 2015. Her appellerer hun til verdier nedfelt i avtalen og forankret i FN-konvensjoner og bruker dem til å kritisere fraværet av politisk oppfølging. I Parisavtalens mangel på stødige ansvarliggjøringsmekanismer stiller Thunberg og de streikende ungdommene politikerne til ansvar. Autoriteten hentes på den ene siden fra fellesverdiene vedtatt av FN, på den andre siden fra å være barn og unge som representerer framtidens liv på kloden. Med henvisning til Seyla Benhabib forstår Kvamme dette som et uttrykk for en kritisk kosmopolitanisme. Fellesverdier som gjelder alle, tas i bruk av ungdommene som kritiske redskaper i deres krav om beskyttelse. Samtidig foreslår han å betrakte skolestreikene som en parallell

8 David Selby, "Education for Sustainable Contraction as Appropriate Response to Global Heating", i red. John Bencze and Steve Alsop, *Activist Science and Technology Education* (Dordrecht: Springer, Cultural Studies of Science Education, 2014), 165–182.

9 Kunnskapsdepartementet (2016). *St.meld. nr. 28 (2015–2016). Fag – Fordypning – Forståelse. En fornyelse av Kunnskapsløftet* (Oslo: Kunnskapsdepartementet, 2016).

10 Norge er i dag verdens tredje største gassprodusent og åttende største oljeprodusent. Olje- og energidepartementet, "Oil and Gas", sett 10. november 2019, <https://www.regjeringen.no/en/topics/energy/oil-and-gas/id1003/>.

11 Hamilton, Bonneuil og Gemeine, *The Anthropocene and the global environmental crisis*, 3–4.

til sivil ulydighet. I bruddet med elevrollen trer en samfunnsgruppe uten stemmerett og politisk innflytelse fram som demokratiske borgere og krever politisk innflytelse.

Bostad og Hessen argumenterer i sin artikkel for nødvendigheten av å utvide naturfagsundervisning med undring og engasjement; kunnskap og omsorg for naturen kan og bør ses i et større perspektiv knyttet til menneskets tilhørighet til naturen. Ved å ta utgangspunkt i de nylig vedtatte verdier og prinsipper for grunnopplæringen i Norge¹² viser de hvordan en forståelse og opplevelse av ansvar for, og samhörighet med, naturen, kan inspirere normative handlinger. Artikkelen viser hvordan et biologisk og et filosofisk perspektiv kan kombineres, med bakgrunn fra dypøkologien, verdi-basert økologi og dannelsesperspektiver i pedagogisk filosofi. Forfatterne argumenter for at det er et økende behov for å se grunnleggende vitenskapelig innsikt og kunnskap i sammenheng med barn og unges utforskerglede og naturopplevelser. Kritisk refleksjon kan både hemme og fremme en slik opplevelse av tilhørighet til naturen.

Helen Kopnina argumenterer i sin artikkel for verdien av en økopedagogisk nytenkning gjennom bruk av aktivistiske metoder og kulturuttrykk. Gjennom å analysere hvordan finansstudenter reflekterer over filmen «If a Tree Falls; a Story of the Earth Liberation Front» viser hun at en form for bærekraftig utdanning som fremhever aktivisme kan lære oss mer om økologisk medborgerskap og kritisk tenkning enn mer tradisjonell pedagogikk. Basert på blant annet Paulo Freires filosofi, argumenterer hun for at årsaker til klimaendringer og klimakriser er å finne i de sosiale og politiske rammene som former vår behandling av dyr, og at en større bevisstgjøring av menneskets ansvar og rettigheter kan fremmes gjennom aktivistiske og radikale læringsformer.

I Haukeland og Lund-Kristensens artikkel er det den livskraftige barnehagen som er tema. De viser her at en økopedagogisk og filosofisk tilnærming til barnehagepedagogikken kan fremme en naturvennlig og bærekraftig utvikling. Artikkelen er en gjennomgang av et aksjonsforskningsprosjekt fra perioden 2013-2018 i Klokkergaarden natur- og kulturbarnehage i den norske byen Drammen. Gjennom de tre temaene livsmestring, demokrati og bærekraftig utvikling argumenterer forfatterne for at et begrep som «livskraft», det vil si en kraft til vital selvpopprettholdelse og til kreativ selvtutfoldelse, kan fornye og styrke barns forhold til naturen og til sine egne liv. Artikkelen konkluderer med at den livskraftige barnehagen kan fremme en økodannelse mellom økosystemet, fellesskapet og naturen, og at den er en måte å realisere temaene livsmestring, demokrati og bærekraftig utvikling på. Slik sett er det et grunnlag for også å fremme den livskraftige skolen.

Da den amerikanske filosofen Randall Curren, som lenge har vært en sentral bidragsyter til pedagogisk filosofi, i 2005 opplevde at hjembyen New Orleans ble smadret av orkanene Katrina og Rita, ble hans faglige interessefelt også endret. Han erkjente at trusselen fra menneskeskapte klimaendringer hadde fått liten oppmerksomhet blant mange filosofer, og har

12 Kunnskapsdepartementet, Overordnet del - verdier og prinsipper for grunnopplæringen, 2017, <https://www.regjeringen.no/contentassets/53d21ea2bc3a4202b86b83cfe82da93e/overordnet-del---verdier-og-prinsipper-for-grunnopplaringen.pdf>.

senere bidratt til å bøte på dette, blant annet gjennom det tverrfaglige samarbeidet med geologen Ellen Metzger. Dette samarbeidet førte i 2017 til utgivelsen *Living Well Now and in the Future. Why Sustainability Matters*.¹³ Her har også utdanning fått en sentral plass. Vi publiserer i dette temanummeret et intervju med Curren der han kommenterer ulike sider ved denne utgivelsen, og også kommer inn på vilkårene for akademisk arbeid under den sittende amerikanske administrasjonen. Currens vei inn i dette fagfeltet er løfterik med tanke på behovet for flere filosofiske perspektiver på utdanning og bærekraft.

13 Randall Curren og Ellen Metzger, *Living Well Now and in the Future. Why Sustainability Matters* (Cambridge, Massachusetts: The MIT Press, 2017).

Ole Andreas Kvamme

School Strikes, Environmental Ethical Values, and Democracy

Abstract

The aim of this paper is to contribute to an understanding of the school strikes for the climate, initiated in August 2018 by the Swedish student Greta Thunberg, soon to become a global social movement involving hundreds of thousands of students. I examine 10 speeches of Thunberg as recontextualizations of environmental ethical values that have been formulated within the context of United Nations. With this approach, guided by an ethical and educational interest grounded in moral education, and informed by conceptions of Seyla Benhabib, this paper demonstrates how students become democratic citizens appropriating the concern for future generations as a cosmopolitan claim in a resistance to exclusions from current politics.

Key words

School strikes, cosmopolitanism, democratic iterations, jurisgenerativity, moral education, environmental and sustainability education

1 Introduction

There is a salient contradiction established by the global sustainable development initiatives.¹ On the one hand, since the 1980s, the agenda has been grounded in a diagnosis of a current crisis and the need for transformative action, designated sustainable development. On the other hand, throughout the course of the history of this agenda, unsustainable practices have persisted, and the situation has deteriorated in vital areas. The most illustrating case is obviously anthropogenic climate change, as documented by the Intergovernmental Panel on Climate Change.² A similar case can be made by the rapid loss of biodiversity and the mass extinction of species, as documented by the Intergovernmental

1 United Nations, *Resolution 70/1. Transforming our world: The 2030 Agenda for Sustainable Development* (2015), <https://sustainabledevelopment.un.org/index.php?page=view&type=111&nr=8496&menu=35>; World Commission on Environment and Development, *Our common future* (1987), <http://www.undocuments.net/our-common-future.pdf>.

2 Intergovernmental Panel on Climate Change (IPCC), *Global warming of 1.5° C: Special report* (2018), <https://www.ipcc.ch/sr15/>.

Ole Andreas Kvamme, University of Oslo, Norway
email: o.a.kvamme@ils.uio.no

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Science-Policy Platform on Biodiversity and Ecosystem Services.³ Furthermore, although millions of people have experienced improvements in living standards, the unequal distribution of wealth is increasing,⁴ in contrast with the explicit aim expressed in the sustainability agenda.⁵

The contradiction between an acknowledged crisis and lack of transformative action is made even more explicit when the normative tenet of sustainable development—to protect and improve life on earth now and in the future—is accentuated.⁶ The world community⁷ acknowledges that life on earth is under threat, but does not act adequately upon this understanding. The values here addressed, most significantly the concerns for present and future generations and the more-than-human world⁸, have been expressed in pivotal United Nations conventions⁹ and also reflected in the United Nations Educational, Scientific and Cultural Organization's (UNESCO)¹⁰ global education policy for sustainable development.

In an ongoing research project, I explore how the environmental ethical values¹¹ addressed by United Nations and UNESCO are recontextualized in Norwegian education policy¹²

3 Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. *Summary for policymakers of the global assessment report on biodiversity and ecosystem services*, May 6, 2019, https://www.ipbes.net/sites/default/files/downloads/spm_unedited_advance_for_posting_htn.pdf.

4 Facundo Alvaredo, Lucas Chancel, Thomas Piketty, Emmanuel Saez, and Gabriel Zucman, *World inequality report. Executive summary* (World Inequality Lab, 2018), <https://wir2018.wid.world/files/download/wir2018summary-english.pdf>.

5 United Nations, "Resolution 70/1."

6 Peter Kemp, *Citizen of the world: The cosmopolitan ideal for the twenty-first century* (Amherst, NY: Humanity Books, 2011).

7 In this singular form the plural, diverse world population in which power and wealth is unequally distributed, should be considered.

8 The formulation "more-than-human world" is increasingly in use in scholarly literature (see e.g. Bob Jickling, Heila Lotz-Sisitka, Rob O'Donoghue, and Akpezi Ogbuigwe, *Environmental Education, Ethics & Action: A Workbook to Get Started* (Nairobi: UNEP, 2006)), evading the designation of the non-human as a negative opposite to what is human.

9 United Nations. *Universal Declaration of Human Rights*, A/RES/217 (III)[A] (1948), <https://www.un.org/en/universal-declaration-human-rights/>; United Nations, *The Convention on Biological Diversity*, 31 I.L.M. 818 (1992). (Rio de Janeiro: United Nations, 1992), <https://www.cbd.int/convention/text/default.shtml>; United Nations, *United Nations Framework Convention on Climate Change*, FCCC/INFORMAL/84 (1992), <https://unfccc.int/resource/docs/convkp/conveng.pdf>.

10 UNESCO, *Framework for the UN DESD international implementation scheme*, ED/DESD/2006/PI/1 (Paris: UNESCO workshops, 2006), <https://unesdoc.unesco.org/ark:/48223/pf0000148650>; UNESCO, *UNESCO Roadmap for Implementing the Global Action Programme on Education for Sustainable Development*, ED-2014/WS/31 (Paris: UNESCO, 2014), <https://sustainabledevelopment.un.org/content/documents/1674unescoroadmap.pdf>

11 I here adopt the term "environmental ethical values" from David Kronlid and Johan Öhman, "An environmental ethical conceptual framework for research on sustainability and environmental education," *Environmental Education Research*, 19, no. 1 (2013): 20–44. They distinguish between a value-oriented and a relation-oriented approach within environmental ethics. Environmental ethical values are not seen as abstract concepts, but are qualified with regard to people and nature. Kronlid and Öhman develop a sophisticated conceptual framework which is not applied in this study.

12 Ole Andreas Kvamme, "Blurring the image of the other? The recontextualization of environmental ethical values in Norwegian education policy documents," in *Challenging life. Existential questions as a resource for education*, eds., Jari Ristiniemi, Geir Skeie, and Karin Sporre (Münster: Waxmann Verlag, 2018), 359–381.

and educational practices addressing sustainability. A Norwegian classroom study observing moral education¹³ instantiates how this contradiction is individualized, depoliticized, and regulated by a carbon footprint measurement. Within the field of environmental and sustainability education, this individualizing tendency is well-documented¹⁴ and is seen as an expression of the hegemony of neoliberalism.¹⁵

Considering this background, it is conspicuous that a hallmark of the school strikes for the climate, which emerged in Sweden in August 2018¹⁶ and rapidly spread to other countries, is the political accentuation of the contradiction delineated above. These strikes mobilized thousands of students in the spring of 2019, when reportedly more than 1.4 million students around the world took part in the demonstrations.¹⁷

The disobedient act of breaking with compulsory school attendance, establishes an uncertain and ambiguous relation between the school strikes and formal education. A closer look at the normative dimension expressed by environmental ethical values may contribute to an understanding of the school strikes and moral education, even beyond the field of formal education. I here acknowledge that “education is something larger in scope and often more persistent in impact than schooling.”¹⁸

1.1 Aims, proceedings and methodological considerations

In the present article, I study recontextualizations of environmental ethical values, as expressed by the United Nations and UNESCO, in the school strikes for the climate. The values here addressed are the concerns for present and future generations of human beings and the more-than-human world.¹⁹ More specifically, this study is carried out by analyzing some key speeches by Greta Thunberg, the central initiator and public figure of the

13 A preliminary analysis is presented in Ole Andreas Kvamme, “The significance of context: Moral education and religious education facing the challenge of sustainability,” *Discourse and Communication for Sustainable Education* 8, no. 2 (2017): 24–37.

14 Therese Hume and John Barry, “Environmental education and education for sustainable development”, in *International encyclopedia of the social and behavioral sciences*, eds., Neil J. Smelser & Paul B. Baltes (Amsterdam, the Netherlands: Elsevier, 2015), 733–739.

15 John Huckle and Arjen E.J. Wals, “The UN decade of education for sustainable development: Business as usual in the end”, *Environmental Education Research* 21, no. 3 (2015): 491–505. Malin Ideland and Claes Malmberg, “Governing eco-certified children through pastoral power: Critical perspectives on education for sustainable development,” *Environmental Education Research* 23, no. 2 (2015): 173–182.

16 Other initiatives have anticipated the school strike for climate, like the Climate Strike emerging from the Plant-for-the-Planet network calling for school strikes on 30 November 2015, the first day of COP 21, the United Nations conference in Paris that followed up the United Nations Framework Convention on Climate Change. See “Climate Change Call for a global Climate Strike on November 30, 2015”, accessed November 1, 2019, <https://www.climate-strike.net/call2015/>.

17 Damian Carrington, “School climate strikes: 1.4 million people took part, say campaigners,” *The Guardian*, March 19, 2019, <https://www.theguardian.com/environment/2019/mar/19/school-climate-strikes-more-than-1-million-took-part-say-campaigners-greta-thunberg>.

18 David T. Hansen, *The teacher and the world: A study of cosmopolitanism as education* (London, United Kingdom: Routledge, 2011).

19 UNESCO, *Framework for the UN DESD*, 15–16.

school strikes for climate.²⁰ In part 2 of the article, ten speeches are analysed, held in the period from September 8, 2018 to April 23, 2019.²¹ In part 3 I further explore these recon-textualizations from the perspective of critical cosmopolitanism, and in part 4 I proceed by considering the ambiguous relationship between the school strikes and formal education, introducing the analogy of civil disobedience, and suggesting that the students in the school strikes are transformed to democratic citizens.

Methodologically, this study is an instance of reflexive qualitative research²² with the critical hermeneutics of Ricoeur²³ as a central reference. Two interrelated aspects are significant. First is the function of distanciation as a step in the hermeneutical process, allowing for the analysis of structure, patterns, and tensions in the studied material. Second, a distance to the material under interpretation opens for the practice of ideology critique.²⁴ In the following, this perspective is further qualified by accentuating the utopian element of environmental ethical values,²⁵ exploring their potential for immanent critique, parallel with Hegel's identification of critical standards given in the historical process.²⁶ Ricoeur is not promoting any particular hermeneutic strategy. In this case I have initially mapped the environmental ethical values in Thunberg's speeches,²⁷ disclosing patterns and tendencies.

20 The choice is warranted by Thunberg's key role in the school strikes for the climate, with the aim of identifying some central tenets and tendencies to be further considered. The choice also demonstrates certain limitations of this study. If I had focused on the school strikes for the climate in particular political contexts, the manifold social movement of the school strikes would have become visible, including the contentious discourses and controversies that have arisen in numerous countries.

21 Greta Thunberg, Speech delivered at People's Climate March, Stockholm, September 8, 2018, https://www.youtube.com/watch?v=igt_D-6sGHU; Greta Thunberg, Speech delivered to COP 24, plenary session, December 12, 2018, https://www.fridaysforfuture.org/greta-speeches#greta_speech_dec3_2018; Greta Thunberg, (2018c). Speech delivered to UN General Secretary António Guterres, COP 24, December 3, 2018, <https://www.fridaysforfuture.org/greta-speeches>; Greta Thunberg, Ted Talk: The disarming case to act right now on climate change. Stockholm, November 2018, https://www.ted.com/talks/greta_thunberg_the_disarming_case_to_act_right_now_on_climate; Greta Thunberg, Speech delivered at Extinction Rebellion protest in London, April 22, 2019, <https://www.youtube.com/watch?v=hKMX8WRw3fc>; Greta Thunberg, Speech delivered at World Economic Forum, Davos, January 22, 2019, <https://www.fridaysforfuture.org/greta-speeches>; Greta Thunberg, Speech delivered during the EESC event "Civil Society for rEUnaissance," February, 21, 2019, <https://www.eesc.europa.eu/en/news-media/videos/speech-greta-thunberg-climate-activist>; Greta Thunberg, Speech delivered outside conference building, World Economic Forum, Davos, January 22, 2019, <https://www.fridaysforfuture.org/greta-speeches>; Greta Thunberg, Speech delivered to British members of Parliament, April 23, 2019, <https://www.theguardian.com/environment/2019/apr/23/greta-thunberg-full-speech-to-mps-you-did-not-act-in-time>; Greta Thunberg, Speech delivered to EU Parliament, April 16, 2019, <https://speakola.com/ideas/greta-thunberg-speech-to-eu-parliament-2019>.

22 Mats Alvesson and Kaj Sköldböck, *Reflexive methodology: New vistas for qualitative research* (London, United Kingdom: Sage Publications Ltd, 2009).

23 Paul Ricoeur, *Hermeneutics and the human sciences* (Cambridge, United Kingdom: Cambridge University Press, 1981).

24 Ricoeur, *Hermeneutics and the human sciences*.

25 Paul Ricoeur, "Ideology and utopia," in *From text to action: Essays in hermeneutics II* (London, United Kingdom: Continuum, 2008), 300–316.

26 Robert J. Antonio, "Immanent Critique as the Core of Critical Theory: Its Origins and Developments in Hegel, Marx and Contemporary Thought," *The British Journal of Sociology* 32, no. 3 (1981): 330–345.

27 The analysis has involved the categorization of the three addressed values, with synonyms and corresponding words, carried out in repeated readings – in which even more words were added, ascertained by the employment of the search function of Microsoft Word. I have identified the presence of first-person singular / plural to identify

The central aim has here not been to elucidate the differences between the speeches in question, but rather to accentuate common characteristics, treating the ten speeches as one text corpus. Nuances in the material are nevertheless addressed, and the variety of contexts is considered.

These texts are speeches which have been held in public. The speech genre necessitates to bring in the rhetorical situation in the analyses, in the following examined with reference to Bitzer,²⁸ and a sensitivity for the particularity of context. In Thunberg's speeches the rhetorical situation is enriched and complicated by the use of social media in a globalized world.

Accommodating for the mediations between the general claims made by United Nations and the specific contexts of the school strikes for the climate, political theorists are considered, mainly the critical cosmopolitanism of Seyla Benhabib, conceiving of recontextualizations of universal claims as democratic iterations. Key concepts in Benhabib's account (presented below) is brought into the analyses and discussion. Bernstein's²⁹ perspective on ideology and pedagogy is employed in the discussion of recontextualizations emerging at the boundary between the school institution and the public space. Education is in the following understood as critical formation or *Bildung*, as expressed in the late Klafki's³⁰ renewal of the German didaktik tradition. Although formal moral education is not particularly explored, the interest in environmental ethical values is conditioned by my background in this particular research field. Moral education is conceived of as an approach to education engaged in the fundamental questions of what is right and good, mediating between an individual and a societal perspective.³¹ Moral education may be addressed in particular school subjects and be a cross-curricular concern involved in all school subjects. Embedded in this conception, this study is a contribution to moral education.

expressions of *my* and *our* needs, concerns, and expressions of *rich / poor / (un-)righteous / (un-)righteousness / (in-)just / (in-)justice / (in-)equality / (in-)equity* to discern aspects of intragenerational concerns. To identify references to the more-than-human world, I have employed the words *nature, environment, biosphere, ecology, ecosystems, animals, plants, species*. Correspondingly, future generations have been identified through *future, future generations, and coming generations*. Other expressions have been considered and employed, most significantly sustainability and sustainable development.

28 Lloyd F. Bitzer, "The rhetorical situation," *Philosophy & Rhetoric* 1, no. 1 (1968): 1–14.

29 Basil Bernstein, *Pedagogy, symbolic control and identity: theory, research, critique* (Lanham, NJ: Rowman & Littlefield Publishers, Inc, 2000).

30 Wolfgang Klafki, "Characteristics of Critical-Constructive Didaktik," in *Didaktik and/or Curriculum. An International Dialogue*, eds., Bjørg Gudem and Stefan Hopmann (New York: Peter Lang, 1995), 307–328.

31 Such a mediation is of particular importance addressing the complex issues of sustainability in education. Olof Franck's remark on ethics within sustainability education is a pertinent reminder: "[T]he main ethical question to be focused on within sustainability didactics is not, 'Is this or that specific action to be judged right or wrong?' but, 'Does this or that action contribute to the development of a good common life, a good society and a good world?' (Quoted in Olof Franck and Christina Osbeck, "Challenging the concept of ethical literacy within Education for Sustainable Development (ESD) storytelling as a method within sustainability didactics," *Education* 3–13 46, no. 2 (2018), DOI: 10.1080/03004279.2016.1201690).

1.2 Globalization and critical cosmopolitanism

The school strikes for the climate³² have emerged in a time period distinguished by processes of globalization. Globalization involves the extension of relations across the world space.³³ It is envisaged as a manifold phenomenon, including economic globalization promoted by global capitalism, but also involving technical, scientific, cultural, and political globalization with a profound impact on life everywhere on the planet.³⁴ Papastephanou³⁵ even includes environmental globalization with reference to the ecological crisis and global warming. Political globalization refers to the establishment of transnational political institutions and practices, including the United Nations, and education policy expressed through organizations like the OECD and UNESCO.³⁶ In this respect, globalization is closely connected with the concept of cosmopolitanism.

Cosmopolitanism in the modern view is often conceived of as an ethical or political response to the negative effects of globalization,³⁷ accentuating both the equal moral worth of every human being and obligations that belong to everyone,³⁸ as expressed in the United Nations' human rights agenda. Cosmopolitanism has been criticized for being lofty, idealistic, and all too consensus oriented and for ignoring particular contexts, tensions, conflicts, and plurality.³⁹ One of few contributions within environmental and sustainability education addressing cosmopolitanism has come from Sund and Öhman,⁴⁰ focusing on the problem of depoliticizing education by referring to universal, common values, a concern I return to in the conclusion. From such critique numerous contributions have

32 The emerging social movement is distinguished by various names, like Fridays for Future, <https://www.fridays-forfuture.org/>; School Strike 4 Climate, <https://www.schoolstrike4climate.com/>; and Climate Strike, <https://www.climatestrike.net/> (with numerous additional versions in other languages). In the following "the school strikes for the climate" is employed, when referring to the broad school strike phenomenon.

33 Peter Christoff and Robyn Eckersley, *Globalization and the environment* (Lanham, MD: Rowman & Littlefield Pub., 2013).

34 David Held and Anthony G. McGrew, *Globalization/Anti-Globalization* (Cambridge, United Kingdom: Polity Press, 2002).

35 Marianna Papastephanou, *Thinking differently about cosmopolitanism: Theory, eccentricity, and the globalized world* (Boulder, CO: Paradigm Publishers, 2012).

36 Fazal Rizvi and Bob Lingard, *Globalizing education policy* (Abingdon: Routledge, 2010).

37 Kemp, *Verdensborgeren*; Claudia Schumann, "Cosmopolitanism and globalization in education," in *International handbook of philosophy of education*, ed. Paul Smeyers (Springer International Handbooks of Education, 2018), 821–831.

38 Gillian Brock, "Cosmopolitanism," in *Encyclopedia of Political Theory*, ed. Mark Bevir (Thousand Oaks, CA: SAGE Publications, Inc., 2010), 316–322, DOI: [dx.doi.org/10.4135/9781412958660.n103](https://doi.org/10.4135/9781412958660.n103).

39 Ulrich Beck, *Cosmopolitan vision* (Cambridge, United Kingdom: Polity Press, 2006); Sharon Todd, *Toward An imperfect education: Facing humanity, rethinking cosmopolitanism* (Boulder, CO: Paradigm Publishers, 2009); Seyla Benhabib, *Dignity in adversity: Human rights in troubled times* (Oxford, United Kingdom: Polity Press, 2011).

40 Louise Sund and Johan Öhman, "Cosmopolitan perspectives on education and sustainable development: Between universal ideals and particular values," *Utbildning & Demokrati*, 20, no. 1 (2011): 13–34; Louise Sund and Johan Öhman, "On the need to repoliticise environmental and sustainability education: Rethinking the postpolitical consensus," *Environmental Education Research* 20, no. 5 (2014): 639–659. DOI: [10.1080/13504622.2013.833585](https://doi.org/10.1080/13504622.2013.833585).

emerged that take context into account, for instance, rooted cosmopolitanism,⁴¹ eccentric cosmopolitanism,⁴² and critical cosmopolitanism.⁴³

The central problem addressed by Benhabib in her critical cosmopolitanism is the relationship between universal norms and specific contexts. Her approach is distinguished by addressing the space for interpretation. The dynamic and often conflicting processes of contextualizing cosmopolitan norms is expressed in her concept of *jurisgenerativity*, which Benhabib draws from Robert Cover,⁴⁴ referring to how laws acquire meaning in specific contexts that the laws themselves cannot control. Thus, “there can be no rules *without* interpretation,”⁴⁵ and subsequently—because of the multitude of hermeneutical contexts—a variety of interpretations emerge for which the rules cannot control.

Jurisgenerativity is not only a condition indicating a descriptive dimension. According to Benhabib, a normative dimension is also involved; the jurisgenerative capacity of the rules may be opened up or narrowed down. From jurisgenerativity follows Benhabib’s key concept of *democratic iterations* of the universal claims in their new contexts, involving processes of public argument and deliberation. When “appropriated by people as their own, they lose their parochialism as well as the suspicion of Western paternalism often associated with them.”⁴⁶

Benhabib’s critical cosmopolitanism is a continuation of her moral philosophy developed in the 1980s and published in *Situating the Self* in 1992. This is a rethinking of Habermas’ discourse ethics, acknowledging the significance of the situated self in moral deliberation. From Hannah Arendt, Benhabib brings in the concept of *narrativity*, emphasizing the web of relations as an inevitable trace of the human condition. Benhabib claims that actions are identified narratively: “To identify an action is to tell the story of its initiation, of its unfolding, and of its immersion in a web of relations constituted through the actions and narratives of others.”⁴⁷ *Enlarged thought*⁴⁸ is the crucial methodological aspect of this interactive universalism, signifying the exercise of moral judgment by a situated self. Situated in its own position, the self acknowledges the perspective of others who are differently positioned. This practice implies the ability to know how to listen to what others are saying. Benhabib

41 Kwame Anthony Appiah, *Cosmopolitanism: Ethics in a world of strangers* (New York, NY: Norton, 2007).

42 Papastephanou, *Thinking differently about cosmopolitanism*.

43 Here the central reference in the following is Seyla Benhabib, *Dignity in Adversity*. While a positive cosmopolitanism, according to Benhabib, affirms global oneness and unity, a critical cosmopolitanism explores the tensions at the heart of the cosmopolitan project, focusing on “the unity and diversity of human rights; on the conflicts between democracy and cosmopolitanism; on the vision of a world with porous borders and the closure required by democratic sovereignty.” (Benhabib, *Dignity in Adversity*, 2)

44 Robert M. Cover, “The Supreme Court, 1982 Term -- Foreword: Nomos and Narrative”, *Faculty Scholarship Series. Paper 2705* (1983), http://digitalcommons.law.yale.edu/fss_papers/2705

45 Benhabib, *Dignity in Adversity*, 125.

46 Benhabib, *Dignity in Adversity*, 129.

47 Benhabib, *Situating the Self*, 127.

48 The concept was originally coined by Hannah Arendt on the basis of Kant’s reflective judgment of aesthetical objects, which Arendt applied to the judgment exercised within the political sphere.

however, widens the perspective by adding, “or when the voices of others are absent, to imagine to oneself a conversation with the other as my dialogue partner.”⁴⁹

Decisive in Benhabib’s critical cosmopolitanism is the distinction between norms of international law, which govern the relationships between states, and cosmopolitan norms, which “accrue to individuals considered as moral and legal persons in a worldwide civil society.”⁵⁰ Both originate as treaty-like obligations on a state level, but the peculiarity of cosmopolitan norms as expressed in the Universal Declaration of Human Rights adopted by the United Nations in 1948 and its subsequent covenants, is the way they protect individuals even within the borders of the particular states and thus limit the sovereignty of the state. Much of Benhabib’s interest has been concerned with the mediation between these two levels, decisive in this study as well.

Benhabib’s perspective opens up for the possible mediation between the moral and the political. With this in mind, the school strikes as reflected in Thunberg’s speeches may be studied as democratic iterations of the environmental ethical values universally claimed by the United Nations and UNESCO. Thus, the focus should not just be on identifying the environmental ethical values within the context of Thunberg’s speeches, as I do in part 2. This is a backdrop for an exploration of the function of the environmental ethical values within the political context of the school strikes, an exploration which begins in part 2 and is further developed in part 3. Here the recontextualizations of the environmental ethical values are conceived of as democratic iterations.⁵¹

2 The rhetorical situation and context of Thunberg’s speeches

The current analysis has involved an initial mapping of the environmental ethical values in Thunberg’s speeches, which I here sum up before considering the rhetorical situation. In her appeals, there is a clear emphasis on intergenerational concerns (the future is explicitly mentioned in nearly all the speeches),⁵² to the members of the British Parliament clearly stated as “I speak on behalf of future generations.” In a majority of the speeches concerns for the more-than-human world are expressed,⁵³ sometimes with particular reference to

49 Benhabib, *Situating the Self*, 137.

50 Benhabib, *Dignity in Adversity*, 124.

51 In Scandinavia, the Swedish scholar Karin Sporre has discussed the significance of Benhabib’s critical cosmopolitanism for education. According to Sporre, “A crucial question is how educational institutions and actors within them can open up to democratic iterations that are expressions of emerging cosmopolitan norms.” (Karin Sporre, *In search of human dignity: Essays in theology, ethics and education* (Münster, Germany: Waxmann, 2015): 237).

52 Thunberg, “COP 24, Plenary Session”; —, “COP 24, UN General Secretary”; —, “TED Talk”; —, “Extinction Rebellion”; —, “World Economic Forum”; —, “EESC Event”; —, “Members of British Parliament”; —, “EU Parliament.”

53 Thunberg, “COP 24, UN General Secretary”; —, “TED Talk”; —, “Extinction Rebellion”; —, “Inside World Economic Forum”; —, “Members of British Parliament.”

the mass extinction of species,⁵⁴ as well as intragenerational concerns with reference to equity.⁵⁵

In his classic article “The Rhetorical Situation,” Lloyd Bitzer addresses the significance of the particular situation in rhetorical discourses. This perspective may be productive to now consider how Thunberg is responding to the context of climate change.

According to Bitzer, the rhetorical situation presents “an actual or potential exigence which can be completely or partially removed if discourse, introduced into the situation, can so constrain human decision or action as to bring about the significant modification of the exigence.”⁵⁶ Bitzer suggests that the rhetorical situation involves three elements: the exigence; an audience; and constraints established by persons, events, objects, and relations that are part of the situation, including the rhetor.⁵⁷

2.1 The exigence and the audience

The exigence that Thunberg’s speeches respond to, has already been addressed in the introduction to this article. Unsustainable human practices currently harm life on earth and are threats to the conditions of future life on earth. Here all the three environmental ethical values are mobilized, demonstrating what is at stake, and establishing a global context.

The audience of a speech involves, according to Bitzer, all who have the power to improve the situation which is addressed. Within the sustainability agenda, this is a complex issue, which transcends the framing of local speeches. From the perspective of global politics,⁵⁸ coercive power, represented primarily by strong national states; productive power, represented by global corporate capitalism; and social power, including social movements, are of significance. Between these forms of power, a complex interplay is executed, shaped by cumulative inequalities of power and exclusion, designated by McGrew⁵⁹ as distorted global politics. Considering social movements, the audience may even include everyone who is engaged in bottom-up processes of changing unsustainable structures and practices. The last point is particularly pertinent to the mobilizing function of Thunberg’s speeches for the school strikes for the climate.

54 Thunberg, “COP 24, UN General Secretary”; —, “TED Talk”; —, “Extinction Rebellion.”

55 Thunberg, “COP 24, UN General Secretary”; —, “TED Talk”; —, “Inside World Economic Forum”; —, “EESC Event”; —, “Members of British Parliament”; —, “EU Parliament.”

56 Bitzer, “The rhetorical situation”, 6.

57 Bitzer’s article from 1968 is a classic within modern rhetorical research. Richard E. Vatz initiated in 1973 an important debate on the significance of the contribution of the rhetor in the establishment of the rhetorical situation. In short, according to Bitzer the rhetor is responding to a given situation. Vatz draws attention to how the situation is created by the rhetor. I cannot enter this discussion here, but will in the following accommodate for both positions: On the one hand Thunberg is responding to anthropogenic climate change threatening life on earth, on the other hand she is herself creatively forming the rhetorical situation e.g. in addressing the situation as a climate crisis. Richard E. Vatz, “The Myth of the Rhetorical Situation”, *Philosophy & Rhetoric*, 6, no. 3, (Summer, 1973):154-161.

58 Anthony G. McGrew, “Politics as distorted global politics,” in *What is Politics? The Activity and Its Study*, ed. Adrian Leftwich (Cambridge: Polity, 2004), 166–181.

59 McGrew, “Politics as distorted global politics,” 176.

United Nations may be said to instantiate the distorted global politics McGrew claims distinguish the current world order. While the United Nations is constituted by the nations of the world, there are also inbuilt asymmetries of power, like privileging the permanent members of the Security Council as well as the weak measures of accountability.

2.2 How to address a global context

The rhetorical situation delineated above is complex and contentious, with global reach. How does a rhetor approach a global context? In the 10 public appeals by Thunberg which I consider here, two patterns are conspicuous. To begin with, all the speeches, even the first one held in Stockholm on September 8, 2018, have been performed in English, recorded on site, and posted on social media.⁶⁰ As a consequence, the receivers of Thunberg's message in the specific, physical, and local contexts are continuously supplemented by followers of social media, serving a mobilizing, border-crossing function. The second pattern concerns the selection of the particular speech contexts. During the period considered here (September 8, 2018–April 23, 2019), all three forms of global power mentioned by McGrew (see above) are addressed by Thunberg: *coercive power* at the United Nations' Conference of the Parties (COP) 24 in Katowice, the EU Parliament in Strasbourg, and the British Parliament; *productive power* at the World Economic Forum in Davos; and *social power* at the People's Climate March in Stockholm on September 8, the European Economic and Social Committee (EESC) forum in Brussels, and a demonstration organized by Extinction Rebellion in London with the participation of Children's School Strike for Climate.

This is how Thunberg has contributed to what Randall Curren and Charles Dorn have designated as a *global constitutional activity*, which is an "activity through which people function and experience themselves as a global public that shapes and preserves the norms and constitutional principles that regulate the global order."⁶¹ More specifically, Thunberg is speaking to one audience (i.e., adults, who are persistently addressed as "you"), presupposing that this group has the power to perform necessary action. Concurrently, she is speaking on behalf of a "us," representing the school striking students. A conflict between generations is here exposed, and the mobilizing function of the speeches becomes visible. The fellow students are supposedly also implicit receivers of the speeches (cf. how the speeches have been posted by #FridaysForFuture).

60 A majority of the speeches studied here have been posted by #FridaysForFuture, an initiative started in August 2018 with a coordinating function. In one case, Thunberg (in the speech outside World Economic Forum) spoke directly to the camera, presumably not addressing a local audience.

61 Randall Curren and Charles Dorn, *Patriotic education in a global age* (Chicago, IL: University of Chicago Press, 2018), 123.

2.3 The significance of kairos

Considering the challenges of the rhetorical situation addressed above, it is not astounding that Thunberg's message has often been delivered in a general way.⁶² Still, the context of the rhetorical situation is made specific with reference to the dimension of time, a decisive element in her speeches. According to Bitzer, a rhetorical speech is a response to an exigence; the speaker does not herself establish the rhetorical situation. With regard to Thunberg, the exigence is obviously not her invention, but still she has effectively elucidated and condensed what is at stake, that is, the *kairos*,⁶³ which in classical rhetoric and philosophy refers to a loaded situation calling for instant action.⁶⁴

A distinct example of the presence of kairos in Thunberg's appeals is her speech at the COP 24 plenary session. There previous references to the sustainability crisis or climate crisis (e.g., the TED talk in November⁶⁵) were summed in the claim: "We cannot solve a crisis without treating it as a crisis",⁶⁶ a phrase also included in subsequent speeches. At Davos in January 2019, kairos was metaphorically addressed when Thunberg confronted the audience with the claim "Our house is on fire",⁶⁷ later replaced with "Our house is falling apart"⁶⁸ in her April 16 speech to the EU Parliament the day after the Notre Dame fire. The message delivered throughout her speeches has consistently been that the emergency situation is not being treated as an emergency, calling for necessary action. There is still time to act, but time is running out, and we have to act now.

The kairos element in Thunberg's speeches relates to all the three classical rhetorical forms of persuasion.⁶⁹ With reference to the serious message of IPCC, she is appealing to reason (logos). Speaking as a youth on behalf of future generations she is appealing to character (etos). And emphatically and persistently, the appropriation of cosmopolitan claims

62 This is the case even when referring to her home country, like in her speech at the Extinction Rebellion protest in April 2019, where she stated: "I come from Sweden, and back there is almost the same problems as here as everywhere that nothing is being done to combat the ecological and climate crisis, despite all the beautiful words and good promises."

63 Bitzer actually does not employ the concept of kairos when designating the rhetorical situation. Kairos also has a withdrawn position in Aristotle's rhetoric. According to Vestrheim, this is due to Aristotle's emphasis on theory, while kairos refers to the particular situation, which cannot be designated by general theoretical principles. Still, because kairos refers to the particular opportunity to speak, it stands out as "the starting point for all rhetoric. Theory cannot address kairos in itself, but everything theory addresses, must be assessed in relation to Kairos." [My translation from Norwegian.] Gjert Vestrheim, *Klassisk retorikk [Classical rhetoric]* (Oslo, Norway: Dreyers Forlag, 2018), 54. Bakken designates kairos as *the right moment*, and parallels the concept with Bitzer's rhetorical situation. (Jonas Bakken, *Retorikk i skolen [Rhetoric in school]* (Oslo, Norway: Universitetsforlaget, 2009), 55.

64 Kristin Sampson, "The temporality of philosophy in the *Apology*," in *Readings of Plato's Apology: Defending the philosophical life*, eds., Vivil Valvik Haraldsen, Olof Pettersson, and Oda E. Wiese Tvedt (London, United Kingdom: Lexington Books, 2018): 57–71.

65 Thunberg, "TED Talk."

66 Thunberg, "COP 24, Plenary Session."

67 Thunberg, "Inside World Economic Forum."

68 Thunberg, "EU Parliament."

69 Christof Rapp, "Aristotle's Rhetoric," ed., Edward N. Zalta, *The Stanford Encyclopedia of Philosophy*, Spring 2010 Edition, <https://plato.stanford.edu/archives/spr2010/entries/aristotle-rhetoric/>.

also is an appeal to emotions (pathos), allowing existential feelings of fear and despair to enter the climate change discourse.

3 A cosmopolitan approach to the Paris Agreement

The consideration of *kairos* above demonstrates how time is a salient constraint employed by Thunberg in her speeches. The time dimension makes the current context distinct and acute, even within the general, global scope. This issue of constraint is the third aspect of the rhetorical situation, as delineated by Bitzer. He refers to Aristotle's distinction between artistic proofs and inartistic proofs, the prior signifying constraints invented by the rhetor herself, and the latter signifying other constraints in the situation (e.g., established laws). What distinguishes Thunberg's speeches in this respect is her references to inartistic proofs, primarily the United Nations sustainability agenda. As I will now suggest, this is where she offers a cosmopolitan approach to this political struggle.

A recurring reference in Thunberg's speeches is the Paris Agreement of 2015, as in the speech delivered at the EESC event "Civil Society for reUNaissance" in February 2019. When addressing politicians, she states, "We want you to follow the Paris Agreement and the IPCC reports. We don't have any other manifests or demands."⁷⁰ The Paris Agreement is the current follow-up of the United Nations Framework Convention on Climate Change from 1992. Environmental ethical values are clearly acknowledged in the preamble's recognitions, affirmations, acknowledgments, and notices, including both the respect for human beings now and in the future and the concern for ecosystems and biodiversity, summed in the concept of equity, with heaviest burden given to developed countries.⁷¹

The Paris Agreement from 2015 was the first climate agreement addressing specific measures to be taken to reduce greenhouse gas emissions, backed by all member states of the United Nations. The common ambition presented in Article 2.1.a is the long term goal to hold "the increase in the global average temperature to well below 2 degrees Celsius above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 degrees Celsius."⁷² Additionally, in Articles 2.1b and 2.1c, adaptational measures are addressed together with finance flows, developing a pathway towards reduced greenhouse gas emissions.

The Paris Agreement is considered weak, as it allows the parties (i.e., the member states themselves) to voluntarily report planned emissions, so-called nationally determined con-

70 Thunberg, "EESC Event."

71 While such preambles may appear as a mandatory institutional exercise characterizing the genre, their content may nevertheless cause controversy. Doelle reports that "some Parties insisted on having these provisions included in the Paris Agreement while other Parties resisted including them." (Meinhard Doelle, "The Paris Climate Agreement – Assessment of strengths and weaknesses," in *The Paris Agreement on climate change: Analysis and commentary*, eds., Daniel Klein, Maria Pia Carazo, Meinhard Doelle, Jane Bulmer, and Andrew Higham (Oxford, United Kingdom: Oxford University Press, 2017): (Section B, 1), <http://works.bepress.com/meinhard-doelle/1/>)

72 United Nations, *The Paris Agreement* (United Nations Framework Convention on Climate Change (UNFCCC), 2015): <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>.

tributions that are established in the subsequent articles of the agreement and followed up by soft accountability measures.⁷³ Thus far, the reported emission cuts have not been sufficient to reach the common ambition. Additionally, aviation and shipping are omitted from the agreement, weakening the possibility to monitor total global emissions.

When Thunberg refers to the Paris Agreement in her speeches, she accentuates the long-term goal articulated in Article 2.1a together with the principle of equity. From this perspective, she criticizes reported emission cuts as insufficient, for example, in her addresses in April 2019 to the EU Parliament and the members of British Parliament. Moreover, as the mapping of the environmental ethical values in Thunberg's speeches has shown (see the introduction to part 2 of this article), she repeatedly appeals to the environmental ethical values expressed in the preamble of the Paris Agreement—to protect the lives of present and future human beings and of other species—as well as the principle of equity. In this way, the cosmopolitan aspect of the Paris Agreement rather than the intergovernmental aspect is prioritized.

Such an interpretation of the Paris Agreement enables Thunberg, in her speech at the plenary session of COP 24, to insist: "Until you start focusing on what needs to be done rather than what is politically possible, there is no hope". While what needs to be done is a perspective referring to the cosmopolitan claims of the protection of life, what is politically possible may refer to intergovernmental negotiations. Obviously, the cosmopolitan claim is also a political claim, but in Thunberg's speeches, it is the cosmopolitan message of the Paris Agreement, which is accentuated in a political message, not the built-in political weakness distinguishing the agreement as a treaty between sovereign nation states.

That approach has allowed Thunberg, in her iterations of cosmopolitan claims, to stress their legitimization with reference to the United Nations consensus statements, while at the same time employing them as a criterion for critique of the lack of political follow-up. This is also how her speeches may be said to instantiate the method of immanent critique, going back to the early Hegel, expressing the possibility "to criticize a particular philosophical, political or cultural paradigm...in the name of a criterion that such a paradigm contains within itself".⁷⁴ It is this critique which I here conceive of as the utopian element of environmental ethical values because it instantiates an ideology critique (i.e., a critique of the current social order).

73 Karlsson-Vinkhuyzen et al. refer to accountability mechanisms, that function within democratic societies, while "in the realm of Multilateral Environmental Agreements, however, – and the PA [Paris Agreement] is no exception – 'non-compliance mechanisms', where they exist, are 'non-judicial, non-confrontational and consultative.'" They add, "Most states in the PA negotiations carefully avoided the 'a-word' [a – accountability] in discussion of implementation follow-up and monitoring." (Sylvia I. Karlsson-Vinkhuyzen, Maja Groff, Peter A. Tamás, Arthur L. Dahl, Marie Harder, and Graham Hassall, "Entry into force and then? The Paris Agreement and state accountability," *Climate Policy* 18, no. 5 (2018): 593–594. DOI: 10.1080/14693062.2017.1331904).

74 Karin de Boer, "Hegel's Conception of Immanent Critique: Its Sources, Extent and Limit," in *Conceptions of Critique in Modern and Contemporary Philosophy*, eds., Karin de Boer and Ruth Sonderegger (London: Palgrave Macmillan, 2012), 83.

3.1 The appropriation of cosmopolitan claims

Interpreted as cosmopolitan claims accrued to everyone, environmental ethical values may be appealed to by anyone. This possibility is a vital aspect of the school strikes for the climate, and also characterizes Thunberg's speeches as democratic iterations. Benhabib holds that these processes are "encouraging new forms of subjectivity" and "can empower citizens in democracies by creating new vocabularies for claim-making."⁷⁵

As democratic iterations, the school strikes are expressions of a new group—children and youth—entering the public space, appropriating the cosmopolitan claims as their own, and stating that the future is no abstraction, but is populated with the diverse life on earth, including themselves.

Using the authority from this position—belonging to the future generations protected by the United Nations Framework Convention on Climate Change—Thunberg and the other school strikers are holding politicians and business leaders of the world accountable for the lack of action. Exactly at the point where the Paris Agreement is at its weakest, the school strikes for the climate have assumed ownership of cosmopolitan claims to be found in the very same agreement signed by the world nations. The moral authority of the school striking youths is further strengthened by the fact that the history of climate negotiations among the adults is one of broken promises, with continuous growth in the emissions of greenhouse gases since the Climate Change Convention was adopted in 1992.

3.2 Context and narrative: The practice of enlarged thought

The emphasis on the rhetorical situation has illuminated certain aspects of the context of Thunberg's speeches. The exigence that the speeches are responding to is of global reach, determining the global audience. At the same time, the speeches constrain the context, appealing to reports of urgency presented by institutions like the IPCC and to cosmopolitan values endorsed by the United Nations.

The productive establishment of context is, however, also expressed in another way, which may be made visible through Benhabib's concept of enlarged thought and narrativity. As previously presented, according to Benhabib (1992), enlarged thought is designating the practice of moral judgment involving anyone affected by the action in question, which is also strongly connected to Benhabib's political theory of deliberative democracy.⁷⁶

We have seen how the scope has been enlarged by the entrance of the school striking students into the public discourse, insisting on their right to be heard. However, although the identification with the future is significant in her speeches, Thunberg has been careful with not restricting the ethical scope to her own generation of human beings, as her speech at "Civil Society for rEUanissance" clearly states: "Some people say that we are fighting for our future, but that is not true. We are not fighting for our future, we are fighting

⁷⁵ Benhabib, *Dignity in Adversity*, 125–126.

⁷⁶ See Seyla Benhabib, "Toward a Deliberative Model of Democratic Legitimacy," in *Democracy and Difference: Contesting the Boundaries of the Political*, ed., Seyla Benhabib (Princeton, N.J.: Princeton University Press, 1996), 70.

for everyone's future."⁷⁷ This *everyone* even includes other species and the whole biosphere. Beginning with her TED talk in November 2018, Thunberg, has continuously referred to the sixth mass extinction of species and demonstrated an awareness of inequity, clearly stating that the moral burden is not equally distributed. Not everybody is responsible for the crisis; instead, the rich bear responsibility.⁷⁸ In this way, the recontextualizing practice demonstrates how all the environmental ethical values have significance, although the cosmopolitical appropriation primarily regards the protection of future generations.

Narratives are distinguished by a trajectory, potentially including the past, the present, and the future. Thunberg has projected the context into the future, challenging adults to expand the practicing of enlarged thought. In her TED Talk in November 2018, Thunberg provides an example that she has subsequently reiterated:⁷⁹

The year 2078, I will celebrate my 75th birthday. If I have children or grandchildren, maybe they will spend that day with me. Maybe they will ask me about you, the people who were around, back in 2018. Maybe they will ask why you didn't do anything while there still was time to act. What we do or don't do right now will affect my entire life and the lives of my children and grandchildren. What we do or don't do right now, me and my generation can't undo in the future.⁸⁰

This is a call to adults to include her generation in their ethical and political thinking, with an emphasis on a possible future. Demonstrating how her own life is related to the lives of others is the mode of narrative Thunberg has deployed here. But even more significant, considering the conception of narrative that Benhabib borrows from Arendt, is how Thunberg poses a possible judgment from the future generations on the achievements or lack thereof of the present adult generation; the story of our lives is also the narrative told by others. In this way, the position of accountability, commented on earlier, becomes specific and concrete. The web of relationships in this speech is woven both between and within generations.

3.3 A reservation: The responsibility placed on adults

A peculiar aspect of Thunberg's speeches is how she has placed responsibility on the adult world. In the early speech in September at the People's Climate March in Stockholm, she states, "The changes required are enormous and we must all contribute in every part of our daily lives, especially us in the rich countries, where no nation is doing nearly enough.

77 Thunberg, "EESC Event."

78 In this respect, Thunberg's message is confronting the richest nations of the world, including Sweden and the European Union. Regarding the issue of global equity, it should be mentioned that although school strikes for the climate have turned into a worldwide phenomenon, the response has been most considerable in affluent countries.

79 Thunberg, "COP 24, Plenary Session."

80 Thunberg, "TED Talk."

The grownups have failed us.”⁸¹ This appeal to transformation of everyone’s daily lives is clearly reflected in Thunberg’s own choices, most famously her rejection to travel by airplanes. However, in her subsequent speeches the appeal to change individual life styles, has given way to the message that politicians and business leaders must act as if they are in a crisis. They are the ones who are responsible for the current misery, and they must solve it. Thunberg has acknowledged that solutions may be difficult, but still insists that “the main solution however is so simple that a small child can understand it. We have to stop the emissions of greenhouse gases”,⁸² as stated in her message to business leaders in Davos.

By holding the political world accountable, she has turned the relationship between adults and children upside down. However, she has still insisted on her status as a child, placing the responsibility on adults, not presenting specific solutions. She is not quite consistent in this reservation, sometimes suggesting that systemic change might be necessary, that green economic growth is insufficient, or that a culture of competition must yield to cooperation. She has also become more precise in her critique, most specifically in her speech to the members of the British Parliament, which was delivered as an accurate critique of the moderate ambitions for emission cuts.⁸³

However, the general picture is that Thunberg, at least thus far, has shown reluctance with indicating how the demands and requirements may be operationalized in practical politics. This applies to the utopian element pointed at previously as a dimension of the environmental ethical values. This utopian element is expressed in the critique of the current state of affairs, which is consistently applied in Thunberg’s speeches. But it may be expressed in the suggestion of possible alternative worlds, as well. Such a constructive dimension has not been developed by Thunberg. This reluctance may be warranted in the position of accountability related to the Paris Agreement: The young people are not in charge of the current states of affairs, they are an obvious interest group which now has become visible, but their task is to hold the adult world accountable, pointing at the urgent need for action. But the lack of specifications and a political program may nevertheless in the long run be a weakness in the ongoing struggle involving a hegemonic world economy.⁸⁴

81 Thunberg, “People’s Climate March.”

82 Thunberg, “Inside World Economic Forum.”

83 Thunberg, “Members of British Parliament.”

84 The general demand of the school strikes for the climate still is distinct, requiring politicians to take necessary action for reaching the overall aim of emission cuts in the Paris Agreement. It should also be added that there have indeed been made specifications in various national expressions of the schools strikes for climate. In Norway, the school strikers have demanded full stop of further oil prospecting (Åsa Bache, “Thousands participating in school strike for climate May 24”, *Nature and Youth*, May 23, 2019, <https://nu.no/saker/skolestreik/2019/05/tusenvis-vilstreike-skolen-for-klima-24-mai/>), in Australia a similar demand has been no new coal, oil and gas projects (“About us”, *School Strike 4 Climate*, accessed December 5, 2019, <https://www.schoolstrike4climate.com/about>).

4 The school strikes' ambiguous relation to education

In part 2 and 3 of this article, I have analyzed the recontextualizations of environmental ethical values in 10 speeches by Greta Thunberg from September 2018 to April 2019. The study has demonstrated how these values are conceived of as cosmopolitan claims, appropriated in democratic iterations, determining the emergence of democratic citizens. In the rhetorical situation established by the current crisis, the constraints of context have been expressed by Thunberg in her call to immediate action.

4.1 Environmental and sustainability education as a backdrop for the school strikes

What is the significance of this analysis for education? In one respect, a hypothesis could be that the school strikes for the climate are the outcome of well-functioning school systems, following the guidelines of environmental and sustainability education. In these schools, students critically examine unsustainability practices, climate change, and explore how to live well.⁸⁵ They develop a capacity for action competence, possibly expressed in political engagement beyond the school institution.⁸⁶ Additionally, the education provided, accommodating for the integrity of the students, is transformative and participatory with an openness to unprecedented action,⁸⁷ here expressed in the school strikes phenomenon itself. With particular consideration to moral education, the school strikes may reflect diligent studies of environmental ethical values, even regarding their institutional embeddedness in the United Nations sustainability agenda.

As a matter of fact, Thunberg and other school strikers have referred to education in the school as an important source of knowledge about global warming and anthropogenic climate change.⁸⁸ Such student reports may be considered to reflect international priorities granted to sustainability education in the globalizing education policy of UNESCO and followed up nationally on a worldwide basis.⁸⁹ In a key UNESCO document framing the

85 Randall Curren and Ellen Metzger, *Living well now and in the future: Why sustainability matters* (Cambridge, MA: MIT Press, 2017).

86 Finn Mogensen and Karsten Schnack, "The action competence approach and the 'new' discourses of education for sustainable development, competence and quality criteria," *Environmental Education Research* 16, no. 1 (2010): 59–74. DOI: 10.1080/13504620903504032.

87 Bob Jickling and Arjen E. J. Wals, "Globalization and environmental education: looking beyond sustainable Development," *Journal of Curriculum Studies* 40, no. 1 (2008): 1–21. DOI: 10.1080/00220270701684667

88 Hilde Schramm, Greta Thunberg, and Deborah Lipstadt, (Originally Broadcast February 1, 2019) (C. Amanpour and W. Isaacson, Interviewers) [Interview transcript], May 29, 2019, <http://www.pbs.org/wnet/amanpour-and-company/video/february-1-2019-ceo4lu/>; Anuna de Wever and Kyra Gantois, *Vi er klimaet: Et brev til verden [We are the climate: A letter to the world]*. (Oslo, Norway: Spartacus, 2019).

89 The significance of education for the transformation to a sustainable world was accentuated in Agenda 21, a global action plan which was another outcome of the Rio Summit, followed up by subsequent initiatives: United Nations, *Resolution 57/254. United Nations Decade of Education for Sustainable Development*, 2002, https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/57/254&Lang=E; United Nations *Resolution 70/1. Transforming our world: The 2030 Agenda for Sustainable Development* (2015), https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_70_1_E.pdf; United Nations, *Resolution 72/222. Education for sustainable development in the framework of the 2030 Agenda for Sustainable Development* (2017), <https://www.un.org/en/ga/72/resolutions.shtml>.

United Nations Decade of Education for Sustainable Development (2005–2014), the values dimension is particularly addressed, calling for an education policy that is “fundamentally about values, with respect at the centre; respect for others, including those of present and future generations, for difference and diversity, for the environment, for the resources of the planet we inhabit.”⁹⁰

4.2 From students to democratic citizens

However, the hypothesis considered above is weakened by reports on how environmental and sustainability education may individualize and depoliticize the issues at stake.⁹¹ While not dismissing the positive significance of environmental and sustainability education, there are good reasons, when considering the school strikes phenomenon, to reflect on possible obstacles involved, pertinent to the phenomenon of education itself. In Basil Bernstein’s conception of the recontextualization of societal discourses in education settings⁹², he points out how a space for ideology emerges, when discourses are pedagogized. This perspective is even reflected in my own research, as touched upon in the introduction to this article.

Fundamentally, this issue pertains to the function of the student role itself. A student is an institutional role referring to a position in a learning process taking place within the school institution. The preparatory function is obvious, although the immanent value of the learning process should be accentuated, as well.⁹³ However, as the school strikes for the climate demonstrate, children and young people have substantial interests in the political struggle of transforming society’s current unsustainable structures and practices. In this perspective, the school strikes represent a break with the hegemonic practice of institutionalizing children and youths and not including their interests in current political priorities.

Following this perspective, the school strikes may be conceived of as recontextualizations occurring in the opposite direction as the one designated by Bernstein whose emphasis has been on how societal concepts are pedagogized in educational institutions.⁹⁴ The school strikes stand out as expressions of an empowerment in which the students, by virtue of an ethical and political engagement, leave the formal educational setting and are transformed into democratic citizens. The recontextualizations of the environmental ethical values studied in this article are decisive in this transformation. Embedded in the consensus conventions and declarations of the United Nations, they are appealed to as cosmopolitan values, which provide authority to the voices of children and youths expressed in the public space. In this transformation of the students to democratic citizens, the

90 UNESCO, *Framework for the UN DESD*, 4.

91 Huckle and Wals, “The UN decade of education for sustainable development: Business as usual in the end”; Hume and Barry, “Environmental education and education for sustainable development”; Ideland and Malmberg, “Governing eco-certified children through pastoral power.”

92 Bernstein, *Pedagogy, symbolic control and identity*, 32.

93 Joseph Dunne, *Back to the rough ground: practical judgment and the lure of technique*. (Notre Dame, IN: University of Notre Dame Press, 1997).

94 Bernstein, *Pedagogy, symbolic control and identity*.

individual youth becomes part of a social movement, experiencing the power of political mobilization and adding to the possible impact of the school strikes for the climate. What such a conflictual perspective exposes, is how the school strikes, as acts of resistance, may particularly involve the school as a societal institution with a hegemonic function.

Another conspicuous aspect from the perspective of formal education, is the potential for learning within the school strike movement. Conceived of as the transformative practice of *Bildung*, education may take place everywhere. Elaborating on Wolfgang Klafki's critical-constructive didaktik, Stefan Ting Graf points at how authentic *Bildung* does not rely on schools.⁹⁵ The individual may be empowered independently of or in spite of what is going on in the educational institution, due to the hegemonic practices taking place here. While this comment may not take due notice to friction as an integrated aspect of formal educational processes, it certainly addresses the significance of break from the educational institution in the school strikes for the climate.

Below, I continue these reflections on the contentious character of the school strikes, considering how the school strikes may be conceived of as political measures within a social movement. I suggest viewing them as forms of civil resistance paralleled with civil disobedience.

4.3 The school strikes and civil disobedience

The school strikes for the climate are not adequately understood as simple truancy; they stand out as acts of civil resistance⁹⁶ made in public, significant in the establishment of a social movement. The closest analogy might be civil disobedience. This political instrument—employed by Gandhi in India during the struggle for national independence—was central in the civil rights movement in the United States during the 1960s and into the 1970s, which prompted a vibrant debate within political theory. Lately it has been employed by the environmental movement in various countries. The term itself refers to the refusal by a group to obey a specific law, thereby drawing attention to an injustice in society.⁹⁷ In the 1970s civil disobedience gained support from prominent political theorists, like Hannah Arendt and John Rawls. Stears⁹⁸ identifies four characteristics that have been accentuated in the philosophical defense of civil disobedience. First, civil disobedience involves claims of justice rather than narrow self-interest. Second, it refers to the way justice is already understood by the majority of citizens. Third, the justificatory message must be clear and apparent to all. Fourth, civil disobedients must have explored any other democratic instru-

95 Stefan Ting Graf, "Wolfgang Klafkis dannelsesteori. En indføring" [The *Bildung* Theory of Wolfgang Klafki. An Introduction], in *Fylde og form. Wolfgang Klafki i teori og praksis* [Richness and Form. Wolfgang Klafki in Theory and Practice], eds., Stefan Ting Graf and Keld Skovmand (Århus: Forlaget Klim, 2004), 25–58.

96 Daniel P. Ritter, "Civil Resistance," in *The Oxford Handbook of Social Movements*, eds., Donatella Della Port and Mario Diani (Oxford: Oxford University Press, 2014–2015), DOI: 10.1093/oxfordhb/9780199678402.013.49.

97 Marc Stears, "Civil disobedience," in *Encyclopedia of political theory*, ed., Mark Bevir (Thousand Oaks, CA: SAGE Publications, Inc., 2010), 201–203. DOI: <http://dx.doi.org/10.4135/9781412958660.n68>.

98 Stears, "Civil disobedience."

ment before the factual disobedience takes place and must accept any legal punishment that may follow from their disobedience. Both transparency and justice are characteristics recognizable in the school strikes. However, as we have seen above, justice is here expressed as cosmopolitan in scope, and the students have not been subject to legal punishment by the state. Sanctions, if any, belong to the educational system itself.

In her elaborations on civil disobedience, Hannah Arendt⁹⁹ accentuates the significance of a *tacit consent* within society following from the social contract that binds each member to his or her fellow citizens. That consent must be distinguished from the support given to specific laws, but it does involve some kind of fundamental *consensus universalis*. This distinction allows civil disobedience to be seen as a democratic act and not as a violation of democracy. According to Arendt, once a child or youth has grown into an adult, dissent stands out as a possibility. However—and this reveals the challenge raised by the school strikes—what if the youth's interests are not protected by current politics, and it is not time to wait to dissent or resist until the child has become an adult?

Here, then, is the crucial issue expressed by the school strikes for the climate: When the adult world does not take responsibility, children and youths leave the school as a preparatory institution behind in an act of resistance and dissent and simultaneously make a claim on justice. The employment of cosmopolitan values is expressed as measures of critique, crucial for the warranting of this political act. The school strikes demonstrate how the juris-generativity of these values has been restricted by not including the age group that will be most affected by current unsustainable politics in the democratic processes, i.e. the young generation without the right to vote.

On a deeper level, the tacit consent in society may be said to be challenged by the lack of protection of future life on earth. If so, some of the complexities of the current crisis become visible. Ecologically, life on Earth is already harmed and under threat of future harm. Politically, this situation produces uncertainty and weakens the preconditions of democracy that bind each member to fellow citizens. The school strikes may herein be positively conceived of as attempts to restore this tacit consent that is fundamental to democracy. However, this function obviously requires that the students' appeals are heard by adults and followed up on through political action.

5 Final considerations and conclusion

In this article, I have studied how environmental ethical values expressed in United Nations Conventions are recontextualized in the school strikes for the climate. The analyses of the 10 speeches of Greta Thunberg demonstrated that the values persistently are addressed, with continuous reference to the Paris Agreement. The environmental ethical values are pivotal in the establishment of the exigence that the speeches address. They are employed

99 Hannah Arendt, "Civil disobedience," in *Crisis of the republic* (New York, NY: Harcourt Brace Jovanovich, Inc., 1972), 49–102.

to designate what is under threat by current unsustainable practices—present and future life on earth, involving human beings and the more-than-human world, and including equity as a precious concern. Decisive is how *kairos* in the speeches is continuously established by reference to a current crisis. While the context of the speeches is global in scope, reflecting both a global exigence, cosmopolitan claims and an emerging global social movement, the time dimension makes the message distinct and acute. The concern for future generations is brought into the present in the urgent call for action.

The perspectives from Benhabib's critical cosmopolitanism have made visible how mediations are taking place between the environmental ethical values and acts of political resistance, in which the students transcend the school institution and become democratic citizens. Crucial in Thunberg's speeches is how the moral message of the Paris Agreement is accentuated as a political message, not referring to the built-in political weakness distinguishing the agreement as a treaty between sovereign nation states. This approach has allowed Thunberg, in her iterations of the environmental ethical values as cosmopolitan claims, to stress their legitimization with reference to the United Nations consensus statements, while concurrently employing them as a criterion for critique of the lack of political follow-up.

In the speeches of Thunberg the school striking youths embody the environmental ethical values, and particularly the concern for future generations. It is in this strong sense that the values are recontextualized, conceived of as cosmopolitan claims. The central message is that the youths' own existence, protected by the United Nations conventions, is under threat, due to the lack of necessary political action. At the same time, the speeches of Thunberg transcend a limited self-interest, accommodating a concern for equity in the present and the protection of all future life.

The school strikes themselves establish an ambiguous relation to education. On the one hand, they may be seen as the outcome of a well-functioning environmental and sustainability education awaking the students' political awareness of the current crisis and enabling them to take action. On the other hand, the transformative element is not positioned within the context of formal education, but is expressed as a break with the school setting. I have here, with reference to Arendt, paralleled the school strikes for the climate with civil disobedience. The environmental ethical values are appealed to as common values, but the lack of necessary political action threatens the tacit consent that binds the citizens together, putting particularly the life prospects of the young generation under risk. In that respect the climate crisis is also a threat to democracy. Here the school strikes for the climate may be seen as expressions of a disregarded societal group without suffrage who is claiming the right to be heard in matters that are vital to life and existence. In this perspective, the strikes are ways to restore democracy, if followed by political action that protects the interests of the young generation.

Addressing moral education as practiced in school, some suggestions may be formulated on the background of this study. First of all, the school strikes for the climate prompt reflections on the status of the youths in the class room. It is decisive to realize that young

people is a group in society with particular interests in the current political tug of war concerning the transitions to sustainable societies. To acknowledge this status has consequences for how sustainability issues are addressed in educational practices, including the reminder that young people are not a homogenous group—most of them have not been school striking—demanding approaches that open up for plurality, disagreements, and difference. At the same time, the school strikes for the climate, as we have seen, may be said to also problematize the student role in itself, as positioned outside of the political space, calling for further reflection on tensions involved between formal education and democratic empowerment.

Regarding the environmental ethical values studied here, their cosmopolitan character should be accentuated in ways that invite the students to discuss them and appropriate them. In the establishment of such an educational space, the United Nations conventions are of vital importance, as well as the persistent contradiction between proclaimed values and insufficient action. With such a framing the explorations of ethical issues in school concerning the current ecological crisis, climate crisis, and increasing social inequity, necessarily also involves a political dimension.

The school strikes for the climate also prompt reflections on the practicing of moral judgment in moral education. A conspicuous element in Thunberg's speeches is how the youth's own existence is included in what is to be taken care of. The concern is not about promoting narrow self-interests, e.g. maintaining unsustainable consumption patterns, but seems to be a matter of including oneself in the vulnerability that distinguishes all living beings. From this follows the openness for emotional responses, like feelings of fear and despair. The existential dimension should be acknowledged in moral education and included in the corresponding *Bildung* ideal.

There are risks involved in appealing to cosmopolitanism and universal claimed values in education. Sund and Öhman points at how environmental and sustainable issues may be turned "into moral issues of good and evil and thus *moralise the political*." ¹⁰⁰ This is a concern that even applies to the practices of the school striking students. My suggestion here, however, is that the risk is not primarily to consider the environmental and sustainable issues as moral issues, but the reduction of adequate response to sole questions of individual behavior. This is what necessitates mediations between the ethical and political. Decisive in the analysis carried out here, has been how the environmental ethical values in Thunberg's speeches are recontextualized as cosmopolitan claims, appropriated and applied as critical instruments in a political struggle. Furthermore, these instances of democratic iterations are constitutive for a new social movement and seem to be significant in processes of transformative learning, in which the students emerge as democratic citizens.

100 Sund and Öhman, "On the need to repoliticise environmental and sustainability education.", 650, original italics.

Inga Bostad and Dag O. Hessen

Learning and loving of nature in the Anthropocene

How to broaden science with curiosity and passion

Abstract

This article argues that teaching the basic, scientific aspects of nature is not only compatible with a more curiosity and passionate approach, but that in the era of the Anthropocene it is necessary to bridge the gap between this rational approach and a passionate approach to motivate engagement and societal action towards sustainability. Sometimes, these two approaches have been seen as incompatible, but they should rather be seen as complementary. It is thus urgent to explore and explain this two-sidedness that is our greatest challenge today: to facilitate more factual knowledge and information about the complex interactions in nature, while at the same time stimulate wonder, curiosity and care for the nature on which we depend. Clearly, education at all levels should embrace a scientific approach, also promoting curiosity and motivate passion, yet with somewhat different emphasis on these three educational elements at different levels. In this article, we argue that the curiosity and passion components should be more prominent in primary school, at the more advanced levels the scientific approach should be in front, however still supplemented with a strong motivation of curiosity and passion. Following this argument, we also try to show that critical thinking can both inhibit and promote an experience of belonging to nature. Critical thinking, in which we approach nature with rational reasoning, norms and value analyses may distance us from an immediate and more intuitive connection with nature. On the other hand it is precisely in the complex balancing of facts, norms and values that we experience the situatedness of knowledge, and in that gain an understanding of being part of nature.

Key words

Anthropocene, curiosity, deep ecology, rationality, sustainability, teaching

“For a society dependent on innovation and growth, the crucial question is how pedagogy and education may nurture curiosity throughout childhood, and how to avoid checks and pitfalls.”¹

1 Markus Lindholm, “Promoting Curiosity? Possibilities and Pitfalls in Science Education”, *Science & Education* 27, no. 9-10 (2018): 989

Inga Bostad, University of Oslo, Norway
e-mail: inga.bostad@iped.uio.no

Dag O. Hessen, University of Oslo, Norway
e-mail: d.o.hessen@mn.uio.no

Introduction

In this article, we (a philosopher, Bostad and a biologist, Hessen) argue that the notion of a distinction or even incompatibility between fact-based knowledge (in the classroom) on the one hand, and curiosity-driven experiences² of nature on the other, forms a central problem of the philosophy of sustainable education today. Following this argument, we pursue another somewhat obvious tension, *viz.* that between learning objectives and competencies related to critical thinking on the one hand, and, on the other, the learning of facts. We argue that there is a necessary link between the two: to be critical in the sense of questioning dogmas, sorting out arguments, values and norms, as well as articulating different experiences, feelings and emotions, often, though not necessarily, creates learning and understanding. This is found in large swaths of modern eco-philosophical thinking—wonder without knowledge is blind, and knowledge without wonder is devoid of breath. At the same time, it is important to be aware of the difference between intrinsic and instrumental value. While intrinsic value is characterized by the fact that goals and means work together, instrumental value is defined as the value or worth of objects that provide a means to some desirable end, often to human needs and wants. Here, too, we must not choose between either/or. Value-based arguments for nature protection will commonly pull in the same direction as the more instrumental, ecosystem-service oriented arguments.

The pedagogical context

While we believe our perspectives have relevance to the teaching of ecology, evolution and sustainability in general, we will specifically draw upon Norwegian cases and examples. The Norwegian Education Act is grounded by the “Objective Clause”³ which states that education for all should build on fundamental values, such as respect for human dignity and for nature.⁴ It also states that pupils and apprentices should be able to “think critically and act ethically and with environmental awareness.”⁵ Further, the newly approved Core curriculum⁶ states that schools should, across all disciplines and subjects, contribute to the development of joy of being in nature as well as awareness of how lifestyle impact nature

2 Even though many studies have argued that curiosity is fundamental for learning and knowledge, and as such should be a basic part of scientific development, “ideas on how pedagogy may promote or hamper curiosity are nearly absent.” Lindholm, “Promoting Curiosity?”, 989.

3 Opplæringsloven, § 1-1, Formålet med opplæringen, [The Norwegian Education Act, the objective clause], https://lovdata.no/dokument/NL/lov/1998-07-17-61/KAPITTEL_1#KAPITTEL_1. English translation, Ministry of Education, *Core curriculum – values and principles for primary and secondary education*, accessed December 18, 2019, 5, <https://www.regjeringen.no/contentassets/53d21ea2bc3a4202b86b83cfe82da93e/core-curriculum.pdf>

4 “Education and training shall be based on fundamental values in Christian and humanist heritage and traditions, such as respect for human dignity and nature» («Opplæringa skal byggje på grunnleggjande verdier i kristen og humanistisk arv og tradisjon, slik som respekt for menneskeverdet og naturen (...).” *The Education Act*, § 1-1.

5 “Elevane og lærlingane skal lære å tenkje kritisk og handle etisk og miljøbevisst”. *Education Act*, § 1-1.

6 The *Core Curriculum* is based on the values and principles of primary and secondary education (the values as expressed in § 1-1 of *The Education Act*). It was approved September 1, 2017, to be implemented in 2020.

and the climate (§ 1.5),⁷ as “human beings are part of nature and are responsible for taking good care of it.”⁸

What does “belonging to nature” mean today and how can children and young people be inspired to experience this? Further, which basic dilemmas and challenges arise between the requirement for rational and critical thinking on the one side, and the feeling of belonging and coexisting in nature on the other? Clearly, a mechanistic, rational, empirical and science-based teaching should not be replaced by an emotion-based education. An awareness of our dependency on and relatedness to nature should augment these other approaches. Again, ecosystem services⁹ in its broadest sense do indeed encompass both the emotional side (human wellbeing) as well as the monetary side, while at the same time being a knowledge-based approach.

While having an anthropocentric approach, the main rationale for this concept is the demand of a sustainable use of nature, which is beneficial to “nature itself” (the bio-centric perspective). A growing human population still depends on a dwindling natural environment, with expanding global footprints, climate change, and species loss and ecosystem degradation as we enter the Anthropocene.¹⁰ For most of human history, we have been few and vulnerable to a mighty nature, but this has now reversed and humans have apparently gained “control” over nature, which has prompted a kind of hubris. This changed balance between nature and humanity also calls for a new type of awareness around the human-nature relationship, consisting of an acceptance not just concerning whether humans still depend on nature, but also that we must perceive ourselves as part of nature. The human-nature dichotomy, which is rooted both in the desire to gain control over nature (and in religiosity, i.e. seeking distance from the “immoral” beasts of nature), has provided an instrumental view of nature that persists.

In the following, we will scrutinize the ideal of rational, empirical and science-based education, and discuss how deep ecology may promote curiosity and wonder, as well as a sense of relatedness with and responsibility toward nature that can inspire normative actions. Further, we claim that critical thinking informed by deep ecology is needed to reveal the hidden curriculum of sustainable education, and thus function as a bridge-building position of promoting value reflection and a curiosity-driven learning about and loving of nature.

7 “Skolen skal bidra til at elevene utvikler naturglede, respekt for naturen og klima- og miljøbevissthet.”

8 “Mennesket er en del av naturen og har ansvar for å forvalte den på en forsvarlig måte”.

9 The Economics of Ecosystems and Biodiversity, *Ecosystem Services*, accessed December 18, 2019, <http://www.teeb-web.org/resources/ecosystem-services/>

10 The Anthropocene is not yet the official name of the human epoch, but it was coined as such by Paul Crutzen to raise awareness of the human footprint and is widely accepted. See Paul J. Crutzen, “Geology of Mankind”. *Nature*, 415 (2002): 23, doi: <http://dx.doi.org/10.1038/>; and Henrik Hovland Svensen, Thomas Hylland Eriksen, and Dag O. Hessen, “En røff guide til Antropocen”. *Nytt Norsk Tidsskrift*, 33, no. 1–2, (2016): 71-83.

Value-based ecology

When the Norwegian philosopher Arne Næss launched the concept of “deep ecology” in the early 1970s,¹¹ it was an implicit counterpart to the scholarly and scientific ecology that was conceived as “shallow” by some, because it was entirely rational, mechanistic and devoid of normative statements and feelings. Indeed, ecology was—and still is—based on facts, calculations, mass-balance, equations, statistics and models. It may be descriptive, but it searches for general phenomena, predictability, numerical approaches and above all the “laws and rules of nature.” Ecology strives to be perceived as a hard science, and not as ecology in the sense of environmental protection or “green values.”¹² There is nothing wrong with this—in fact, ecology *should* be strictly scientific and rational. As such, it is not in conflict with bringing values onto the scene regarding the management and protection of nature (indeed, ecologists themselves generally are quite “green”, with implicit values in common with deep ecology). Hence, it is plausible to see “deep ecology” as a complementary approach to the strictly science-based ecology, and not as a competing branch of ecology.¹³

These two conceptions also have different goals and approaches. Scholarly ecology is aimed towards a *description* and *understanding* of nature without normative ambitions. Deep ecology (or derivatives thereof) is motivated by biocentric values, albeit also by human wellbeing, and is rooted in normative arguments. Interestingly, despite most ecologists’ conception that the understanding and management of nature should be based on facts and rationality, the basic concepts of deep ecology (e.g. the intrinsic value of nature and the biocentric or philosophical arguments of the moral status of all species), has had significant impact on nature management and conservation. Many nature protection acts, conventions, red lists for threatened species and so on, are explicitly based on biocentric arguments. Despite these layers of legal and normative protection, populations, species, habitats and ecosystems are still declining at an alarming pace,¹⁴ causing a growing desire to implement also the *rights* of nature.¹⁵ Neither human rights nor nature’s rights can be directly grounded in scientific arguments, but we can make inferences about what justice requires based on what we know to be necessary for the flourishing of humans and nature.¹⁶ The steadily decline of nature and biodiversity, as recently highlighted in the UN Intergov-

11 See Arne Næss, «The Shallow and the Deep, Long-Range Ecology Movement: A Summary», *Inquiry* 16, no. 1-4 (1973): 95-100, DOI: 10.1080/00201747308601682.

12 Peder Anker, “Science as Vacation: A history of Ecology in Norway”. *History of Science* 45, no. 4 (2007): 455–479, <https://doi.org/10.1177/007327530704500404>.

13 Nina Witoszek and Andrew Brennan (eds.), *Philosophical Dialogues: Arne Naess and the Progress of Philosophy* (Lanham, Maryland: Rowman & Littlefield Publishers, 1999).

14 WWF – State of the Planet, 2017 and 2018.

15 Guillaume Chapron, Yaffa Epstein and José Vicente López-Bao, “A rights revolution for nature”. *Science*, 363, no. 6434 (July, 2019):1392-1393. <http://science.sciencemag.org/content/363/6434/1392.full>.

16 Martha Nussbaum, *Frontiers of Justice: Disability, Nationality, Species Membership* (New York: Harvard University Press, 2006).

environmental Science-Policy Platform on Biodiversity and Ecosystem services¹⁷ strongly calls for the whole suite of arguments, from the strictly scientific to the more value based.

It is also worth to point to the fact that there are wide cultural differences in this context, both within and among nations and regions, with regard to values and feelings towards all species and nature.¹⁸ Biophilia, i.e. "love of nature" implies that we possess an innate tendency to seek connections with nature and other forms of life, and this may be evolutionary imprinted but also culturally modified. It has been argued that some kind of "biophilia" is an innate property of humans,¹⁹ but still the "deep ecology"-oriented passion for nature is by and large an urban, Western, modern phenomenon, and arguments for not only the moral but also juridical rights of nature would no doubt be perceived as rather far-fetched in many societies. To explore the cultural diversity in relations to nature is far beyond the scope of our paper, hence we restrict the discussion to modern, Western education. We also believe this is timely, as the root of unsustainable development seems to be found here, in our part of the world.

Trends and pitfalls of science education

—a short glimpse of the history of science education textbooks

The way in which the natural sciences, broadly speaking, have been presented in primary school textbooks (again based on Norwegian textbooks) has by and large been strictly fact-based and non-normative, with the exception of some post-1970 textbooks in ecology. These have at times been criticized (perhaps rightly so) for presenting a naïve and idealized version of nature as good, harmonic and "in balance", while human activities are represented by polluting industries, black smoke, toxic waste and so on.²⁰ Chemistry may have consequently earned a bad reputation (and biology a correspondingly good reputation), but despite a somewhat biased representation, there is no doubt that this raised awareness among young people about man-made environmental degradation.

In the history of science education, textbooks illustrate the tension between representatives for different interests and ideologies—a tension that, in Norway, is established between primary school teachers' emphasis on pedagogy, socialization and student-centring on the one side, and, on the other, an academic tradition at the universities specializing in rigorous science-based curricula. According to Svein Sjøberg,²¹ this tension dates back to the end of the 19th century, when science-based curriculum is mentioned in the 1869

17 Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem services (IPBES), accessed December 18, 2019, <https://www.ipbes.net>.

18 Kay Milton, *Loving Nature. Towards an Ecology of Emotion* (London: Routledge, 2002).

19 Edward O. Wilson, *Biophilia* (New York: Harvard University Press, 1984).

20 Svein Sjøberg, *Naturfag som allmenndannelse – en kritisk fagdidaktikk* (Oslo: Ad notam Gyldendal, 1998).

21 Svein Sjøberg, «O-fagsyndromet,» in *Sann opplysning? Naturvitenskap i nordiske offentligheter gjennom århundrer*, ed. Merethe Roos and Johan Tønnesson (Oslo: Cappelen Damm, 2017).

“Education Act on Schools in the Countryside” (“*Loven om almueskolen paa landet*”)²² as “description of the soil” and “knowledge of the nature”.

However, even if the academic tradition has been influential, integrated textbooks in the natural sciences since the introduction of a nine-year primary school system (in contrast with many other countries, including other Nordic countries, where the natural sciences are divided into individual subjects),²³ and our Norwegian tradition of outdoor schooling and outdoor life, and an ethical conduct and guardianship towards nature, are an integrated part of our heritage. This is exemplified by the quote from the Norwegian discussion in the early 1900s on teacher education and launching of a program for Educational Colleges “The daily education in the different subjects must find its free path to imagination and reason, out to the forest and the field, to the fjords and the mountains.”²⁴

By and large, however, education in the natural sciences – in biology and ecology included – is predominately aligned didactically as strictly fact-based and devoid of “soft values” and normative discussions. Again, reductionism (in the strictly scientific sense) and empiricism is a premise for novel insights and the success of the natural sciences. However, even though the ideals of science persist, they are presented in meaningful and value-related contexts (whether as “text in context” or “text in culture”)²⁵. But, one may ask, as we do here, if there is a current demand for supporting approaches related to ecology, climate, and the loss of diversity. We point at three pitfalls of this trend: 1) a loss of the trans –and multidisciplinary view in the shadow of scientific diversification, which maintains the division between the “two cultures”^{26, 27}; 2) a lack of critical thinking that promotes curiosity and wonder; and 3) a “denial of nature”²⁸ and a missed opportunity to bring urgent attention to environmental risks, which should be a main goal of natural science education today.²⁹ While the first two issues are most directly related to the educational aspect, we will argue that the third forms a very important premise for the other two. Hence, we briefly discuss the first two issues before turning to a more in-depth discussion of the third.

22 As around 90 % of the Norwegian population were living in the countryside, this act is considered the start of the Norwegian primary school, see Reidar Myhre, *Den norske skoles utvikling: Idé og virkelighet* (Oslo/Gjøvik: Gyldendal Norsk Forlag, 1982), 20 and Liv Kari Bondevik Tønnessen, *Norsk utdanningshistorie* (Bergen: Fagbokforlaget, 2011), 17.

23 Sjøberg, *Naturfag som allmendannelse* and Hessen, “Naturvitenskap – dannelse eller bare utdannelse”, in Bernt Hagtvædt and Gorana Ognjenovic, (eds.) *Dannelse, tenkning, modning, refleksjon* (Oslo: Dreyer, 2011).

24 Torstein Kristivik and Erling Høverstad, *Ein norsk lærarhøgskule. Historisk utsyn og program* (Kristiania: Steenske forlag, 1919), 197. Our translation.

25 Erik Knain, *Scientific literacy for participation. A systemic functional approach to School science discourses* (Rotterdam: Sense Publishers, 2015).

26 Charles Percy Snow, *The two cultures* (Cambridge: Cambridge University Press 1959).

27 It has also been argued that the humanities as well as the social sciences have overlooked or banned the natural sciences and reinforced this split. See Hessen (2011) and Sjøberg (1998).

28 Arne Johan Vetlesen, *The Denial of Nature. Environmental philosophy in the era of global capitalism* (London: Routledge, 2015).

29 Worldwatch Institute, *State of the world* (2018), <http://www.worldwatch.org/bookstore/publication/earthed-rethinking-education-changing-planet-state-world-2017>.

Presentations and practices of natural science education

Reductionism as a key criterion for scientific success is undebatable, despite the widespread criticism that has at times rendered reductionism as almost an abuse, synonymous with “narrowmindedness”. However, among the natural sciences, it is now widely recognized that the pieces also must be puzzled together to understand “how the engine works”.³⁰ For example, the understanding of genetic networks (pleiotropy) and epigenetics, metabolic functions, brain and consciousness, biodiversity and ecosystem processes, and climate change with its drivers and impacts, all demand a broad range of approaches and contributions from multiple disciplines—including outside the natural sciences. Indeed, regarding the latter, insights into climate drivers are based on insights derived from a wide range of natural science disciplines, but there are also societal drivers related to politics, economics, psychology and social norms, and solutions need to be sought among all these disciplines. While this is well understood among researchers who are, to an increasing extent, cooperating in large consortia, the field of education lags behind.

Another problem with most current education practices and their too-“narrow” presentation of the natural sciences is that it often becomes a matter of cramming facts at the expense of reflection, curiosity, critical thinking and a more holistic understanding.³¹ “Reports on science education elaborately assess how preschool children demonstrate cognitive readiness for science, but do not consider or discuss possible long-term mechanisms which could hamper or promote deep curiosity and the persistent joy of learning. (National Research Council 2007, 2012).³² One of the classic misunderstandings in pedagogy, according to Dewey, is the idea that the students only learn something about the particular topic being focused on at a specific time and place,³³ missing everything else that could have been acquired in the situation—i.e. the creation of long-lasting attitudes, sympathies and antipathies—which, all in all, are likely just as important as it creates a deeper understanding. These attitudes, emotions and beliefs could be far more relevant and basic for the future. Indeed, as Dewey states, “What avails is to win prescribed amounts of information about geography and history, to win ability to read and write, if in the process the individual loses his own soul: loses his appreciation of things worthwhile, of the values of which these things are relative”.³⁴ While Dewey focuses on the apparently implicit socialization taking place during education as “collateral learning,” Östman refers to the “content included in subsidiary forms of learning as companion meaning, which either follows on automatically when teaching knowledge content, or becomes collateral learning when one

30 Marc H.V. Van Regenmortel, “Reductionism and complexity in molecular biology” *EMBO Reports* 5, no. 11 (Nov. 2004): 1016-1020, doi: 10.1038/sj.embor.7400284.

31 Andrew Gilbert, and Christie C. Byers, “Wonder as a tool to engage preservice elementary teachers in science learning and teaching”. *Science Education* 101, no. 6 (Nov. 2017): 907–928. <https://doi.org/10.1002/sce.21300>.

32 Lindholm, “Promoting Curiosity”, 989.

33 John Dewey, *Experience and Education* (1938) <https://archive.org/details/ExperienceAndEducation/page/n19>.

34 Dewey, *Experience and Education*, 20.

learns scientific meanings. Such meanings can, for example, be concerned with the nature of knowledge and people's relations to nature."³⁵

As such, it is striking, first of all in the Norwegian policy documents and curriculum reforms—as Kvamme pointed out in his analyses of the values of environmental ethics³⁶—that values are primarily thematized in the humanities, but without the inclusion of conceptions of and experiences with nature. Nature, on the other hand, is treated in the natural sciences, but without an emphasis on values and norms.

Rachel Carson frames this in the following statement: "It is more important to pave the way for the child to want to know, than to put him on a diet of facts he is not ready to assimilate."³⁷ However, the conclusion should not be to replace facts with feelings, but rather that facts are always presented in an environment of values, norms, contexts and culture that are to be made visible and reflected upon in a curiosity-driven environment—for the students as well as for the teacher. This relates not only to the way the topic is communicated, keeping Richard Dawkins' much quoted "science is the poetry of reality" in mind, but also to the fact that learning always happens in a certain place at a certain time and that implicit norms and values are present.

One telling example³⁸ may illustrate how narrowly presented facts can fail to introduce the real importance of a topic: on what happened to be the final day of the climate meeting COP 21 in Paris in 2015, a student organization in Norway proposed to remove photosynthesis from the school curriculum. After all, what was the purpose of this boring equation with its hard-to-remember stoichiometry? This initiative may very well illustrate how education has failed to put photosynthesis into perspective: It is not only a wonderful reaction in and of itself, it is also by far the most important reaction (and equation) on Earth. The consumption of CO₂ by photosynthesis has shaped the climate over billions of years and made this planet habitable for ourselves and other animals that depend on oxygen and organic matter. The balance between photosynthesis and respiration is also crucial for the carbon cycle and the climate. What could be more motivating than contextualizing photosynthesis into this grandeur?

Education for the Anthropocene

This brings us to the third challenge of contemporary science education. Education about nature has increasingly become detached from experiencing the physical nature itself (as

35 Leif Östman, "Education for sustainable development and normativity: a transactional analysis of moral meaning-making and companion meanings in classroom communication", *Environmental Education Research* 16, no. 1 (2010): 75-93, DOI: 10.1080/13504620903504057.

36 Ole Andreas Kvamme, "Blurring the image of the other? The Recontextualization of Environmental Ethical Values in Norwegian Education Policy Documents" in *Challenging Life: Existential Questions as a Resource for Education*, ed. Jari Ristiniemi, Geir Skeie and Karin Sporre (Münster: Waxmann, 2018), 359–382.

37 Rachel Carson, *The sense of wonder* (New York: Harper & Row, 1956).

38 <https://www.aftenposten.no/meninger/debatt/i/Mjq5/elevorganisasjonen-vil-ha-fotosyntesen-ut-av-laereplanen-hva-er-da-skolen-til-for-kathleen-rani-hagen>.

has our everyday life). To some extent the situation reflects a long-lasting aim of civilization: to gain control over nature, and to create distance from the “immoral” beasts of nature. It also reflects the fact that an increasing proportion of humans live in cities and urban areas, is separated from nature. A dichotomy between nature and humans is generating a “detachment” that is one of the causes of the continuing overuse and degradation of nature and biodiversity³⁹) as well as the climate crisis⁴⁰ (IPCC 2019 a, b; <https://www.ipcc.ch/srcl/> and <https://www.ipcc.ch/sr15/>). As argued by Lenton and Latour (2019),⁴¹ a new level of self-awareness is here urgently demanded.

One aspect of the human detachment to nature is that our ultimate dependency on “ecosystem services” has become a purely theoretical insight, often imbued with economic incentives (i.e. “the value of nature” in its narrowest sense). A second aspect is the abstraction of nature—nature may seem irrelevant to the daily life of most humans because it is so distant, both literally and figuratively. This abstraction may, in some cases, also lead to a romanticized vision of nature as “good” or harmonic, in balance, and so on. Clearly, nature may be *felt* as good, but this is quite different from actually *being* good. Partly, both the strictly instrumental view of nature and the overly romantic view are based on the dichotomy between nature and humans—we, too, are part of nature, as “culture-nature”, yet have remarkable skills reflecting both the good and the bad, i.e. we have the capacity of normative reflections.

The reason that these considerations are not a matter only of academic interest is that nature must be deeply involved in education in the Anthropocene, first of all to motivate engagement and societal action towards sustainability. As the human footprint on Earth has expanded dramatically, in terms of climate change, decreased populations and species loss, education at all levels, from kindergartens to universities, has become pivotal not only for knowledge on how humans, climate and ecosystems interact, but also to bring about change in values and behaviour. The changes should definitely build on scientific insights, but also on curiosity and passion or involvement in nature. Here is the major point raised by the Worldwatch Institute’s *Earth Ed’ State of the World Report*, with its telling subtitle, “Rethinking Education on a Changing Planet.”⁴² A number of contributions in this volume discuss topics such as “social and emotional learning for a challenging century” and “bringing the classroom back to life,” but the overarching message is that of a critical thinking encompassing what is often labelled “*bildung*”⁴³ (for lack of an appropriate English term). By

39 I.e. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), *Global Assessment Report on Biodiversity and Ecosystem Services. Summary for Policymakers* (2019), <https://ipbes.net/global-assessment-report-biodiversity-ecosystem-services>.

40 Intergovernmental Panel on Climate Change (IPCC), *Special Report on Climate Change and Land* (2019), <https://www.ipcc.ch/sr15/>. IPCC, *Special Report on Global Warming of 1.5 °C* (2019), <https://www.ipcc.ch/sr15/>.

41 Timothy M. Lenton and Bruno Latour “Gaia 2.0. Could humans add some level of self-awareness to Earth’s self-regulation?”, *Science* 361, no. 6407: 1066 (2018), science.org, 14.9.2018.

42 Worldwatch Institute, *Earth Ed. Rethinking Education on a Changing Planet* (Washington D.C.: Island Press, 2017).

43 For a more thorough description of the concept of “*bildung*”, see for instance Gert J.J. Biesta, *The beautiful risk of education* (Paradigm publishers, 2014), Bostad, Å se seg spørrende omkring. *Introduksjon til en ny pedagogisk*

using the term “bildung” in this context, we want to highlight that education is not only a process where children are introduced to the shared body of knowledge, history and culture, but also a tradition aiming at individual and collective autonomy.⁴⁴

There is always the “paradox of pedagogy”, in which there is no direct path from knowledge to understanding and changing attitudes, and beyond that, no one can force anyone to agree upon any values. This is also emphasized well by Foros and Vetlesen,⁴⁵ who argue for a stronger implementation of environmental concern in the upbringing of children, addressing the responsibility both of parents and of educational systems.

With the current, unsustainable trajectory of the world, it should be widely accepted that the time is ripe for a new and broader approach to teaching ecology and natural sciences in general (as well as economics). Let us again underline the basic premise of our argument: that the broader approach does not imply a replacement of “classical” natural sciences with a value-oriented ecology, but rather that textbooks and teaching in the natural sciences should simultaneously be upgraded with facts related to climate change, species decline and ecosystem degradation while encompassing more curiosity-driven value-based discussions, ethical dilemmas, discursive strategies, and concern for nature.

The teaching and pedagogical encouraging of different ways of having a more passionate relation to nature should naturally belong to the very basic levels of upbringing, i.e. kindergarten and primary schools. Higher levels of education could then tap into these passions, since they are not only important to maintain but are necessary “bridges” to learning about and loving nature. That we, citizens of the Western world, are still geared for continuous economic growth despite knowing that this ultimately cause destruction of nature, reflects a “denial of Nature”, as argued by Vetlesen⁴⁶, and this urges a reinstatement of nature’s value outside of its exploitative usefulness for human ends.

Without being emotionally touched by or having experienced a kind of belonging and closeness to nature, there is no strong motivation for change or action. Love, caring, and developing feelings of gratitude towards something, are after all the best motivators for protecting it. Metaphorically, both halves of the brain need to be engaged—not just the left, rational hemisphere (and indeed, in reality, both halves are engaged in a suite of decisions). Both in Vetlesen’s *The Denial of Nature* and his somewhat misanthropic follow-up book *How Shall We Answer Our Children?*,⁴⁷ the ultimate answer, or recipe, is to encourage children and young people to develop passion and responsibility for nature, and a sense of belonging by going *into* nature, rather than *out in* nature.

filosofi (Oslo: Gyldendal, 2017), Anders Burman and Per Sundgren, (eds.) *Svenska bildningstraditioner* (Stockholm: Daidalos, 2012), Bernt Hagtvedt and Gorana Ognjenovic, (eds.) *Dannelse, tenkning, modning, refleksjon* (Oslo: Dreyer, 2011), Rune Slagstad, Ove Korsgaard and Lars Løvlie, *Dannelsens forvandlinger* (Oslo: Pax forlag, 2003) and Ingrid Straume, *Danningens filosofihistorie* (Oslo: Gyldendal forlag, 2013).

44 Bostad, Å se seg spørrende omkring, Ingerid Straume, “Paideia” in *Cornelius Castoriadis: Key Concepts*, ed. Suzi Adams (London: Bloomsbury, 2013), 143-153.

45 Per Bjørn Foros and Arne Johan Vetlesen, *Angsten for oppdragelse* (Oslo: Universitetsforlaget, 2015).

46 Vetlesen, *The Denial of Nature*.

47 Arne Johan Vetlesen and Rasmus Willig, *Hva skal vi svare våre barn?* (Oslo: Dreyer, 2018).

Belonging to nature—a privileged position?

One could argue that the followers of deep ecology and ecophilosophy have failed in their appealing to more sustainable actions, among policymakers as well as in schools and society as a whole. Criticism has been raised that the focus on a genuine experience of nature, being part of and enjoying its rich existence by way of simple means, as argued for instance by Arne Næss who argues for the reinstatement of nature's value beyond its exploitative usefulness for human ends,⁴⁸ has failed to encourage and motivate sustainable actions and behaviour. From this perspective, norms are seen as a reflex or an immediate effect of a very special form of experiencing nature: that is, a direct and free access to and experiencing of belonging to nature, or the somewhat privileged position of “searching for a closeness to an enigmatic and exhaustive nature.”⁴⁹

Now, even if this is a criticism Næss himself already predicted in 1973, arguing that as the

“focus on environmental ontology has been a recipe for disaster rather than a success for deep ecology and its supporters, I suggest that a proper environmental position should be based on critical thinking and moral principles rather than on ontological assumptions about human experiences of the world.”⁵⁰

there is a tension between empirical grounded norms based on experiences of belonging and critical thinking. At the same time, this tension between giving arguments for a position and showing or formulating some basic values and principles illustrates the heart of the appeal to ecophilosophy: intuitively based personal experiences are all too pluralistic and manifold to be generalized into an ontology, but at the same time they form the basis of a moral conviction that motivates actions. Presenting arguments and reflecting critically about the human–nature relationship leads therefore to a wide range of intuitively based announcements that are more or less common, such as “every life-form has a worth of its own, independent of its usefulness for human beings.”⁵¹

Thus, with regard to the position above taken by the followers of deep ecology and their emphasis on belonging to nature it is worth stressing that this may consist of a plurality of experiences that in their diversity establish basis for critical thinking. Deep ecology encourages us to

48 See the 25 guidelines in Per Ingvar Haukeland, *Dyp glede* (Oslo: Flux, 2008).

49 Kjell Madsen, “Den objektive nærhet- om Arne Næss’ tillitsfulle skeptisisme” in *Filosofi på norsk 1*, ed. Inga Bostad (Oslo: Pax, 1997), 106.

50 Arne Næss, “The Shallow and the Deep, Long-Range Ecology Movement: A Summary”, *Inquiry*, 16, no.1-4 (1973): 95-100, DOI: 10.1080/00201747308601682.

51 Arne Næss, “Sustainability! The Integral Approach”, in *Conservation of biodiversity for Sustainable Development*, eds. Odd Terje Sandlund, Kjetil Hindar and Anthony H. D. Brown (Oslo: University of Oslo Press, 1992), 303-310, available in SWAN, vol. 10.

“stop giving reasons when you announce something you personally find *intuitively* obviously true or correct, or something that you cannot imagine yourself giving up except for reasons you have never heard of and cannot see how they could be convincing (...). To stop giving reasons is not the same as being dogmatic or less scientific or deep.”⁵²

Critical thinking is thus understood as broader than simply giving more or less rational arguments for something: critical reflection in this context also implies the ability and competence to identify that which is value-based—i.e. to distinguish between what are values and what are empirical statements and other types of claims, attitudes and views; to separate but also justify norms and values; to not take dogmas for granted; to ask critical questions of others; and to request theories and valued-based arguments. In this sense, critical thinking is not only consistent with having values ending in intuitive claims, it forms the common ground of deep ecology: critical thinking leads to ethical reflections.

The question remains as to whether these intuitively experienced insights are common for human beings, and if we may develop arguments from them and end up with basic values or if they are too diverse. The followers of deep ecology would argue that if children and youth in science education are allowed to experience the joy and wonder of being in (and part of) nature, they will develop shared values regarding their responsibility for nature, as well as the inherent rights and dignity of all species. Thus, as we see it, it is neither necessary nor desired to develop a predetermined methodology for a kind of value-awareness, but rather it is a strength imbedded in critical thinking as such that an open plurality and variety in methodology are encouraged.

The fundamental argument against a mechanistic view of nature, according to the deep ecology of Arne Næss, seems to be the way in which it cuts human reality off from real nature, where the world is an aesthetic and emotional as well as a physical experience.⁵³ Næss himself was inspired by the idea of ataraxia, an individual quest for a state of tranquillity or equilibrium, found as far back as ancient Rome with the philosopher Pyrrho of Elis and the zetetic philosophers. Such an experience or state of mind is often attained in nature—though not always—and it provides a form of enduring and intense joy. In addition, it is associated with a retirement from (or disapproval of) material pressures, achieving a rich life with simple means and working for the rights of all living beings to develop their potential, and even with escaping from relationships with other people for the benefit of non-human nature.⁵⁴

The defence of an “ecological justice” or “environmental justice”—that is, an equal distribution of environmental risks and benefits, including non-human species, may be encouraged by the use of deep ecology in education, according to Kopnina and Gjerris⁵⁵

52 Næss, “Sustainability! The Integral Approach.”

53 Madsen, “Den objektive nærhet”, 106.

54 Inga Bostad, “The Life and Learning of Arne Naess: Scepticism as a Survival Strategy”. *Inquiry* 54, nr.1, (2011): 42-51, Doi: 10.1080/0020174X.2011.542945

55 Helen Kopnina and Mickey Gjerris. “Are Some Animals More Equal than Others? Animal Rights and Deep Ecology in Environmental Education,” *Canadian Journal of Environmental Education*, 20 (2015): 109.

who stated that “deepened understanding and appreciation of the intrinsic value of nature and animals, regardless of one’s theoretical position, can be used in support of building a more sustainable relationship between humans and the rest of the planet. In education, such positions are often associated with ecological justice”.

By contrast, there is also a trend towards a pluralism that opens up for a relativistic and neutral-oriented pedagogy consisting of an anxiety towards taking positions and responsibility for educating the coming generations: that is, a “current notion of pluralism which has led to the reduction and even disappearance of any issues (rights or otherwise) related to the non-human world in environmental education/education for sustainable development.”⁵⁶

To sum up thus far: we are seeing a growing tendency for education in schools to confront two pitfalls—on the one hand, that the emphasis on value-based openness in the classroom creates a neutralization of science-based knowledge and passivates the teachers’ judgment; and on the other hand, how goal compliance (i.e. management by objectives and sub-goals related to specific learning goals) may become obstacles to a holistic critical reflection on our shared responsibility for nature and the environment. In e.g. the Norwegian school subject syllabi the competence goals with an emphasis on outcomes, form the basis for assessment in the various subjects. Our concern is that the everyday life of the student is consistently marked by the double standard of acquiring the skills of critical thinking on the one hand while at the same time experiencing him/herself more or less intuitively as part of nature. As we have argued in this article; critical thinking can both inhibit and promote an experience of belonging to nature: Critical thinking in which we approach nature with rational reasoning and ethical reflection may on the one hand distance us from an immediate, passionate and more intuitive connection with nature. On the other hand it is precisely in the complex balancing of facts, norms and values that we may experience the situatedness of knowledge, and in that gain an understanding of precisely human cohesion with the nature of which it is part.

A hidden curriculum of unsustainable life—growth ideology and alienation

“The dominant stream of education for sustainable development literature emphasizes an instrumental view of nature that supports the current unsustainable development”⁵⁷, is Kopnina and Gjerris’ claim. Others would argue that, even if the ecopedagogy movement that grew out of the Rio Earth Summit in 1992—influenced first and foremost by Freire’s philosophy—has resulted in international forums on ecopedagogy as well as key docu-

56 Kopnina and Gjerris, “Are Some Animals More Equal than Others?”, 119.

57 Kopnina and Gjerris, “Are Some Animals More Equal than Others?”, 118.

ments like the Ecopedagogy Charter⁵⁸, the challenge remains. Indeed, “the field of critical pedagogy has tended to remain historically silent on environmental matters”⁵⁹ and “critical pedagogical theory may not only be insufficient to fully grasp planetary ecocrises in all its complexity, but could also unconsciously reproduce unsustainable harms in its struggle for human freedom and equity.”⁶⁰ According to Kahn, a northern ecopedagogy is surrounded by a “larger hidden curriculum of unsustainable life.”⁶¹

The question that follows would then be: How enclosed are we today in a market and growth ideology, and is this ideal of growth not just a social bounty, something that characterizes politics and institutions, but also something embodied in every human being as a way of thinking? Since ideas often are rooted in experience, it is difficult to arrive at something utopian that is also realistic. Even the IPCC base their models, trajectories, predictions—and warnings—on degrees of change (literally) within the current economic system of production, demands and markets.

Foucault’s concept of “biopower” is relevant here: that is, a way of controlling and regulating human bodies through “an explosion of numerous and diverse techniques for achieving the subjugations of bodies and the control of populations.”⁶² These expectations of social order and social practices seem to regulate human behaviour, be it for better or worse, as, according to Foucault, biopolitics is the political rationality needed in a society: “biopolitics is deployed to manage populations; for example, to ensure a healthy workforce”.⁶³ Today the question could be framed as this; how determined are we by the new “sustainability power” and how open to fundamental power critique and self-reflections is this paradigm?

Concluding remarks—imagining an education for the future?

While writing this article, we experienced not only that we met across the disciplines of biology and philosophy of pedagogy, and articulated somewhat different ideals, histories and theories of our disciplines, even though we started from a more or less common grounding in the critical thinking informed by deep ecology, but that one of the most interesting and relevant findings of the article was the process itself. Having to explain and argue for common norms of objectivity, we became increasingly aware of the demanding aims of gaining ecological knowledge and insight and that the very ideal of critical reflection and norms of objectivity ended up as the most profound tool for starting to care for the environment. The way we articulated the relation between knowledge of nature and

58 María de los Ángeles Vilches Norat, Alfonso Fernández Herrería, Francisco Miguel Martínez Rodríguez, Ecopedagogy, “A Movement between Critical Dialogue and Complexity: Proposal for a Categories System” *Journal of Education for Sustainable Development*, 10, nr 1 (2016): 178-195. Doi.org/10.1177/0973408215625552

59 Richard Kahn, *Critical Pedagogy, Ecoliteracy, and Planetary crises* (London: Peter Lang, 2016), 20.

60 Kahn, *Critical Pedagogy*, 20, here referring to C.A. Bowers.

61 Kahn, *Critical Pedagogy*, 20.

62 Michel Foucault, *The History of Sexuality*, Vol. 1: The Will to Knowledge (London: Penguin, 1998).

63 Foucault, “Society Must Be Defended.” *Lectures at the College de France, 1975-1976*. (New York: Picador, 2003), 239–64.

knowledge from *within* nature, was itself the most interesting challenge for defining a position of caring for nature while stimulating curiosity, reasoning and ethical reflection.

As we see it, three challenges still remains, each one of them demonstrates the need for science education in school to clarify and not cover, the intimate relationship between experiences of belonging to nature and knowledge of it.

As discussed in Bostad and Fischer,⁶⁴ the first of these challenges are the *supplement–replacement dilemma* (also called the paradox of *bildung*); How can we contribute to ecological awareness through formal education when it is not possible to completely control classroom outcomes, let alone broader educational ones? The second is the *instrumental–pluralist dilemma*: How can an open pluralism include, and not reduce, basic ecological information while encouraging debate and reflection? And lastly, the *short versus long-term dilemma*; How can we accommodate holistic, reflexive approaches to education within existing curricula based on separate, discrete subject areas and the educational system? These dilemmas will most certainly continue to exist, but they may be bridged or overcome partly by accepting a wider definition of critical thinking, informed by some of the basic norms and methodology of deep ecology.

Clearly education at all levels should embrace a basic, scientific approach, as well as promoting curiosity and motivate passion, yet with somewhat different emphasis on these three educational elements at different levels. The curiosity and passion components are important in primary school, which at the university levels the scientific approach should be in front, yet still supplemented with a strong motivation of curiosity and passion.

The increased interest in ecological pedagogy and environmental education today⁶⁵ gives hope—hope that the words of Marcuse will be recognized as a description of the past, when he writes that “education is a cultural activity, and that in Western history such culture has systematically defined itself against nature in both a hierarchically dominating and repressive manner.”⁶⁶ Even greater hope lies in the fact that the younger generations, with the Swedish Greta Thunberg as a role model, will be forced to strengthen their engagement in environmental issues, and engage in the political struggle. As Thunberg herself frames it, “it was my teacher in school who opened my eyes to the climate crisis.”⁶⁷

64 Inga Bostad and Aled Dilwyn Fisher, “Curriculum and social change in education for a sustainable future? Ecophilosophy, critical inquiry and moral dilemmas”, in *Human rights in language and STEM education: science, technology, engineering and mathematics*, ed. Zehlia Babaci-Wilhite (Sense Publishers, 2016), 71–90.

65 Helen Koppina, “Education for Sustainable Development (ESD): The turn Away from “Environment” in “Environmental Education”?”, *Environmental Education Research* 18, no. 5 (2012): 699–717. DOI: 10.1080/13504622.2012.658028, Bostad and Fisher, “Curriculum and social change in education for a sustainable future”.

66 Kahn, *Critical Pedagogy*, 138.

67 Jonathan Watts, “Greta Thunberg, schoolgirl climate change warrior: ‘Some people can let things go. I can’t,’” *The Guardian*, March 11, 2019, <https://www.theguardian.com/world/2019/mar/11/greta-thunberg-schoolgirl-climate-change-warrior-some-people-can-let-things-go-i-cant>.

Helen Kopnina

Critical pedagogy

Business students learning from A Story of the Earth Liberation Front

Abstract

While environmentalism is often associated with different non-governmental organizations, agencies, movements, institutions, and grassroots groups, one of the least understood types of environmentalism is so-called radical activism. This article will argue that the label of radicalism or even terrorism attached to some forms of environmental activism precludes learning about the causes of environmental crises. Based on the work of Paulo Freire in critical pedagogy and ecopedagogy, this article supports the position that learning about social and political framing of "radicalism" as well as the issues that drive this "radical" action help the development of critical thinking and ethical judgment in students. Ecopedagogy dictates that despite the idea of being broadly shared, plural and democratic, the concept of *paideia*, an ancient Greek idea of universal education, has led to a tradition of normative anthropocentric thought. By analyzing student reflection essays on the film *If a Tree Falls: A Story of the Earth Liberation Front*, this article draws lessons in ecological citizenship and critical thinking.

Keywords

critical pedagogy; ecological citizenship; ecopedagogy; environmentalism; sustainability

Introduction

Global environmentalism has many manifestations and appears in many guises. Manuel Castells discussed environmentalism as, despite differences, collectively, a movement of resistance to global capital and the hegemony of economic interests.¹ The environmental movement can be summarized as a fight to reorganize the economy-driven logic of modern industrial society.² Individuals and groups that take direct action against environmentally damaging practices can be demonized by the media, which serves as a mouthpiece of hegemonic government or corporate power keen to protect its interests.³ Consider some examples.

1 M. Castells, *The Power of Identity*, (Oxford: Blackwell, 1997), 112-13.

2 Op.cit.

3 R. Kahn, *Critical Pedagogy, Ecopedagogy, and Planetary Crisis: The Ecopedagogy Movement* (New York: Peter Lang, 2010).

Helen Kopnina, Hague University of Applied Sciences, The Netherlands
e-mail: h.kopnina@hhs.nl

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In Western Europe “governing with the greens was never easy”, as The Economist’s article⁴ reflected on the death of the French environmental activist Remi Fraisse, killed while protesting the building of the dam that threatened biodiversity. Between October 2018 and the time of writing this article, a group called Extinction Rebellion in London and other European capitals drew attention to the government’s and citizens’ contribution to climate change and extinction. Some protestors were arrested.⁵

The East European countries rarely publish statistics on detainees arrested for environmental defense, with symbolic protests expressed through art. For example, in the Russian film *Ne strelayte v belyh lebedey* (*Don’t Shoot the White Swans*) Egor, a gamekeeper, dies defending the swans against the poachers. In a non-fiction world, there are reports of suppression and arrests of Russian activists that protest against the government or corporate neglect of the environment.⁶ During the 2018 climate top (COP 24) in Poland, environmental activists were refused entry or arrested.⁷

A more violent fate awaited environmental activists outside of Western countries.⁸ Between the nineteen-nineties and the present, hundreds of environmental activists were murdered in South and Central America.⁹ In Africa, environmental activism became better recognized since the widely publicized case of Ken Saro-Wiwa and others, executed for protesting against oil companies.¹⁰ In many African countries, local officials often prohibit grassroots protests.¹¹ Poachers or illegal loggers have killed many park rangers.¹²

4 The Economist, “The dam bursts” <https://www.economist.com/europe/2014/11/08/the-dam-bursts> 2014:27

5 D. Gayle, “Shami Chakrabarti warns police over Extinction Rebellion prosecutions”, *The Guardian*. 25. Maj 2019, <https://www.theguardian.com/uk-news/2019/may/25/shami-chakrabarti-warns-police-over-extinction-rebellion-prosecutions>

6 V. Lobanov, “Leading Environmentalists Violently Attacked in Russia”, 2018, <https://www.hrw.org/news/2018/01/12/leading-environmentalists-violently-attacked-russia>

7 Amnesty International, “Poland: arrests and refusal of entry to environmentalists during the cop24 climate talks”, 2018, <https://www.amnesty.org/en/documents/eur37/9550/2018/en/>

8 R. Guha, *Environmentalism: Global History*, (New York: Longman, 2000); H. Kopnina, “Revisiting the Lorax complex: Deep ecology and biophilia in cross-cultural perspective”, *Environmental Sociology* 43 nr. 4 (2015): 315-324.

9 J. Watts, “Berta Cáceres, Honduran human rights and environmental activist, murdered”, 2016, <https://www.theguardian.com/world/2016/mar/03/honduras-bertha-caceres-murder-environment-activist-human-rights>; R. Cox, “New data reveals 197 land and environmental defenders murdered in 2017”. Global Witness blog, 2018, <https://www.globalwitness.org/en/blog/new-data-reveals-197-land-and-environmental-defenders-murdered-2017/>

10 R. Nixon, “Pipe dreams: Ken Saro-Wiwa, environmental justice, and micro-minority rights.”, *Black Renaissance* 1, no. 1 (1996): 39

11 B. Baletti, T. Johnson & W. Wolford, “‘Late mobilization’ transnational peasant networks and grassroots organizing in Brazil and South Africa”, *Journal of Agrarian Change*, 8 (2008): 290–314; W. Wolford, *This Land is Ours Now: Social Mobilization and the Meanings of Land in Brazil* (Durham and London: Duke University Press, 2010)

12 J. Burke, “Six Virunga park rangers killed in DRC wildlife sanctuary”, *The Guardian*, 2018. <https://www.theguardian.com/weather/2018/apr/09/six-virunga-park-rangers-killed-in-drc-wildlife-sanctuary>; Global Conservation, “Over one thousand park rangers die in 10 years”, 2018, <http://globalconservation.org/news/over-one-thousand-park-rangers-die-10-years-protecting-our-parks/>

The years 2015 and 2016 have been the deadliest for environmental activists.¹³ According to Global Witness¹⁴, an NGO that works to break the links between natural resource exploitation, conflict, poverty, corruption, and human rights abuses, in 2016, 200 killings across 24 countries were documented, compared to 185 across 16 in 2015. Almost 40% of those murdered were indigenous people in developing countries.¹⁵ In Asia, the environmentalists have paid an equally high toll, with many killed in East Asia,¹⁶ China, India, and Cambodia.¹⁷ In Turkey, peaceful protests to protect the trees in Gezi Park in Istanbul resulted in an escalation of police violence.¹⁸

In the meantime, in the United States, the intensity of protest movements varies from the peaceful sit-in of the Occupy movement¹⁹ to the Native American protests against mining, manufacturing, and capitalism.²⁰ More recently, the policy of institutionalized anti-environmentalism has reached new heights under President Donald Trump's regime (e.g. Gibbens).²¹

These examples of environmentalism vary in motivation, the intensity of protest, and the severity of punishment.²² However, while environmentalism has many manifestations, one of the least understood types of environmentalism in education is associated with "radical" activism. The "radical" groups are labeled so in their society, by the governments or media precisely because they reach the deepest in terms of social critique, addressing entrenched anthropocentrism.²³ The origins of "radicalism" differ from local land-rights

13 G. Holmes, "Environmental activist murders set a record as 2015 became the deadliest year." *The Guardian*, 2016. <https://www.theguardian.com/environment/2016/jun/20/environmental-activist-murders-global-witness-report>; B. Kyte, "Defenders of the Earth. Global Witness", 2017, <https://www.globalwitness.org/en/campaigns/environmental-activists/defenders-earth/>

14 Kyte, "Defenders of the earth".

15 *Op. cit*

16 R. Blet, "Five Asian environmental activists killed for defending the land and natural resources against exploitation", *South China Morning Post* 2018, <https://www.scmp.com/lifestyle/article/2156958/five-egregious-deaths-asian-environmental-activists-killed-defending-land>.

17 Kyte, "Defenders of the earth"

18 BBC, "Turkey protests: 'It's a fight for freedom'", 2013, <https://www.bbc.com/news/world-europe-22753761>

19 S. Van Gelder (red.), *This Changes Everything: Occupy Wall Street and the 99% Movement* (San Francisco: Berrett-Koehler Publishers, 2011).

20 B. Clark, "The Indigenous Environmental Movement in the United States: Transcending Borders in Struggles Against Mining, Manufacturing, and the Capitalist State", *Organization & Environment* 15, no. 4 (2002): 410-442.

21 S. Gibbens, "15 ways the Trump administration has changed environmental policies", *National Geographic*, 2019, <https://www.nationalgeographic.com/environment/2019/02/15-ways-trump-administration-impacted-environment/>.

22 B.R.Taylor, *Ecological Resistance Movements: The global emergence of radical and popular environmentalism* (SUNY Press 1995); J. Mercier, *Downstream and upstream ecologists. The people, organizations, and ideas behind the movement* (Westport (Connecticut): Praeger, 1997); J.S. Dryzek, *The Politics of the Earth: Environmental Discourses. Second Edition* (Oxford: Oxford University Press, 2005); R. Gottlieb, "Preface", "Introduction to the Revised Edition" in *Forcing the Spring: The Transformation of the American Environmental Movement. Revised and Updated Edition* (Washington D.C.: Island Press, 2005), xiii-40, 389-414.

23 Taylor, *Ecological Resistance*; W. Berry, 1999. In distrust of movements. *The Land Report* 65, 1999: 3-7; Kahn, *Critical Pedagogy*.

protests and anti-logging campaigns²⁴, which can be said to be ‘pragmatic’ or activist’, to more philosophically- inspired environmental movements based on the land ethics²⁵, deep ecology and ecocentrism²⁶, animal rights and welfare movements.²⁷ The radical environmentalism²⁸ is associated with groups like the Earth First!²⁹ Earth Liberation Front (ELF), and Animal Liberation Front (ALF)³⁰. The latter two organizations have been active in the nineteen-nineties were declared America’s number one terrorist threat.³¹ The ELF is an underground organization that “uses direct action in the form of economic sabotage to stop the exploitation and destruction of the natural environment”.³² Groups like the ELF carried out property damage attacks to draw attention to environmental damage caused by corporations and governments that allowed for this.³³

This article will discuss the application of critical pedagogy and ecopedagogy to the Bachelors-level students at The Hague University of Applied Sciences in The Netherlands. In 2017, the students were asked to reflect on the film *If a Tree Falls: A Story of the Earth Liberation Front* as part of their Business Ethics and Sustainability course. The film, directed by Marshall Curry and Sam Cullman, was released in 2011 and nominated for The Academy Award for Documentary Feature. This film about “radical” environmentalism was shown to expose students to deep ecology, ecocentrism³⁴, and other types of environmental ethics. The documentary tells the story of the ELF’s formation, activities (including arson and pro-

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- 24 Collinson, H. 1996. Green Guerrillas: environmental conflicts and initiatives in Latin America and the Caribbean (Latin America Bureau, Ltd., 1996); C. Mallory, Ecofeminism and Forest Defense in Cascadia: Gender, Theory and Radical Activism. *Capitalism Nature Socialism* 17, no. 1 (2006): 32-49; T.L. Lewis, “Environmental Movements in the Global South” in *Twenty Lessons in Environmental Sociology*, ed. K. Gould and T. Lewis, (New York: Oxford University Press, 2009): 244-54; M. Youkee, “Indigenous Chileans defend their land against loggers with radical tactics”, *The Guardian*, 2018, <https://www.theguardian.com/world/2018/jun/14/chile-mapuche-indigenous-arson-radical-environmental-protest>.
- 25 A. Leopold, *A Sand County almanac and sketches here and there* (New York, NY: Oxford University Press, 1949).
- 26 A. Naess, “The shallow and the deep: long-range ecology movement. A summary”, *Inquiry* 16, 1973: 95–99.
- 27 P. Singer, *Animal Liberation: A New Ethics for Our Treatment of Animals*, (New York: New York Review/Random House, 1975); T. Regan, T. *The Case for Animal Rights* (Routledge: London, 1984).
- 28 F. Zelko, “Challenging Modernity: The Origins of Postwar Environmental Protest in the United States” in *Shades of Green: Environmental Activism Around the Globe*, ed. Christof Mauch, Nathan Stoltzfus og Douglas Weiner (Lanham, MD: Rowman & Littlefield, 2006): 13-40.
- 29 J. Shantz, “Judi Bari and ‘the feminization of Earth First!’: The Convergence of Class, Gender, and Radical Environmentalism”, *Feminist Review* 70 (2002): 105-122.
- 30 Taylor, *Ecological Resistance*; R. Scarce, *Eco-Warriors: Understanding the Radical Environmental Movement* (Walnut Creek, CA: Left Coast Press, 2006); A. Nocella, “Unmasking the animal liberation front using critical pedagogy: Seeing the ALF for who they really are”, *Journal for Critical Animal Studies* 1 (2007): 1-10; Kahn, *Critical Pedagogy*.
- 31 D.R. Liddick, *Eco-Terrorism: Radical Environmental and Animal Liberation Movements* (Westport, CT: Praeger Publishers, 2006).
- 32 L.J. Pickering, *The Earth Liberation Front: 1997–2002* (South Wales, NY: Arissa Publications, 2002): 58.
- 33 Taylor, *Ecological Resistance*; D. Bevington & C. Dixon, “Movement-relevant Theory: Rethinking Social Movement Scholarship and Activism”, *Social Movement Studies* 4, nr. 3 (2005): 185-208; Zelko, “Challenging Modernity”; Kahn, *Critical Pedagogy*.
- 34 H. Kopnina, “If a Tree Falls and Everybody Hears the Sound: Teaching deep ecology to business students”, *Journal of Education for Sustainable Development* 9, no. 1 (2015): 101–116; H. Kopnina, “Metaphors of Nature and Development: Reflection on the critical course of sustainable business”, *Environmental Education Research* 22, no. 4 (2015): 571-589.

perty damage to protest environmentally destructive corporate practices), and arrests of its members. The film focuses on Daniel McGowan, of the ELF members, examining the reasons behind his transformation from a “proper” business student to radicalization and arrest. The film directors also conduct interviews with the loggers, the FBI and police officers involved in tracking the activists, as well as with victims of property damage and arson attacks. The ideological presuppositions of both the ELF members, and the critique of the ELF are presented through interviews, revealing deep ecology and ecocentrism sympathies with the former group, and the accent on established rules and compliance to regulations with the latter group.

If a Tree Falls is an ultimate “anti-business” film as the ELF members conducted legal protests as well as acts of “illegal economic sabotage (the most dangerous but successful tactic against global giants such as Proctor & Gamble and ExxonMobil), engaging in tactics ranging from boycotting the GAP to breaking windows of McDonald’s franchises”.³⁵ This article serves as a follow-up on the previous study of the students’ perception of environmentalism.³⁶ It aims to complement scholarship of environmental education with an examination of a case study using critical pedagogy and ecopedagogy, developed by Paulo Freire, a renowned leftist educator who, who bridged the gap between revolutionary politics and education.³⁷ The reason why the film reflection assignment is discussed here is that it helps to develop a case for application of eco-pedagogy or critical pedagogy to move students towards (self)reflection without telling them anything, just exposing them to the film and asking them to individually reflect on it without any discussion. The researcher was interested in gauging the student opinions and perceptions to contemplate better strategies for discussing “ways forward” connected to ethics and sustainability in business education. The aim is both pedagogical and didactic – how to develop consequent courses in such a way that not only individual reflection but a dialogue, reflection, and setting out of a vision for the future” become possible, and theoretical/philosophical in a sense of examining and adding to Richard Kahn’s³⁸ the notion of *paideia* (discussed below).

The section below will briefly discuss the sub-field of environmental education, as recently, however, anti-environmentalism appeared from an unexpected source, namely not from the governments supporting the status quo, nor from corrupt local authorities or (illegal) loggers, but environmental education scholars. Following this will be the discussion of critical pedagogy and ecopedagogy education. While the ecopedagogy is seen as an outgrowth of the theory and practice of critical pedagogy, they are often presented in accord and deployed as synonyms, in contrast with conventional environmental education in as far as both points out that mainstream curriculum failed to engage with more

35 Nocella, “Unmasking”, 3.

36 H. Kopnina, “If a Tree Falls: Business students’ reflections on environmentalism”, *International Journal of Environment and Sustainable Development* 8, nr. 3 (2014): 311-329; Kopnina, “If a Tree Falls and Everybody Hears The Sound”.

37 Nocella, “Unmasking”.

38 Kahn, *Critical Pedagogy*.

radical and disruptive forms of social critique. This is especially true concerning environmental sustainability and ethically, to the treatment of nonhumans.³⁹ By contrast, critical ecopedagogy encourages a relationship with the Earth is founded on knowledge; physical, emotional, intellectual, and spiritual. An argument will be developed that the label of radicalism or even terrorism attached to environmental activism precludes learning about the potentially transformative understanding of the root causes of environmental crises.

Mistrust of environmentalism in education

It has been noted that education, which normally reflects dominant societal norms and morals, has largely shied away from any forms of environmentalism that could be seen as controversial, with a recent turn away from the environment towards more socio-economic issues in education for sustainable development.⁴⁰ Environmental non-governmental organizations (ENGOs), 'activists', 'conservationists', transnational networks or grassroots protest movements are lumped together under the label of 'environmentalists'⁴¹ by some environmental education scholars. Arjan Wals and Bob Jickling have warned against authoritative or normative teaching for sustainability, which in extreme forms they see as a form of 'eco-totalitarianism'.⁴² In reflecting upon the controversy about shooting wolves in Canada's Yukon area, Jickling, who at that time was employed as a local schoolteacher, felt that advocating for the wolf protection would be "neither practically viable nor educationally justifiable".⁴³ Jickling explains this position not by the fact some parents of students in this community were hunters but by the need to stay neutral to teach students democratic and open values and avoid indoctrination. Jickling and Spork have also warned that any education *for* anything – even for sustainability – carries a danger of indoctrination. These scholars have warned that education *for* the environment can also become a universalizing discourse that seeks to marginalize other approaches.⁴⁴

In an article tellingly titled "Between knowing what is right and knowing that it is wrong to tell others what is right", Wals, while acknowledging the urgency of resolving environmental issues, notes a "conviction that it is wrong to persuade, influence or even educate

39 *Op. cit*

40 *Op. cit.*; H. Kopnina, "Education for Sustainable Development (ESD): The turn away from 'environment' in environmental education?", *Environmental Education Research* 18, nr. 5 (2012): 699-717; M. Bonnett, *Environmental Consciousness, Sustainability, and Transcendent Nature. Towards Ecologizing Education* (New York: Routledge, 2020 (forthcoming)).

41 Castells, *The Power Of Identity*; Kopnina, "Revisiting the Lorax Complex".

42 A.E.J. Wals and B. Jickling, "'Sustainability' in higher education: From doublethink and newspeak to critical thinking and meaningful learning", *International Journal of Sustainability in Higher Education* 3, nr. 3 (2002): 225.

43 B. Jickling, "Wolves, Ethics and Education: Looking at Ethics through the Yukon Wolf Conservation and Management Plan" in *A Colloquium on Environment, Ethics, and Education*; Jickling, B., red. (Whitehorse, Canada: Yukon College, 1996): 158–163.

44 B. Jickling & H. Spork, "Education for the Environment: a critique", *Environmental Education Research* 4, nr. 3 (1998): 309-27.

people towards pre- and expert-determined ways of thinking and acting⁴⁵. To pluralize, democratize and ‘balance’ opposing perspectives, scholars proposing plural and open education propose that sustainability-related conflicts should not be dealt with in moral (good vs. bad) or rational (right vs. wrong) terms but as a broader exercise in social learning.⁴⁶ Instead of the supposedly “authoritative” education *for* the environment, some scholars have suggested that educators “should take the complexity and pluralism of environmental ethical issues and the variety of sub-positions... into consideration”.⁴⁷ Breiting has expressed concern with the students being used as “marionettes” of the environmentalists.⁴⁸ Such warnings can be indeed very helpful in opening avenues of further inquiry for those wishing to engage in discourse analysis to deconstruct and, hopefully, as Fien has emphasized, “reconstruct, education for and also in/through, with and about the environment”.⁴⁹ However, as Fien also stressed, such caution can also testify to perhaps ironically, the lack of reflexivity over the scholars’ ideology of education, as discussed in the sections below. As critical pedagogy and eco-pedagogy scholars have argued, the refusal to engage with urgent issues that need radical rethinking may lead to the maintenance of the status quo. The radical educational and political project derived from the work of Paulo Freire⁵⁰ disputes the idea that education *for* the environment should not be prescriptive.

Critical pedagogy

In *Critical Pedagogy, Ec literacy and Planetary Crisis: The Ecopedagogy Movement*, environmental education scholar Richard Kahn reflects:

“[...] more problematic still for educators is the burgeoning rise in social and ecological disasters that are resulting from the mixture of unsustainable economic exploitation of nature and environmentally unsound cultural practices...Such ecological issues, requiring critical knowledge of the dialectical relationship between mainstream lifestyle and the dominant social structure, require a much more radical and more complex form of ec literacy than is presently possessed by the population at large [...]”⁵¹

45 A.E.J. Wals, “Between knowing what is right and knowing that it is wrong to tell others what is right: On relativism, uncertainty, and democracy in environmental and sustainability education”, *Environmental Education Research* 16, no. 1 (2010): 150.

46 *Op. cit.*

47 D.O. Kronlid & J. Öhman, “An environmental ethical conceptual framework for research on sustainability and environmental education”, *Environmental Education Research* 19, no. 1 (2013): 34.

48 S. Breiting, “Issues for environmental education and ESD research development: Looking ahead from WEEC 2007 in Durban”, *Environmental Education Research* 15, no. 2 (2009):199–207.

49 J. Fien, *Teaching and learning for a sustainable future* (Paris: UNESCO, 2010). Available from: <http://www.unesco.org/education/tlsf/>.

50 P. Freire, *Pedagogy Of The Oppressed* (New York: Herder & Herder, 1972).

51 Kahn, *Critical Pedagogy*, 6.

In arguing that environmental education seems “toothless” in addressing the controversial issues having to do with population growth and increase in unsustainable production and consumption, Kahn also points out that conventional curriculum fails to engage with courageous activism that fuels societal protests. The conditions of liberal education in a time of ecological crisis requires not just minor adjustments in the existing curriculum but challenging some basic presuppositions about what are the main aims of education (what do we want to educate students for?), requiring revision of the concepts of freedom and emancipation. Kahn’s discussion of the development of *paideia* (/paɪˈdeɪə/) is revealed to be problematically complicit with a Western legacy of domination based upon race, class, gender, and species. Since its birth in ancient Greece, Kahn explains, *paideia* referred to the rearing and education of the ideal citizens, this educational/political concept of playing a significant role during the history of Western development in helping to formulate the entirety of civic life. In this sense, *paideia* can be thought of as shaping the very definition of humanity and civilization, “moving the idea of education beyond simple military preparation and the tutored construction of aristocratic class consciousness into the domain of civic institutional interaction, where a complex of cultural skills and political literacies could be learned”.⁵² Despite the idea of being broadly shared and democratic, Kahn explains, Athenian *paideia* has “boiled down to an attempt to liberate culture from nature”⁵³ and led to a tradition of anthropocentric thought. In this way, it is interesting to see how the idea of democratic learning, openness or “pluralism” can still occur within the overarching domain of dominant (to the point of being invisible as it becomes and normative) anthropocentric assumptions about the world. By contrast, so-called “radical” groups (or potentially, educators who carry out their philosophy) try to reach beyond normative ethical assumptions. ELF and ALF attempt to “produce a revolutionary society based on critiques of the multiple fronts of systemic oppression”⁵⁴ as they move toward creating “interspecies alliance politics”.⁵⁵ Kahn argues that presently education fails to integrate such “radical” environmental movement, failing to engage with “a critical dialogue between social and eco-justice”.⁵⁶

The same thought inspired Michael Bonnett’s book *Environmental Consciousness, Sustainability, and Transcendent Nature: Towards Ecologizing Education* (forthcoming 2020). Bonnett argues that education should not be subservient to the largely economy-driven incentives of sustainable development, pleading for a more ecological vision of the world in which students become active citizens and defenders of the planet. This active citizenship requires an understanding of the power of established corporate and govern-

52 *Op. cit.*, 37.

53 *Op. cit.*, 45.

54 C. Rosebraugh, *Burning Rage of a Dying Planet: Speaking for the Earth Liberation Front* (New York: Lantern Press, 2004); Pickering, *The Earth Liberation Front*, quoted in Kahn, *Critical Pedagogy*, 126.

55 S. Best, *Common Natures, Shared Fates: Toward an Interspecies Alliance Politics* (Impact Press 2003), <http://www.impactpress.com/articles/decjan03/interspecies12103.html> quoted in Kahn, *Critical Pedagogy*, 126.

56 *Op. cit.*, 126.

ment hegemonies. Pluralism is still influenced by the dominant anthropocentric economic thinking.⁵⁷ As Anthony Nocella expresses it, “industries and the state have strong institutional and monetary biases” against justice for the environment.⁵⁸ In contrast to conventional education, critical pedagogy is a “radical education method and process for liberation”. Rather than being “marionettes of the environmentalists”,⁵⁹ without critical awareness, the students are more likely to be the marionettes of established economic interests.

“What better approach to fight and unveil the complex and interwoven lies of the global capitalist machine than one that fights for the oppressed, adopts a critical methodology, and promotes education as a non-violent form of radical social change.

In examining Freire’s seminal book, *Pedagogy of the Oppressed* (1997), one can understand the importance of striving for an engaging educational experience in the classroom or even learning about the revolutionary/liberation groups, societies, and collectives.”⁶⁰

Critical ecopedagogy raises several questions about education for sustainability, as well as ethical aspects of the treatment of environment and nonhumans such as animals. Critical Animal Pedagogy, for example, is predicated on the challenge of the examination and eradication of speciesist (discriminating against nonhuman species) pedagogies.⁶¹ Grubbs and Loadenthal note that academics who challenge the oppressive anthropocentric pedagogies are mapped within a spectrum of activists or even terrorists rather than “good scholars”, while, they argue, their challenge addresses the most hegemonic and oppressive power – that of government and corporate elites interested in maintaining the status quo at the cost of environment and nonhumans. As opposed to cautious anti-authoritarian, or anti-indoctrination approach, critical pedagogy addresses the urgency of environmental predicament. Wals and Jickling, despite their reluctance to resort to instrumentalism in teaching, also note unequal power between the “environment” itself and its human defenders and those in power.

Pragmatically and didactically, ecopedagogy can include situating local knowledge within the classroom through students’ exposure to social activism and action compe-

57 Kopnina, “Education”; H. Kopnina, “Circular economy and Cradle to Cradle in educational practice”, *Journal of Integrative Environmental Sciences* 15, nr. 1 (2018): 123-138; H. Kopnina, “Teaching Sustainable Development Goals in The Netherlands: a critical approach. Special Issue: Environmental and Sustainability Education in the BENELUX region”, *Environmental Education Research* 24, no. 9 (2018): 1268-1283; H. Kopnina, “Green-washing or best case practice? Using a circular economy and Cradle to Cradle case studies in educational practice”, *Journal of Cleaner Production* 219 (2019): 613-623; M.D. Sitka-Sage, H. Kopnina, S. Blenkinsop & L. Piersol, “Rewilding Education in Troubling Times; or, Getting Back to the Wrong Post-Nature”, *Visions for Sustainability* 8 (2017): 1-19.

58 Nocella, “Unmasking”, 3-4.

59 Breiting, “Issues”, 202.

60 Nocella, “Unmasking”, 4.

61 J. Grubbs & M. Loadenthal, “From the classroom to the slaughterhouse: Animal liberation by any means necessary”, *Counterpoints* 448 (2014): 179-201.

tences, helping to bridge the gap between academia and society.⁶² The case study below provides an opportunity to reflect on how students can be exposed to some social protest actions, and what lessons can be learned from it.

The case study: student assignments

Methodology

The study has been carried out as part of a required ethics and sustainability course given to business students, as indicated in the Introduction. The course was conducted by the author of this article based on some materials developed since the introduction of sustainability and ethics topics into the curriculum in 2007. There is a significant body of research on sustainability and ethics in higher education (*Environmental Education Research and Journal of Environmental Education* have been publishing on the sustainability curriculum since the nineteen seventies), and the emergence of scholarship on ethics in business education⁶³. However, most of the International Business programs at the universities in The Netherlands use ad hoc materials provided by the lecturers, as a survey of the Dutch programs demonstrates.⁶⁴

The objective of the course Business Ethics and Sustainability examined in this article was to teach students to recognize opportunities for innovation and impact at the intersection of ethics and environmental, economic and social systems. This course was aimed to develop critical thinking, strategic skills for more ethical and sustainable business, addressing the following:

1. The complex relationship between ethics and sustainability (e.g. What is the relationship between ethical issues having to do with, for example, poverty alleviation, human rights, and animal welfare? What are the differences between social, financial and environmental sustainability in business?)
2. Paradoxes of sustainable development and implications for doing 'ethical' and ecologically sustainable business.
3. Analysis of possibilities for absolute (probably impossible) and relative decoupling of resource consumption from economic growth and implications for international business. The final project will specifically focus on achieving (at least relative) decoupling through the circular economy.
4. Examples of radical/alternative visions
5. Ways forward and practice – Cradle to Cradle, circular economy...

62 Y.U. Mustafa, et al., "A Participatory Action Research Study of Nature Education in Nature: Towards Community-based Ecopedagogy", *International Journal of Progressive Education* 6 (2010): 3.

63 D. Gottardello & M.D.M. Pàmies, "Business School Professors' Perception of Ethics in Education in Europe", *Sustainability* 11, nr. 3 (2019): 608.

64 <https://www.educations.com/search/international-business-netherlands/c3984-d1009>

As part of the course, the students were involved in several activities that facilitated social learning,⁶⁵ including an in-class debate on the proposition “Economic growth, can be decoupled from natural resource consumption” and in-class discussions. This course integrated the viewing of and reflection on the film into one of the five assignments, related to point 5 above.

In 2017 there were 298 international business students (majority was Dutch, the rest European, Asian – predominantly Chinese, with roughly equal male/female ratio). The students were asked to write their reflection on the film, discussing both the events and ethical theory that they thought would be relevant for their understanding of the events. The ethical theory presented to students was derived from the book *Business Ethics: Managing corporate citizenship and sustainability in the age of globalization*,⁶⁶ including consequentialism and non-consequentialism, utilitarian, deontological, and virtue theory ethics in application to business and society at large. It is worth reflecting here that the textbook used did not explicitly relate to deep ecology, ecocentrism, or other environmental or animal ethics, however, within the context of critical pedagogy, the book provides significant reflections on deeper questions about the very possibility of conducting “ethical business”.

For anonymity purposes, the seven assignments were randomly selected of 298, no demographic identifying features were used. The seven assignments cited below were selected in the order they were submitted to the electronic drop-boxes. To secure anonymity, the extracts below contain no other identifying demographics (age, gender, nationality) information. The file identifying students is kept separately in a password protected folder by the researcher/lecturer. The extracts from student assignments below contain personal reflections and have maintained most of the original spelling, grammar, and style.

Student assignments

Student 1.

What I mainly learned from this documentary, is that America treats its forest as crops, ready for harvest. And that it is very hard to disagree with that same government, because the moment the public takes peaceful actions against the government, it answers with violence. It made me think about what is needed to have a say in what is happening to our environment? What do I need, being an average man, to raise my voice and let the government know that we need to protect our earth? Do I join protests, and risk being pepper-sprayed in my eyes until I surrender? Do I set a lumbermill on fire? Of course, I won't set a lumbermill on fire, but it makes you think about what is needed to make a difference.

This movie made me think of an ethical concept: Utilitarianism. Even though all the movements of ethics can be quite complicated to explain & put into practice, Utilitaria-

⁶⁵ Wals, “Between knowing”.

⁶⁶ A. Crane & D. Matten, *Business ethics: Managing corporate citizenship and sustainability in the age of globalization* (Oxford: Oxford University Press, 2016)

nism is mostly about how the outcome of our actions will judge how morally justifiable that action was. For instance, in the second world war, bombing Berlin did cause a lot of unnecessary deaths. However, it did make it easier to conquer Berlin and end a long and bloody war. When it comes to if a tree falls, it is important to look at the bigger picture. We do live in a world where mother nature is endangered, and at this speed, the governments of all countries won't make essential moves to stop endangering our nature. In practice, ELF did perform some radical actions, such as putting lumber mills to fire. It would mean a stop of deforestation, and a strong message to the Americans, which could result in putting a stop to massive deforestation. However, in that process, ELF accidentally put fire to an innocent lumbermill. That makes you think: Do the means justify the cause? That's what I didn't like, the innocent lumber mill that was targeted. However, I did like that there was an active voice reaching out to the world, saying "Hey, the government isn't going to listen to us when we are peaceful, so what options do are there?". It makes you think about what it takes to put a stop to the mutilation of mother earth. Because one day, there won't be enough trees on earth, there won't be enough water. It makes you realize that there is an active threat going on, but yet the entire world doesn't seem to realize how active this threat is, and how fast we are destroying the earth. I learned that sometimes when it comes to ethical issues, certain standards and values have to be pushed to reach a goal. Sometimes, when something very large is at stake (such as the earth), certain actions must be taken when no one else dares or is willing to listen. However, it must stay at pushing boundaries. It must not cause damage amongst innocent people, otherwise, it will look a lot like terrorism indeed. When it comes to convincing the rest of the world that serious action must be taken, I think this movie had an impact. However, a small one. I do believe that there is a majority of people that do recognize that serious action must be taken to preserve nature. Unfortunately, it is the big leaders, that need convincing and that need to undertake action. The world is filled with fools (like Donald Trump) that choose to ignore/deny the environmental issues, even though they are the ones that can make a change. And in my eyes, that is much more unethical than a couple of activists burning down a lumber mill that is active in massive deforestation.

Student 2.

What I had to discuss is the title 'terrorist' for several ELF members, because do crimes against property in which no is intended to be killed or injured constitute acts of terrorism? The US law defines; the term "international terrorism" means activities that: involve violent acts or acts dangerous to human life that are a violation of the criminal laws of the United States or any State, or that would be a criminal violation if committed within the jurisdiction of the United States or any State.

But after saying this the law does state that; appear to be intended-- to intimidate or coerce a civilian population. This makes the actions of Mr. McGowan discussable, the actions were there to intimidate certain people but in an inappropriate an illegal way. The actions were not only there to intimidate but also to warn people that the attacked companies

were damaging the environment. The activities involve acts that were dangerous to human life but were planned so they couldn't harm anyone... and thus could be a non-terroristic activity. Eventually, the lawyer team of Mr. McGowan fought against the title as a terrorist but the US Law Court found McGowan guilty and [...] put him in a special highly secure prison for terrorists [...] I think he deserved a normal prison, he fought for nature, eventually stepped out of ELF because he thought some actions were too extreme. He earned prison times because these kinds of actions are unacceptable but a terrorist of the USA seems un-logical to me because he did it out of love for nature. A case of Meta-ethics.

Student 3.

The film also objectively demonstrated the authority attitude and their action. Here comes the heated argument about what criteria the legal system used to define is a terrorist? Do crimes destroy properties in such a carefully planned out way to make sure no one is killed or injured should be put as terrorist attract? Daniel McGowan was arrested in 2005 and sentenced to seven years at the federal penitentiary in Marion, Ill. The sentence came with a "terrorism enhancement" provision that allows a judge to apply a harsher standard if the crime fits the traditional concept of "terrorism".⁶⁷

Through my research, I found out ELF's ideology which they believe the only logical response is to remove the profit motive from killing the Earth an inhabitant. All actions were designed to maximize economic damage against entities profiting from environmental destruction.⁶⁸ This makes me associate the case with the famous event in American history, which was the Boston Tea Party at some level. Demonstrators fought against the law was called the Tea Act, they destroyed the entire ship of tea, which was sent from the East India Company and threw chests of tea into Boston Harbor. They were also used the extreme way which was destroying the entities who benefit and show no care to others. However, the crisis had such significant influence and it became a starting point of the American Revolution. Americans don't call themselves terrorists nowadays, and the Boston Tea Party has become such an iconic event that the Tea Party Movement in 2010 was using this name to demonstrate their ideology and spirit. Therefore, does this so-called "terrorism" is only become an action which you are fighting against the current authority.

I think consequentialism theory could justify ELF's ideology at some level. In an extreme form to explain the theory could be implied that if the goal is morally important enough, any method of achieving it is acceptable. At the end of the movie Daniel McGowan said he understands there is not just white and black in this world, there are also grey areas. This makes me think the economic growth and damage of the environment seems never going to be compatible. There are always compromises and sacrifices and grey area. Maybe what we need is some affirmative action that could eliminate the grey area.

67 S. Holden, "Crimes Against Property, as Protests", *New York Times*, 21. Juni, 2011.

68 C.J. Covill, "Greenpeace, Earth First! and The Earth Liberation Front: The Progression of the Radical Environmental Movement in America", 2008, Digital Commons.

Student 4.

What I liked the most about this documentary is that it didn't try to teach you how you should behave and how you could take action to improve the environment. It raises awareness about the situation we're in with the whole world, and it shows that it's very difficult to achieve and change something in battles that involve large companies that damage the environment. Secondly, it showed very well that going too far will lead to a situation where you might have to go to prison. And how the government and police are dealing with situations like this. Lastly, it shows [...] that the police is willing to do everything to create order through the use of violence.

Both sides believe that they were ethically correct because they think they serve the right cause. I do believe that the actions of E.L.F. were going too far at a certain point. But Daniel McGowan also claims that. In my opinion, he is the biggest winner, even though he has to go to prison. This because he was able to increase the awareness that had to be raised, he took action, and he was able that things were going too far. Whereas the government just thinks they're superior and they did the best thing ever, as well as the way they let the police just do whatever they want. I would highly recommend this documentary to everyone I know.

On the one hand, the environmentalists have a belief and vision. And at a certain moment, they decide to take serious action against lumber companies as well as multiple slaughterhouses. These environmentalists knew very well what they were doing. They wanted things to change and especially they wanted the environment to improve. The actions they took were very organized and only targeted at companies to raise awareness or to hurt them in such a way that this would lead to improvements regarding the way they'll treat the environment in the future. On the other hand, you have the government that believes that these environmentalists are bad people, and even call them terrorists. They damage business and their actions would lead to a situation where people are not feeling safe anymore because they think they'll be the next target. The only people who do look at consequences in this documentary are the environmentalists. In the first place, they only care about the planet and try to improve the current situation. This is so hard that they have to take these aggressive actions towards companies. However as Daniel mentions in the film, is that their actions were only focussed on property and estate. Not a single person was killed with their actions. So I believe that even though the government has a point with the fact that people are not allowed to do whatever they want. It goes too far treating these people as terrorists and locking them away for the rest of their lives.

Student 5.

This film captured the perspective of both sides which gives more validity to it. From showing how brutally the police force approached the protesters with pepper spray, beatings, manipulation, etc, at the beginning of ELF's existence, to the admission of the wrongful burning of property due to the members of the ELF receiving wrongful information. This film paints the situation as less black and white, but more shades of grey.

The director properly portrayed the characters and the events that occurred. It appears that the director wished to display the complexities that go into environmental activism and where the limits might be drawn. This all puts ethical issues and morality into perspective for me since we do have to think of who is more radical and how easy it is for individuals to become more radical when they feel oppressed. This film eloquently conveys an objective account of the ethical issues involved in this story. Additionally, requiring that the viewer examine their personal ethical and moral ideology when confronted with information from both sides.

The ethical issues faced in this film are exploitation of the environment, abuse of power by the government, police force and corporations, and environmental ethical issues such as biocentrism, conservation, the value of nature, the land ethic, obligations to future generations, and sustainable development.⁶⁹ Ethical theories that motivate the context of this film are consequentialist, given that the ELF members went against social morality to achieve what they considered to be a just cause.

Student 6.

There were several moral arguments. For starters, during the gross part of the documentary, I was in favor of Daniel and the ELF group. I didn't think that the punishment was in its place, because they didn't hurt people. I did agree with the fact that they should be punished, but not as hard as murderers or other criminals.

This view changed at the end of the movie. At 1:13:00, another moral argument occurred. The people who were attacked felt in danger, they didn't know that the ELF was not targeting them but their buildings to send a message. This changed my view of the movie and put me in favor of the judged call.

A beautiful example of the moral argument I was dealing with occurred at 1:19:30. The attorney said that at first, he thought they were very unlikable persons, but after digging into the case and getting to know these persons better, he asked himself: "Why are they doing these things?". This is precisely what the director wanted to get across, all the insights of the story and it told from both ways. Besides the fact that it was a thrilling story that had me from the beginning to the end, the open way of telling the story was also the thing I liked the most about the documentary. The documentary didn't choose a side, it let the audience pick a side for itself without influencing them too much.

I think this movie displays the ethical issues perfectly and it is an effective instrument to inform the broader public about the ethical issues involved in this documentary. I learned to not judge people too soon because you never know their story.

When looking at the ethical theory behind this documentary and applying that to the choices of the key players, one interesting thing stands out; Consequentialism. This ethical theory says that an act is only moral or ethical if it results in a good conclusion. During the

69 H. Kopnina & J. Blewitt, *Sustainable Business: Key issues* (New York: Routledge, 2014)

beginning of the documentary, the motives of ELF were based on, in their eyes, morally right and justifiable reasons. They were convinced that to save the environment, measures like these were right. Consequentialism is often described by the proverb; The end justifies the means. In this case, the end was to save the environment and the means were ‘terror’ attacks.

Student 7.

I believe that the moral of the story is to exploit corporations that in the eyes of the world (media) are focusing on good causes while offline they are taking advantage of our natural resources. Also, the film suggests that to get the attention of the corporations and explaining to them that what they are doing is wrong, isn't as effective as people think. This must do with the fact that most of these corporations understand how their operations are affecting the world. On the contrary, some of these corporations such as Mining and Fishing companies are researching ways to keep their private operations off the book.

In my opinion, Daniel and his group didn't do what was right but what was needed. Because in the same way, the media portrays their actions “illegal”, the media should portray the misconduct of the corporations illegal as well. But this isn't the case and therefore I believe that to fight fire with fire you need to bring fire as well. Meaning that for Daniel to receive the attention from the government and its law officials, Daniel needed to exploit the corporations in a way that will attract the media and this had a negative consequence for the group.

The first story the director shows already proves what kind of networking there is between corporations and law enforcement. Around 10 minutes and 54 seconds of the film, the director switches interviewee and interviews Tim Lewis which is an activist and filmmaker. Now Tim Lewis tells a true story from 1999 in Western Oregon. He mentioned that he didn't understand at first why they were sending Arsons to the neighborhoods. For the viewers to understand the incidents, he tells a story about another documentary called “Pick Axe” that focuses on the “hippy-type” protesting from 1995 versus “monkeywrenching”. Monkeywrenching is a term used to describe all the traps and actions the activists used against logging corporations to boycott the logging. Tim Lewis specifically introduced a very Important person in the film, Jake Ferguson, who is one of the first activists that took part in misconduct against law enforcement. This had to do with the fact that the corporation took advantage of the Forest Service and bought the land (Pick Axe – 1995) and therefore forced (arrested the ones that didn't want to leave in less than 5 minutes) the activist to leave the property immediately. This showed the activists that having a good cause isn't only going to get you far in the world we live in. This also showed that people will do everything they can to protect their business and/or clients. This in my opinion already shows what kind of people/business you can find in the business world and sometimes you need to play hard to stay relevant. That's exactly what Jake Ferguson did and took matters into his own hands. Together with other members of his group, they went and lit a Ranger Station (Oakridge) on fire. This incident became one of the first severe action against log-

ging companies. This incident served as a message to the companies to try and stop the logging. This also inspired a lot of young activists to support the arsons and the actions the group was taking. But some of the environmentalists disagree with these actions and argued that in democracy, public protesting is the best way to bring change.

Roderick M. Hills argues that in authoritarian regimes, “the Street” is a substitute for elections... Compared to environmental protests, public protest is very effective since the corporations can’t go against human rights. Also, public protest not only gives the public opinion, but it also shows the number of participants that could be gathered to fight a specific cause. In this documentary, the director uses past incidents to show that the situation hasn’t changed even though the media portray so. This injustice is what the protesters are fighting for because the distribution of power and the decision-making process goes through the corporations. Thus, I believe that protesting always shows the power of people regardless of what they are protesting for. Therefore, in this case, some of the environmentalists and activists went a bit too far within reason, because the corporations still take advantage of our natural resources.

Analysis

The student assignments testify to the complexity of issues concerning ethics and sustainability. The students’ assignments demonstrate the understanding of the ethical complexity of the motivation behind one particular protest movement. While students’ understanding is embedded in concrete time and place, the wider moral implications of labels such as “radicalism”, and the power of the state are questioned in the sample of assignments. A few students have noted that the American government uses the monopoly on violence indisputable ways, with student 1 noting “the moment the public takes peaceful actions against the government, it answers with violence”. Student 2 thought that McGowan deserves to go to a regular, not high security, prison. The government was also seen as a self-justifying impudent agent by student 4: “the government just thinks they’re superior and they did the best thing ever, as well as the way they let the police just do whatever they want”. Student 4 also noted, “the police are willing to do everything to create order through the use of violence”. Most students thought that the American government has misused the monopoly on violence. None of the students reported being aware of the global threats to environmentalists, not just in America, as discussed in the Introduction.

The question of individual responsibility has been raised by student 1: “what is needed to have a say in what is happening to our environment?”. The same student reflected on personal learning: “I learned that sometimes when it comes to ethical issues, certain standards and values have to be pushed to reach a goal”. Student 6 reflected: “I learned to not judge people too soon”.

As far as ethical theories are concerned, student 1 reflected on utilitarianism: “mostly about how the outcome of our actions will judge how morally justifiable that action was”. Utilitarianism was also used in a different meaning –that of instrumentalism - with student

1 noting the utilitarian use of nature by the American government treating “forest as crops, ready for harvest”.

One of the key questions the students asked was: “Do the means justify the cause?” Some students have noticed that environmental damage; love of nature, and care about sustainable future motivated the activists. As student 2 reflected, intention does matter as “the actions were not only there to intimidate but also to warn people that the attacked companies were damaging the environment”. The same considered what constitutes the act of terrorism in American law and reflected that the label of a terrorist “seems un-logical to me because he did it out of love for nature”. It is significant in terms of ethical relativity to note how motivation (“love”) is seen as a partial justification for the action. Student 7 has reflected that “to get the attention of the corporations and explaining to them that what they are doing is wrong, isn’t as effective as people think” – thus ELF actions could be seen as utilitarian in a sense of being more effective.

Student 6 has evoked consequentialism, defined as “ethical theory says that an act is only moral or ethical if it results in a good conclusion”. Student 2 used the term “meta-ethics” to explain why McGowan “clearly earned prison times because these kinds of actions are unacceptable” but disagreed with the label of terrorist. Realizing that ethics is relative, student 3 wrote: “There are always compromises and sacrifices and grey area”. Similarly, student 5 wrote, the “situation described in the film is less black and white, but more shades of grey”.

The students noticed a thorny issue of ethics and legality, as well as imbalance in power in assigning what is “right” or “legal”. Student 7 reflected that while the media portrays the ELF’s actions as “illegal”, they “should portray the misconduct of the corporations illegal as well”. According to student 7, there is also a difference between what is ‘right’ (from the government point of view) and what is necessary (“Daniel and his group didn’t do what was right but what was needed”).

Student 3 reflected on learning about the paradoxes of today’s reality, with the current government and media focused on economic growth “as a good thing”, while “the economic growth and damage of the environment seem never going to be compatible”. This has important connotations in the context of global environmental protests outlined at the beginning of this article. Many “radical” activists perhaps being labeled so precisely because of their opposition to the hegemonic assumption that economic growth – even if it results in such “side effects” as logging, pollution, or climate change – is “good”. Student 7 also reflected that it is not just the government and police but corporations that hold the reins as “the distribution of power and the decision-making process goes through the corporations”. Student 7 also wondered whether in modern democracies we should accept the non-radical means of achieving change, noting, “some of the environmentalists disagree with these actions and argued that in democracy, public protesting is the best way to bring change”.

Discussion: lessons learned

So, what lessons can be learned from critical pedagogy about radical activism? In the words of Nocella:

“It cannot be stressed enough that the Green Scare is being led not only by law enforcement agencies such as the FBI but ultimately by corporations who are fearful of what these activists will convey to the public about their destruction... The Earth and animal liberationists are not going after people or the government, but rather they are going after the new super-power, the global capitalist market... It is here that the FBI are mere street-line bureaucrats carrying out the job assigned to them by the U.S. Congress and their corporate paymasters.”⁷⁰

Noting that “industries and the state have strong institutional and monetary biases” against justice for the environment animals, Nocella is fearful “that no amount of debate or education is likely to change”.⁷¹ Yet, looking at the assignments above, it is hopeful to see that business (!) students from this random sample seem to get the point. The case study of student assignments provides an opportunity to both reflect on how students were exposed to radical environmentalism without “indoctrination” as they were asked to watch the documentary without the lecturer’s comments, only having been exposed to general ethical theories. As Nocella recommends, this experience helps the “teacher” to “step out of an authoritarian position, while holding onto a leadership role as a facilitator and facilitate a process of engaging social ideology and experience”.⁷² The critical pedagogy seeks ways for the “teacher” – in this case, the film about radical environmentalists – can help students to develop their critical judgment. The next step in this process is offering students more discussions as well as practical exercises as to how to conduct business – or indeed their own lives – in such a way that some of the issues discussed in their assignments become part of their engaged citizenship. As one student has reflected, “Sometimes, when something very large is at stake (such as the earth), certain actions must be taken when no one else dares or is willing to listen.” Rather than being “indoctrinated” by the generalized group of “environmentalists”, the exercise showed that the students were able to apply critical thinking to their understanding of action or inaction, and broader issues of citizenship freedom, human rights, and legitimacy.

It needs to be acknowledged though that pluralistic approach proposed by Wals, and the conception of education (vs. training), proposed by Jickling, is hardly instances of anti-environmentalism. These scholars do present a much-needed reservation in the teacher engagement, with a more neutral or impartial stance calling for the manifold of perspectives among the students. In his earlier article, “Why I don’t want my children to be

70 Nocella, “Unmasking”, 3.

71 *Op. cit.*

72 *Op. cit.*, 4.

educated for sustainable development”, Jickling helpfully warned educators not to blindly address what is seen as normatively “good”.⁷³ When applied to education, a critique of the paradoxes in sustainable development has led scholars such as Jickling to warn educators about education for sustainable development and other hegemonies. In some way(s?), Breiting’s approach is congenial with an ideological-critical perspective and in this way not that far removed from critical pedagogy.⁷⁴ Democratic and plural learning enables educators, researchers, and students to attend to the many languages and discourses.⁷⁵ Pluralism is beneficial to active citizenship and can equip students to become active agents of sustainability, allowing one – including the lecturers - to see the limitations of one’s mindset and to reflect on one’s ideological conditioning.⁷⁶

However, in the plural and open perspectives, there is also a danger that each advocate has his or her vision or “different pedagogical “chapels,” all distinct proponents of the right approach, the best program, the appropriate method.”⁷⁷ In the post-truth world, opinions risk becoming facts, but dominant hegemonies, such as those that support the neoliberal economy, making students “professionals” in a high-demand consumer society, with decision-making still dominated by one species and thus highly anthropocentric,⁷⁸ become masked by plurality – which is limited to one single species.⁷⁹ In education, encapsulated by social norms and wide acceptance, dominant types of ‘pluralism’ might become the tyranny of the majority – especially in cases where “voices” of nonhuman species or trees that Daniel McGowan defends, are represented by too few marginalized or all-too-careful and politically correct teachers. In this sense, Kahn’s discussion of paideia as a normative force that allows for some dissent, but within pre-defined parameters (an e.g. plurality of opinion within an anthropocentric paradigm) continues to exercise its hegemony. Jickling and Spork’s⁸⁰ and Breiting’s⁸¹ the concern with indoctrination seems to under-estimate the power of the dominant education, that marginalizes land ethics,⁸² deep ecology and ecocentrism,⁸³ animal rights and welfare movements⁸⁴ as one of many plural voices – rather than unique human voices that represent billions of nonhuman beings. As Fien has stated,

73 B. Jickling, “Why I don’t want my children to be educated for sustainable development: Sustainable belief”, *The Trumpeter* 11, nr. 3 (1994):2–8.

74 Breiting, “Issues”.

75 T. Berryman & L. Sauv , “Languages and discourses of education, environment, and sustainable development. *International Handbook of Research on Environmental Education*”, ed. Robert B. Stevenson, Michael Brody, Justin Dillon & Arjen E.J. Wals: 133-147.

76 H. Kopnina, “Metaphors”.

77 L. Sauv , “Currents in environmental education: Mapping a complex and evolving pedagogical field”, *Canadian Journal of Environmental Education* 10, no. 1 (2005): 11.

78 Kopnina, “Education”.

79 H. Kopnina & B. Cherniak, “Neoliberalism and Justice in Education for Sustainable Development: A call for inclusive pluralism”, *Environmental Education Research* 22, no. 6 (2016): 827-841.

80 Jickling & Spork, “Education”.

81 Breiting, “Issues”.

82 Leopold, “Sand County almanac”

83 Naess, “The shallow”.

84 Singer, *Animal Liberation*; Regan, *The Case for Animal Rights*.

the “critical pedagogy of education for the environment provides a professionally-ethical way of teaching which contrasts with the allegations of indoctrination in the critique”.⁸⁵

While showing this documentary to students is but the first step to recognition of the non-anthropocentric thinking, support of ecodeмокracy⁸⁶ and inclusive pluralism,⁸⁷ the next step is perhaps much more ‘radical’. In recognition of the human sacrifice for the sake of nonhuman nature, but more significantly, through understanding that “pluralism”, is represented by more than a single species as it happens to be the case with conventional EE/ESD, needs to proportionately include the human “proxies” for *billions* of nonhuman beings that cannot speak our language.⁸⁸ These proxies, and in the case of education, teachers representing nonhuman voices, need to be not just one small group, but a majority. For example, if a 1-hectare forest was scheduled to be felled, at a density of over 50,000 individuals per square meter,⁸⁹ there would be more than 500 billion individuals at risk. Thus, one single human proxy – or lecturer - will be representing all of them. This is a far cry from the type of pluralism currently advocated in environmental education literature. In this sense, a well-known environmental education scholar and practitioner Jickling, who refuses to take a stance for the wolves, and yet speaks of the need for plural perspectives, remains within the domain of the oppressive hegemonic paideia. In this sense, ecocentric or animal rights/welfare supporting teachers will not be recognized as just one of many plural voices, but as central to educating responsible planetary citizens.

Whether just viewing and reflecting on one documentary film will help these students to become responsible planetary citizens, and to critically evaluate their business education, will be only clear after many years. Further, in drawing lessons from the film that makes students think about the label of radicalism or even terrorism attached to some forms environmental activism reveals deeper societal issues having to do with hidden or overt government or corporate hegemonies. While ecopedagogy reveals that the label of “radicalism” precludes public understanding about potentially transformative solutions to environmental crises, which have to do with a critique of who owns the monopoly of power and how publically engaged students can be empowered to be planetary citizens. The film reflection assignments above demonstrate promise in how ecological citizenship and critical thinking can be developed not just in “converted” audiences of environmental activists but among business students.

85 Fien, *Teaching and Learning*, 179.

86 J. Gray and P. Curry, “Ecodeмокracy and Political Representation for Non-human Nature” in Kopnina, H., and Washington, H. (red.), *Conservation: Integrating Social and Ecological Justice* (Dordrecht: Springer, New York, 2019): 155-166.

87 Kopnina & Cherniak, “Neoliberalism”.

88 Gray & Curry, “Ecodeмокracy”.

89 A. Fjellberg, P.H. Nygaard & O.E. Stabbetorp, “Structural changes in Collembola populations following replanting of birch forest with spruce in North Norway” i G. Halldorsson, E.S. Oddsdottir & O Eggertsson (red.), *Proceedings from the AFFORNORD Conference*: 119–25.

Returning to the idea of *paideia*,⁹⁰ in the spirit of lecturer-researcher self-reflection, it needs to be noted that the university context lays constraints that complicate the employment of ecopedagogy within the context of business education. The activist or “radical” environmentalist views are either marginalized or become presented as indoctrinating. In a more open political arena, the recent rise of the Dutch politician Thierry Baudet, who denies climate change, universities and schools were openly accused of indoctrinating students in “leftist” causes such as the environment.⁹¹ Somehow, extreme caution about indoctrination, as discussed by scholars defending pluralism, as well as in this researcher’s educational practice, is often stressed the case of environmentalism, but not in cases when values such as human rights, or rejection of beliefs resulting in sexism, racism, etc. are taught. In fact, drawing from this researcher/ lecturer’s own experience in working with other colleagues involved in the course, the “enlightened” social and economic values (for example, the importance of addressing business responsibility in economic equality) are presented as normative (and in fact, there are many examples when teachers blamed for sexism or racism were fired), while speciesism is seen as less of an issue. The film reflection was one of the rare instances when the topics of corporate compliance and governance, as well as ethical discussion of poverty, inequality, and unequal pay, gave way to exposure to a more ecocentric perspective.

Conclusions

Environmentalism and environmental activism have many different faces, including radicalism and terrorism, depending on how the group or individuals are defined in a specific national or international context. This article has started with the exploration of the types of environmentalists that suffered persecution at the hands of those whose interests they oppose. This article also discussed skepticism in environmental education scholarship about more ‘activist’ forms of teacher’s engagement with the subject of sustainability or ethical issues such as animal rights. As discussed here, the field of critical pedagogy and ecopedagogy recommends engagement with activism and critical examination of what makes some types of “environmentalism” to be labeled as radical. Such examination exposes entrenched political and corporate power hierarchies. It has been argued that exposing students to (radical) activism – in this case, simply asking them to comment on a documentary film about the Earth Liberation Front, helps to develop the students’ critical thinking. As one of the students reflected, “Besides the fact that it was a thrilling story”, a story of the ELF helped to develop students’ ability to understand the challenge of responsible and informed citizenship.

90 Kahn, *Critical Pedagogy*.

91 HOP, “Baudet: ‘We’re being undermined by our universities’”, 2018, <https://www.dub.uu.nl/en/news/baudet-%E2%80%98we%E2%80%99re-being-undermined-our-universities%E2%80%99>

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Per Ingvar Haukeland & Hanne Lund-Kristensen

Den livskraftige barnehagen

En økopedagogisk-filosofisk tilnærming

Abstract

[English Title: *The vital kindergarten: An ecopedagogical-philosophical approach*]

This article discusses the concept "the vital kindergarten" as integrating three overarching themes in the general curriculum that shall give direction to both kindergartens and schools in Norway for the coming years. These themes are sustainable development, democracy and life's mastery, and we find that "vitality" is that aspect that combines them. The overall purpose in the article is to show how this can be done and what roles the pedagogues can play with a special focus on kindergartens. The three themes will be discussed from an ecopedagogical-philosophical approach that combines the ecophilosophy of the Norwegian philosopher Arne Naess, and the ecopedagogy of two Norwegian pedagogues, Bjarne Bjørndal and Sigmund Lieberg. The article revisits these writers, who presented the basis of their main work in the 1970s, in order to move forward with these three themes in mind. Empirically the article draws on: 1) a hermeneutic concept analysis of general curriculum and 2) examples from an action-research project in Klokkergaarden Nature and Culture kindergarten in Drammen, Norway. This second source is incorporated not as an exhaustive discussion of practical consequences, but to exemplify some consequences from the ecopedagogical-philosophical approach and the development of ecopedagogical credo of those working in the kindergarten in ways that enhances the three major themes of a vital kindergarten.

Nøkkelord

Økopedagogikk, økofilosofi, livskraft, økoselv, økodidaktisk relasjonstenkning, økopedagogisk credo, livsmestring, demokrati, bærekraftig utvikling,

INNLEDNING

Det er et pedagogisk problem å skape en aktiv vilje til å prioritere andre verdier og forandre vår levemåte slik at den i høyere grad kan stå i samsvar med økologisk tenkning. Skal en ha muligheter for å oppnå dyptgående og varige holdningsendringer, må den økologiske tenkningen gå inn som en sentral dimensjon i vår allmenndannelse ... det er på høy tid at den pedagogiske forskningen tar opp den utfordring som økologisk tenkning representerer

Per Ingvar Haukeland, Universitetet i Sørøst, Norge.
e-mail: per.i.haukeland@usn.no

Hanne Lund-Kristensen, Universitetet i Sørøst, Norge.
e-mail: hanne.lund-kristensen@usn.no

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på områder som angår skolens [og barnehagens] danneleseverdier, læreplaner og undervisningen.¹

Sitatet over er hentet fra boka *Innføring i Økopedagogikk* skrevet i 1975 av to norske pedagoger, Bjarne Bjørndal og Sigmund Lieberg, som var direkte inspirert av den økologiske og økofilosofiske relasjonstenkningen som utviklet seg tidlig på 1970-tallet i Norge. Prefikset øko kommer fra det greske ordet *oikos*, noe vi oversetter med «hjem», i betydningen av «livet som hjem». Vi vil i artikkelen ta for oss fire sider av «livet som hjem»: natur, samfunn, kultur og selvet. Økokrisen, slik sett, er en «livskrise», ikke bare en natur- og klimakrise, men også en samfunnsmessig, kulturell og eksistensiell krise. Konseptet «den livskraftige barnehagen» er brukt til å fremheve, spesielt i barnehagen, hvordan vi kan imøtekomme økokrisen som livskrise.² Ved å ta et historisk tilbakeblikk, ønsker vi å berede grunnen framover for en økofilosofisk-pedagogisk tilnærming til livskraftige barnehager (og skoler).

Ordet «livskraft» er forstått som en vital kraft som både er en konserverende selvopprettelseskraft og en kreativ selv-utfoldelseskraft. Det handler ikke bare om å overleve, men også om å blomstre! Uttrykket «livskraft» er i slekt med hva den blinde sangeren, Anne Margrethe Lund³, døende og svært syk, kalte for «værekraft»: den kraften som opprettholder livet. Samtidig eksemplifiserte hun hvordan denne «værekraften» også ga henne krefter til å blomstre som seg selv. Livskraften er den bærende kraften i en bærekraftig utvikling.

Den livskraftige barnehagen relateres videre til de tre tverrgående temaene i det nye læreplanverket som skal prege norske barnehager og skoler i årene som kommer: bærekraftig utvikling, demokrati og livsmestring. Disse tre temaene finner vi i den nye *Rammeplanen for barnehager* (R17)⁴ og i *Overordnet del – verdier og prinsipper for grunnopplæringen* (L18)⁵, som slår fast at «De tre tverrfaglige temaene i læreplanverket tar utgangspunkt i aktuelle samfunnsutfordringer som krever engasjement og innsats fra enkeltmennesker og fellesskapet i lokalsamfunnet, nasjonalt og globalt... barn og unge skal forstå hvordan vi gjennom kunnskap og samarbeid kan finne løsninger, og de skal lære om sammenhenger mellom handlinger og konsekvenser».⁶

Artikkelen bygger spesielt på den relasjonelle tenkningen hos Næss og hos Bjørndal og Lieberg, men også på en pragmatisk filosofisk tilnærming etter John Dewey, spesielt dette med å se filosofiens og pedagogikkens nytte i å løse samfunnsproblemer. Vi er derimot kri-

1 Bjarne Bjørndal og Sigmund Lieberg, *Innføring i økopedagogikk. En studiebok for lærere* (Oslo: Aschehoug, 1975), forord.

2 Visjonen om «den livskraftige barnehagen» er utviklet som del av et aksjonsforskningsprosjekt i Klokkergaarden Natur- og kulturbarnehage i Norge; se Årsplan 2018-2019, s. 8. Hentet 27. November 2018 fra <http://klokkergaarden.barnehage.no/Innhold/Side/6695>

3 For mer informasjon om Anne Margrethe Lund, se: <http://www.allgronn.org/varekraft/>

4 Utdanningsdirektoratet 2017, *Rammeplan for barnehagen*. Hentet 1. August 2017 fra <https://www.udir.no/laring-og-trivsel/rammeplan/>

5 Utdanningsdirektoratet 2018, *Overordnet del – verdier og prinsipper for grunnopplæringen*. Hentet 27. November 2019 fra <https://www.udir.no/lk20/overordnet-del/prinsipper-for-laring-utvikling-og-danning/tverrfaglige-temaer/>

6 *Op.cit.*, 13

tiske til den delen av Dewey's progressive utdanningsfilosofi som fremhever vitenskapens nøytrale metode og fremskrittstro. Utdanningsfilosofen Chet Bowers hevder at Dewey med dette reproducerer kulturelle tankemåter som er årsak til økokrisen.⁷ Vi finner likevel nok inspirasjon i Dewey til å ta ham med i vår relasjonelle tilnærming. For å synliggjøre det vi kaller utdanningssystemets økologi, trekker vi inn læreplanperspektivet til John I. Goodlad.⁸

Vi har i artikkelen satt oss fore å besvare følgende spørsmål: 1) Hva er en økopedagogisk-filosofiske tilnærming til den livskraftige barnehagen? 2) Hvordan kan verdigrunnlaget i læreplanverket, med sine tre gjennomgående temaer, integreres og fremmes i den livskraftige barnehagen? 3) Hvordan utvikles et økopedagogisk credo som kan gi retning for voksne som arbeider i og med barnehagene? Framgangsmåten er primært teoretisk og konseptuell, men vi vil også, som del av en hermeneutisk begrepsanalyse, vise til modelleksempler fra praksisfeltet.

EN ØKOPEDAGOGISK-FILOSOFISK TILNÆRMING

Arne Næss hevdet at økologien som vitenskap trenger økofilosofien for å bringe inn grunnleggende verdipostulater og normer.⁹ Marinbiologen Rachel Carson var et forbilde. Hun kombinerte fakta og verdi i boken *Den tause våren* fra 1962. Carson kritiserte den Vestlige tenkemåte som plasserer mennesket i sentrum (antroposentrisk). «'Kontroll over naturen' er en frase utviklet i arroganse, født av en Neandertal-tidsalder i biologi og filosofi, når det var antatt at naturen eksisterte for menneskets bekvemmelighet».¹⁰ Hun påviste hvordan bruken av DDT i jordbruket slår tilbake på mennesket gjennom, blant annet, maten vi spiser. Hennes økosystemiske forskning og verdivurderinger fikk folk til å ta til gatene med slagord som: «Alt henger sammen!», «Det vi gjør mot naturen, gjør vi mot oss selv!»

Biologen og antropologen Gregory Bateson hevdet at økokrisen viser et epistemologisk problem i Vestens reduksjonistiske tankemåte, at kartet ikke stemmer overens med terrenget; tenkningen samsvarer ikke med hvordan naturen fungerer.¹¹ Fysikeren og systemteoretikeren Fritjof Capra beskriver skiftet, fra den dualistiske til den relasjonelle tankemåte, utover 1970-tallet som et kulturelt paradigmeskifte.¹² Vendepunktet preget en rekke akademiske disipliner i Norden,¹³ inkludert filosofien og pedagogikken.

7 Bowers, Chet A. *Educating for an Ecologically Sustainable Culture*. (New York, NY: SUNY Publisher, 1995), 137-139.

8 John. I. Goodlad, *Curriculum Inquiry: The Study of Curriculum Practice* (New York: McGraw-Hill Book Company, 1979).

9 Arne Næss, 5. utg. *Økologi, samfunn og livsstil* (Oslo: Dagens Bøker, 1999), 18-19.

10 Rachel Carson, *Silent Spring* (Boston: MA: Houghton Mifflin, 1962), 297 (vår oversettelse).

11 Gregory Bateson, *Steps to an ecology of mind* (New York: NY: Chandler Publishing company, 1972), 314.

12 Fritjof Capra, *The turning point*, (London: Fontana Paperbacks, 1983).

13 Paul Hofset og Arne Vinje, *Økologi, Økofilosofi* (Oslo: Universitetsforlaget, 1975); Klas Sandell, "Friluftsliv som samhallskritik", *Argaladei*, no. 3 (2004), 4-7; Karsten Schnak, "Midt I en øko-tid: økopædagogik og økofilosofi" i *Pædagogiske perspektiver: pædagogisk-filosofiske studier*. Ed. Ib Goldbach og Spæt Henriksen København: Gyldendalske bokhandel, Nordisk forlag A7S, 1978), 12-27

I vår tid har Verdenserklæringen, The Earth Charter, fra 2002, understreket betydningen av å «finne en ny start» i pedagogikken, noe som «krever forandring i måten å tenke og handle på...at vi erkjenner vår globale, gjensidige avhengighet og universelle ansvar».¹⁴ Earth Charter betraktes, ifølge Sam Crowell¹⁵, som det etiske grunnlaget for Utdanning for Bærekraftig Utvikling (UBU). Crowell oppfordrer utdanningsinstitusjonene til å involvere hele organisasjonen, alle aktører, i sine bærekraftprosjekter, forankret i en felles etisk tilnærming. En for noen overraskende talsperson for Earth Charter er Pave Frans, som i sin andre encyklika, *Laudato Si'*¹⁶, skriver at realiseringen av charteret «forutsetter en lang nydannelsesprosess», der utdanningssystemet må ta sin del av det felles ansvaret.¹⁷ Han peker på at det er behov for å mobilisere «oppdragere som evner å utvikle pedagogiske veier til en økologisk etikk», samt en utdanning som fremmer «økologiske borgere».¹⁸ Et slikt syn samsvarer med det Aldo Leopold kalte «land ethic», der «en ting er rett når det tenderer til å ta vare på integriteten, stabiliteten og skjønnheten ved det levende fellesskap. Det er galt om det tenderer til noe annet».¹⁹ Capra trekker en klar linje mellom Bateson's systemiske tankemåte, pavens radikale etikk og Næss' økofilosofi.²⁰ Vårt tilbakeblikk på koblingen mellom økofilosofien og økopedagogikken tidlig på 1970-tallet, er et grunnlag for å fremme en økodannelse som i dag følger opp Earth Charter i både barnehagen og skolen.

Økofilosofien

Næss gikk av som professor i 1969 for å vie seg til en filosofisk respons på økokrisen, som ble til økosofien og dypøkologien.²¹ Økofilosofien, eller det Næss kaller «økосоfi», er et personlig verdiorientert helhetssyn, inspirert av hvordan vi er en integrert del av livsveven.²² Et slikt relasjonelt syn er ikke upåvirket av den sosiale og kulturelle konteksten, men likevel et personlig uttrykk for hva vi erfarer og verdsetter. *Fakta* om sammenhenger er ikke nok, vi må bevisstgjøre oss hvilke *verdier* som er på spill. Dypøkologien er en tilnærming til økokrisen der flere personer, på bakgrunn av sine ulike økosofier, går sammen om en felles

14 Earth Charter: <https://earthcharter.org/>, lastet ned 05.12.19.

15 Sam Crowell, *Earth Charter Pedagogy: A Values-Based Approach to Sustainable Well-Being, Ecological Integrity, and Social Justice*, (Amazone, lastet ned juni 2019).

16 Pave Frans, *Laudato Si'*, (Oslo: St. Olav forlag, 2015).

17 *Op.cit.*, 165.

18 *Op.cit.*, 170.

19 Leopolds normative etikk sier: «A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise». A. Leopold, *Sand County Almanac* (New York, NY: Oxford University Publisher, 1949), s. 224-225.

20 Fritjof Capra, "Laudato Si' – The Ecological Ethics and Systemic Thought of Pope Francis", I *Voices of the Earth Charter Initiative Responding to Encyclical Laudato Si'*, red. Alicia Jimenez og Miriam Vilela, (Costa Rica: Concejo Editorial UTN / National Technical University of Costa Rica, 2017), 7-20.

21 Per Ingvar Haukeland (red.), *Dyp glede: Inn i dypøkologien* (Oslo: Flux forlag, 2008).

22 Næss' venn og assistent, filosofen Sigmund Kvaløy Setreng, utviklet i 1969 det han og andre kalte for «økofilosofi/økopolitikk» som et filosofisk verktøy for samfunnskritikk og en ikke-voldelige plattform for Gandhi-inspirerte direkte aksjoner, anvendt i Norge på miljøaksjoner i Mardøla (1970) og Alta (1980). Kvaløy Setreng's «økofilosofi» og Næss' «økосоfi» er to ord for samme tilnærming (Kvaløy Setreng 2002).

plattform av verdier og visjoner som søker løsninger på økokrisen.²³ Her skal vi først ta for oss Næss' syn på «det økologiske Selvet». Deretter, for å belyse forskjellen i den dualistiske og den relasjonelle tankemåten, vil vi ta for oss følgende tre forhold: 1) menneske og natur, 2) det mentale og materielle og 3) vitenskap og myte.

Det «økologiske Selvet» er et sentralt begrep for Næss. Når vi interagerer med andre i en sosial sammenheng, utvikler vi det G.H. Mead kalte «det sosiale selvet». Næss utvider dette til økologiske sammenhenger.²⁴ Det økologiske Selvet (med stor S) bygger på evnen til identifikasjon, «en spontan, ikke-rasjonell (men ikke irrasjonell) prosess hvor vi reagerer på et annet vesens interesse eller interesser som om de var vår egen interesse eller interesser. Intens identifikasjon visker ut opplevelsen av et skille mellom ego og alter».²⁵ Det «økologiske Selvet» består av, ifølge Næss, et «store Selv» og et «lille selv».²⁶ Vår evne til identifikasjon utfolder et relasjonelt (store) Selv, men ikke på bekostning av det unike (lille) selvet. Vi blir oss selv i relasjon til andre aktører i livsveven. Som den amerikanske økofilosofen, David Abram sier, «Vi er menneske bare i kontakt, og i vennskap, med hva som er mer-enn-menneskelig».²⁷

Her skal vi ta et eksempel fra evnen til identifikasjon i barnehagen: En dag vi er på besøk i barnehagen legger vi merke til en masse lyd og bevegelse fra en gruppe barn borte ved vinduet. Barna hadde funnet 3-4 fluer som var fanget og som stanget mot vinduet, og nå forsøkte barna å slå etter dem med hender og sammenrullet papir. En av de ansatte kommer bort, spør om barna tror at fluene har lyst til å leve og om de skulle prøve å hjelpe dem ut. Fokuset snus umiddelbart. Barna ser med ivrige, spørrende øyne. Den ansatte sier: «Hva om vi tar noen plastkopper, fanger dem og så å slippe dem ut?» Som sagt, så gjort. Ivrige og forsiktige barnehender fanger fluene i kopper, holder over åpningene og går i flokk ut og slipper dem fri til stor begeistring. Den ansatte snakker med barna om at alt levende også har lyst til å leve på sin måte. Noen ganger må vi ta liv for å leve, akkurat som fuglene som spiser fluene, men vi trenger ikke å gjøre det når det ikke er nødvendig. Barna følger oppmerksomt med. Etter en stund, utbryter ett av barna: «Jeg skal se etter flere fluer som vi kan redde», og så løper hun inn igjen. De andre barna følger ivrig etter.

Så, til forholdet, mellom mennesket og naturen. Descartes' dualistiske tenkemåte gjorde et skille mellom et rasjonelt subjekt som står utenfor og ovenfor en verden av objekter. Naturen blir betraktet som noe «der ute», som en maskin for menneskelig formål. Økofeministen Carolyn Merchant²⁸ så dette som en androsentrisk tenkemåte (mannssentrert), forfektet av menn i maktposisjoner som tjener på å kontrollere naturen som om det er en maskin, ikke ulikt slik de i århundrer har kontrollert kvinner. Skillet mellom natur og

23 Haukeland, *Dyp glede: Inn i dypøkologien*, 195.

24 Arne Næss, "Self-realization: An ecological approach to being in the world", *The Ecology of wisdom*, ed. Alan Drengson og Bill Devall (Berkeley, CA: Counterpoint, 1988), 81-96.

25 *Op.cit.*, 159.

26 Per Ingvar Haukeland, *Dyp glede*, 157.

27 David Abram, *The Spell of the sensuous* (NY, NY: Random House, 1996), 28.

28 Carolyn Merchant, *The death of nature* (NY, NY: HarperCollins, 1980).

menneske er derimot, som Rachel Carson viste i sin forskning, et kunstig og tenkt skille. I virkeligheten er vi en integrert del av naturen, som fisken i vannet. Adskillelsetenkningen plasserer oss utenfor sammenhengene vi er en del av, noe som gjør det vanskelig å se oss selv både som del av problemet og løsningene. Barn og unge sosialiseres inn i den dualistiske tenkning gjennom ulike sosialiseringprosesser, og konsekvensen for fremmedgjøring er stor, både i forhold til naturen, til andre og til seg selv.

Den amerikanske forskeren Richard Louv skriver i boken *Last Child in the Woods*²⁹ at mangelen på natur i våre liv fører til det han kaller for «nature-deficit disorder», en ubalanse forårsaket av naturfravær. Han studerte barn som lekte i naturen og fant at de hadde bedre samarbeidsevne, konsentrasjon, oppmerksomhet, motoriske ferdigheter, ro, vitalitet, helse, og at de generelt gjorde det bedre på skolen enn barn i skoler der naturen var fraværende. Han konkluderte med at forskjellen lå i naturkontakten. Dette har skapt en internasjonal bevegelse under paraplyen «nature-connection», der barnehager og skoler er bevisst betydningen av naturen i dannelsen.³⁰ Dette kan beskrives som «naturnærvær»,³¹ - vår evne til tilstedeværelse og identifikasjon med naturen. Naturnærvær er å være nærværende i møte med naturen, både den indre og ytre natur. I «nærhetsetikken» til Levinas (ansikt-til-ansikt) og Løgstrup (den etiske fordringen) fremheves forpliktelsen som oppstår i møtet med den andre. For Næss handler dette møtet om evnen til identifikasjon og ønsket om å ta vare på den andre som oss selv. For ham var dette «de vakre handlingers etikk», der vi handler ut fra en indre tilbøyelighet, ikke ut fra en ytre plikt.³²

Det andre forholdet er forholdet mellom det mentale og det materielle, sinn og kropp. Næss fremhever her Spinoza's distinksjon mellom «natura naturans» (den skapende natur) og «natura naturata» (den skapte natur).³³ Det skapende knyttes til det mentale og det skapte til det materielle. Disse er i en inderlig forbindelse, ikke ulikt hvordan Gregory Bateson forstår det mentale og materielle som en nødvendig enhet.³⁴ Begge bryter med den kartesiske dualismen og fremmer et relasjonelt perspektiv.

I Norge har det vært mye snakk om «kunnskapsløftet» i skolen, men hva slags kunnskap eller fornuft er dette? Vi kan illustrere forholdet mellom fornuft og følelse gjennom bildet av en seilbåt, der seilet er følelsene og roret er fornuften. Uten følelse, ingen bevegelse, og uten fornuft ingen kurs. Men gitt at det er to typer fornuft, snusfornuften og ratio, så må vi stoppe opp og se nærmere på hvilken fornuft det er som leder oss. Næss mener det er viktig å se nærmere på hvordan kursen vi går i samsvarer med det vi dypest sett ser som verdifullt. Dette åpner for et potensielt paradoks i skoleverket, hvor Kunnskapsløftet

29 Richard Louv, *Last Child in the Woods* (Chapell Hill, NC: Algonquin Books, 2007).

30 Se for eksempel, Lysklett, Olav B. (2013). *Ute hele uka: natur og friluftsbarnhagen*. Oslo: Universitetsforlaget; Lundhaug, Torbjørn & Neegaard, Henrik Rosted. (2013). *Friluftsliv og uteliv i barnehagen*. Oslo: Cappelen Damm; Nettverk for natur og gårdsbarnehager i Norge (<http://www.naturoggardsbarnehager.no/>); det amerikanske nettverket Children & Nature Network (<https://www.childrenandnature.org/>).

31 Per Ingvar Haukeland, «Kultur- og naturnærvær hos barn og unge», *Kulturarv* nr. 59 (2012).

32 Per Ingvar Haukeland, *Dyp Glede*, 190.

33 Per Ingvar Haukeland, *Dyp Glede: Inn i dypøkologien*.

34 Gregory Bateson, *Mind and Nature: A Necessary Unity* (New York: E. P. Dutton, 1979).

fremhever en type fornuft har bidratt til økokrisen og dermed undergravet bærekraftig utvikling som verdi. Albert Einstein skal en gang ha sagt, «Vi kan ikke løse et problem med samme tenkning som forårsaket problemet».

Til det tredje og siste forholdet, vitenskap og myte, kan det hevdes at Vestlig kultur fremhever vitenskapens kunnskap framfor mytisk imaginasjon. Det mytiske forbindes gjerne med fri fantasi og overtro, men kan det ha en annen betydning? For Næss er det ingen motsetning mellom vitenskap og myte. I boken *Det lange livs far* understreker han: «Det har jo lenge vært klart at skapende forskere trenger mytiske forestillinger om virkeligheten for å få den nødvendige kraft til å leve opp til hva de ser med sitt indre øye».³⁵ Berman³⁶ påpeker at vitenskapens syn på det mytiske har *avfortryllet* verden. Sjelen er tatt ut av alt som lever utenom mennesket. Det utelukker et «jeg-du møte», i Martin Buber's etikk, der en kan møte et tre eller er en elv som et unikt subjekt, ikke som et vilkårlig objekt. Mytopoesien kan forstås som en kreativ imaginasjon som gjenfortryller verden.³⁷ Det betyr ikke at en gir avkall på fakta og vitenskap. Vi kan lære om fluenes faktiske behov utenfor våre spontane møter med dem, men det er ved identifiseringen at vi oppdager fluene som levende vesener, som del av livskraften vi begge deler. Et beslektet perspektiv er *panpsykisme*, der alt har «psyke» (sjel).³⁸ Et panpsykisk blikk kan bidra til å forbinde barn, unge og voksne til naturen, ikke som et objekt, men en del av *anima mundi*, verdenssjelen, som igjen kan fremme undring der vitenskap og myte, kunnskap og imaginasjon forsterker hverandre.

Økopedagogikken

Da Bjørndal og Lieberg inviterte til dialog om hvordan utdanningssystemet best kunne møte økokrisen, lå den økofilosofiske og økosystemiske relasjonstenkningen til grunn.³⁹ Dialogen ble formalisert gjennom det norske Miljølæreprosjektet, - en aksjonsforskende arena for utvikling av miljølære, økopedagogikk og relasjonell didaktikk. Økopedagogikken ble identifisert som følger:

Med økopedagogikk menes den teoretiske og praktiske pedagogikk som tar opp problemstillinger hvor økologisk forskning og tenkning står sentralt. Økopedagogikken har til formål å bevisstgjøre og fremme de verdier, holdninger, kunnskaper og ferdigheter som er nødvendige forutsetninger for at eleven skal se utviklingstendensene i det totale livsmiljø i en økologisk og sosiokulturell sammenheng.⁴⁰

35 Arne Næss, *Det Gode Lange Livs Far* (Oslo: Damm Akademisk forlag, 1995), 7-8.

36 Morris Berman, *The Re-enchantment of the world* (New York, NY: Cornell University Press, 1981).

37 Haukeland, *Dyp glede: Inn i dypøkologien*.

38 Arne Johan Vetlesen, *Denial of nature* (London: Routledge, 2015).

39 Bjarne Bjørndal og Sigmund Lieberg, *Innføring i økopedagogikk. En studiebok for lærere* (Oslo: Aschehoug, 1975)

40 *Op. cit.*, 15

Økopedagogikken har ifølge Bjørndal og Lieberg tre siktemål i allmenndannelsen: 1) gi innsikt i det biofysiske og sosiokulturelle miljøet, 2) gi forståelse for miljøproblemene og de holdnings- og atferdsmessige konsekvenser miljøproblemene bør ha og 3) virke aktivt for løsningen av disse problemene.⁴¹ Bjørndal og Lieberg inntar en sterk normativ posisjon. Det er ikke tilstrekkelig bare å lære om problemene, barn og unge skal lære å se sitt ansvar for en ikke-antroposentrisk løsning av det: «Det er en konsekvens av økologisk tenkning at mennesket ikke alltid bør stå i sentrum for våre verdiprioriteringer. Vi bør identifisere oss med og føle ansvar for alt levende».⁴² Og videre, «økopedagogikken bør ses i nær sammenheng med de overordnede mål for skolen og gi retning til den totale utvikling av elevene».⁴³ Dette fremhever både verdier og holdninger, noe som i dagens høyere utdanning, inkludert lærerutdanningen, har blitt erstattet med «kompetansemål». Et instrumentelt kompetansebegrep kan gjøre undervisningen både snever og grunn, uten meningsbærende forankring og «retning».

Aristoteles sine vitensbegreper i *Den Nikomakiske Etikk*⁴⁴ gir grobunn for nyansering av begrepene kunnskap (episteme), kjennskap (techne) og klokskap (fronesis). Et annet element hos Aristoteles er distinksjonen mellom «poiesis» og «praxis», hvor *poiesis* er den skapende virksomheten som frembringer det som ikke umiddelbart er synlig, og *praxis* er hensiktsmessige handlinger som fremmer det gode liv. Med Kunnskapsløftet i norsk allmenndannelse, er den praktiske klokskapen lite i fokus. Bjørndal og Lieberg var inne på dette når de fremmer undervisning som en «skapende prosess».⁴⁵ De sier at en slik skapende undervisning skal være både faglig-vitenskapelig sentrert, elevsentrert og økologisk-samfunns-sentrert, og at «det skapende element er en forutsetning for at elevene skal kunne utvikle en søkende holdning til livsproblemene».⁴⁶ Barnehagen må også ta tak i konkrete problemstillinger og gi barna en mulighet til å bidra på sin måte, for eksempel til et naturvennlig og bærekraftig samfunn. Alle voksne som jobber med barn i barnehagen, kan være «økopedagoger» i den mest grunnleggende forståelse av ordet, ikke bare dem med formell utdanning. Det greske ordet «ped» kommer av «barn», «agogos» kommer av «å lede» og «øko» kommer som nevnt av «oikos» i betydningen «hjem i livet». Økopedagogen er, slik sett, den som leder barna langs veien «hjem i livet», altså en slags profesjonell «livsvei-leder».

Økopedagogikken bygger, som nevnt, også inn et klart fokus på læreplanene, og fremhever at disse i større grad må fokusere på helheten av kunnskap, kjennskap og klokskap, så vel som den skapende og hensiktsmessige praxis. Det som skiller Bjørndal og Lieberg fra John Dewey er ikke erfaringslæringen eller den utforskende metode, som begge deler, men den økologiske systemtenkningen som plasserer undervisningen og metodene i et

41 *Op. cit.*, 15.

42 *Op. cit.*, 14.

43 *Op. cit.*, 14.

44 Aristoteles, *The Nichomachean Ethics* (Ibooks, 2018).

45 Bjørndal og Lieberg, *Økopedagogikk*, 18.

46 *Op. cit.*

klarere relasjonelt lys. Goodlad, på sin side, rettet en relasjonstenkning mot tolknings- og beslutningsprosessene på veien mellom nasjonale intensjoner og lokale realiteter i læreplanverket.⁴⁷ For å avdekke disse prosessene viste han til sammenhenger mellom det han kalte læreplanens fem dimensjoner: *den ideologiske, formelle, oppfattede, iverksatte og erfarte*. Fra vårt perspektiv gir Goodlad et virkelighetsnært bilde av og et anvendelig systemisk redskap for å integrere læreplanverket i diskusjonen. Første skritt ligger i de *ideologiske* drøftingene innen og mellom det politiske og økopedagogiske området, tett fulgt av de *formelle* beslutningene som nedfelles i nasjonale læreplaner (her R17) og videre i de fagpersonlige *oppfatningene* som utveksles når planer skal tolkes og beslutninger fattes i lys av lokale forutsetninger. I det lokale planarbeidet åpnes det for kreativ utnyttelse av det profesjonelle handlingsrommet myndighetene gir, eksempelvis i en økopedagogisk retning. Den oppfattede dimensjonen inviterer til bevisstgjøring og utvikling av barnehageansattes økopedagogiske credo. Derfra ligger muligheten vel til rette for at den lokale *iverksettelsen* kan farges av en skapende læring som gir barn og unge *erfaringer* forankret i naturnærvær og livskraft.

Et sentralt mål i økopedagogikken er økodannelsen. Ifølge pedagogen Paul Martin Opdal er det karakteristisk for dannelsesbegrepet at det «kombinerer innholdet i oppdrags- og utdanningsbegrepet ved (normativt) å kreve utvikling (transformering) av mennesket i en ønskverdig (verdifull) retning og ved (substansielt) å anta at denne utviklingen skjer gjennom vekst i kunnskaper, ferdigheter og innstillinger».⁴⁸ Som Opdal, ser vi også pedagogikk som en normativ vitenskap med dannelse som overordnet grunnbegrep, forankret i det likeverdige samspillet mellom kunnskaper, holdninger og ferdigheter, og med didaktikk som bro mellom visjoner og realiteter. Men hva er filosofiens plass i dette bildet?

Ifølge Opdal er filosofiens viktigste oppgave å sette spørsmålstegn ved grunnleggende forståelsesrammer og å være både kreativt og kritisk undrende.⁴⁹ Som menneskelig kvalitet og potensiale for erkjennelsesutvikling, bør undring i seg selv kunne ha dannelsesverdi, - en verdi som gis vern og vekst i møte med omgivelsenes oppdragelse, opplæring og veiledning. Vi mener undringen bør få økopedagogisk-filosofisk og økoidaktisk oppmerksomhet, både vitenskapsfaglig, studiefaglig og yrkesfaglig, – især i møte med økokrisen. Økopedagogikken stimuleres av og stimulerer til kreativ økodannelse, – forankret i en økologisk form for didaktisk refleksjon. I økodannelsen er det undrende og skapende «økonselvet» fremtredende. Med forankring i denne eksistensielle økologiske erkjennelsen bør utdanningsfeltet, gjennom alle sine læreplandimensjoner (jf. Goodlad), anerkjenne barns og unges «egenart, deres engasjement og skapende evner».⁵⁰ Pedagoger og barn samskaper læringen i møte med et felles dannelsesoppdrag. Den kreative økodannelsen

47 John. I. Goodlad, *Curriculum Inquiry: The Study of Curriculum Practice* (New York: McGraw-Hill Book Company, 1979).

48 Paul Martin Opdal, *Pedagogisk-filosofiske analyser* (Bergen: Fagbokforlaget, 2008), 32.

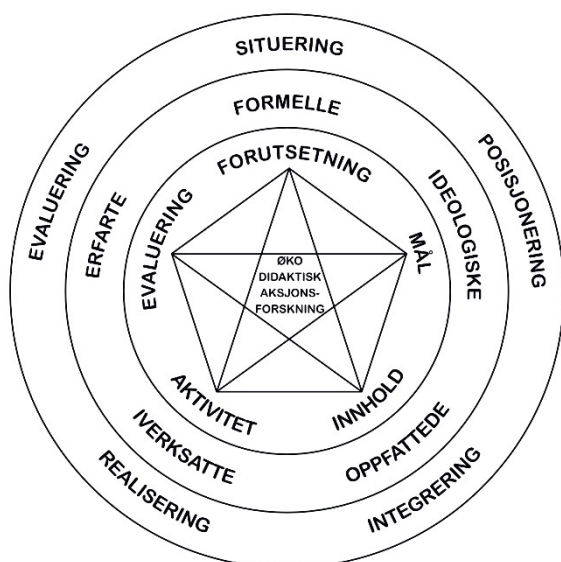
49 *Op. cit.*, 66.

50 Goodlad, *Curriculum Inquiry*, 1979, 17

bør dermed være som «en grønn tråd» gjennom både vitenskapsfaget – studiefaget – yrkesfaget pedagogikk, og «danne grunnstammen i en ny helhetlig allmenndannelse».⁵¹

EN ØKOPEDAGOGISK-FILOSOFISK- MODELL

Bjørndal og Lieberg bidrar til konkretisering av «den livskraftige barnehagen» ut fra følgende begrep: økopedagogikk, didaktisk relasjonstenkning og aksjonsforskende partnerskap. Vi ønsker å knytte disse tre begrepene sammen med økofilosofiens og erfaringslæringens bevegelsesaspekter og Goodlad sine læreplandimensjoner. Vi har gjort dette ved å identifisere fem aspekter i tre plan i det vi kaller SPIRE-modellen (etter forbokstavene til aspektene).



Figur1. SPIRE-modellen for økodidaktisk aksjonsforskning. Haukeland og Lund-Kristensen 2019

I den ytterste sirkelen har vi aspektene ved deltakende aksjonsforskning og erfaringslæringen (slik vi kjenner den fra Dewey). I midten finner vi de fem læreplandimensjonene til Goodlad og innerst de didaktiske kategoriene identifisert av Bjørndal og Lieberg. De fem aspektene i aksjonsforskningen og erfaringslæringen er: 1) *Situering*, med vekt på erfaringer av (problemer, muligheter) i situasjonen barna og barnehagen befinner seg i, for eksempel i forhold til gode naturmøter, 2) *Posisjonering*, der vi bevisstgjør oss verdier og visjoner som knyttes til erfaringene, slik ledelsen og ansatte gjør i forhold til visjonen om den livskraftige barnehagen og utviklingen av økopedagogiske credo, 3) *Integrering*, der vi tar konsekvensene av plattformen inn i handlingsplaner for hva som hemmer eller fremmer posisjonen,

51 Bjørndal og Lieberg, *Økopedagogikk*, 55

som kan dreie seg om både avdelingenes konkrete planer og barnehagens årsplan, 4) *Realisering*, der konkrete valg og handlinger synliggjør verdiene i praksis, som når vi utdyper de gode møtene i livskraften og de tre tverrgående temaene i rammeplanen, 5) *Evaluering*, der vi reflekterer, ut fra relevante kriterier, over hva som er gjort, hva som er lært og hva som er lurt i forhold til veien videre.

Sirklene i SPIRE-modellen fungerer som tre roterende plan, og åpner for fleksibel og dynamisk relasjonstenkning. Med andre ord, refleksjonen og samspillet i SPIRE-modellen foregår innenfor og på tvers av de ulike sirklene. Det særpregede ved didaktisk relasjonstenkning er at refleksjonen foregår som en dynamisk pendling frem og tilbake mellom de fem sentrale kategorier og deres nøkkelspørsmål: 1) *Hvilke* faktorer kan hemme eller fremme økodannelsen (forutsetninger)? 2) *Hvorfor* har økodannelsen verdi (mål)? 3) *Hva* er den vesentlige substansen i økodannelsen (innhold)? 4) *Hvordan* ledes økodannelsesprosessen fremover (aktivitet)? 5) *Hvilken* strategi for tilbakemelding er egnet (evalueringsdesign)? Rekkefølgen på spørsmålene velges av relasjonstenkeren, og pendlingen varer så lenge det er behov for avklaring. Det er situasjonen og helhetsfornemmelsen som avgjør hvor man begynner og når man avslutter denne kreative og kritiske refleksjonsprosessen. For eksempel, situeringen kan knyttes til den formelle læreplanen og forutsetninger, slik modellen nå viser, men dreier vi den ytre sirkelen ett hakk til høyre, kan det da dreie seg om *evaluering* av disse. «Refleksjonsnettets som dannes minner om et økosystem, en levende vev av fri flyt i bevisstheten til den forskende, skapende praktiker». ⁵² Ved å utvide relasjonstenkningen til flere plan, økes relasjons- og refleksjonspotensialet og viser med det et større, mer nyansert og kritisk bilde av den komplekse virkeligheten i barnehagen. Samtidig er SPIRE-modellen en helt konkret og praktisk metode for å reflektere over de ulike relasjonene mellom aksjonsforskningen/erfaringslæringen, didaktisk relasjonstenkning og læreplanteoretisk arbeid.

EMPIRISKE UNDERSØKELSER

Vi vil relatere SPIRE-modellen til to empiriske undersøkelser: 1) en hermeneutisk begrepsanalyse av de tre tverrgående temaene i læreplanverket og 2) eksemplifisering fra et aksjonsforskningsprosjekt i Klokkergaarden Natur- og Kulturbarnehage. En strategi i bruken av SPIRE-modellen kan være å begynne i den ytterste sirkelen. Det vil si å bestemme seg for å gå aksjonsforskende til verks. I denne sammenhengen kan det være nyttig å bruke tid til utviklingen av et felles fagspråk som grunnlag for videre refleksjon og dialog. Erfaring fra barnehagebaserte utviklingsprosjekt viser at kombinasjonen *felles fagspråk og felles modell* skaper et «vi» som gir prosjektet både kraft og retning. ⁵³ Dette fører oss til de neste sirklene i SPIRE-modellen. Til en praktisk innføring i temaet *lokalt læreplanarbeid* (læreplanens fem dimensjoner), slik dette håndteres gjennom *didaktisk relasjonstenkning*. SPIRE-modellen

52 Hanne Lund-Kristensen, «Didaktisk relasjonstenkning som grunnlag i veiledning», i *Veiledning av nye lærere i skole og barnehage*, ed. Eli Kari Høihilder og Knut-Rune Olsen, (Oslo: PEDLEX Norsk Skoleinformasjon, 2010), 84.

53 Lund-Kristensen, «Iverksatt læreplan og reflekterte praktikere».

kan fungere som metodiske grep (aktivitet), som uttrykk for barnehagens livskraftige egenart (innhold), som betingelser for fortsatt glød (forutsetning), som kvalitetssikring av den pedagogiske virksomheten (evalueringsform), og som begrunnelse for alle verdibaserte valg (mål). Her skal vi først ta for oss begrepsanalysen og deretter se på eksempler fra et aksjonsforskningsprosjekt der SPIRE-modellen ble brukt.

En Hermeneutisk Begrepsanalyse

Begrepsanalysen vi velger å følge tar for seg tolkninger i flere steg.⁵⁴ Foruten selve identifisering av begrep, tolker vi begrepene ut fra andre begreper som vi kategoriserer som *forløpere* (begreper som er forutsetninger), *attributter* (begreper som karakteriserer) og *konsekvenser* (begreper som ledes av). Siste steg i analysen innebærer å gi modell-eksempler fra praksisfeltet.

1) Bærekraftig utvikling

I R17 står det under begrepet «bærekraftig utvikling» at «barna skal lære å ta vare på seg selv, hverandre og naturen».⁵⁵ Dette går direkte på forholdet mellom selvet, samfunnet, kulturen og naturen. FNs Verdenskommisjon for Miljø og Utvikling (UNCED) definerte «bærekraftig utvikling» i rapporten *Vår Felles Framtid* som «en utvikling som imøtekommer dagens behov uten å ødelegge mulighetene for at kommende generasjoner skal få dekket sine behov».⁵⁶ Attributtene for en «bærekraftig utvikling» knyttes til samfunnets økonomiske, sosiale og økologiske forhold, så vel som til menneskets evne til å tenke kritisk, handle etisk, vise solidaritet, gi omsorg, ta vare på omgivelsene og naturen.⁵⁷ Slik vi ser det, handler bærekraftig utvikling om den økonomiske, sosiale, kulturelle og økologiske bærekraften.⁵⁸ Vi kan selv utvikle en bærekraftig livsstil, samtidig som vi i fellesskap må utvikle en bærekraftig samfunnsorden og kultur, og ifølge FN haster det.⁵⁹ FN satte perioden 2005 til 2014 som utdanningstiåret for en bærekraftig utvikling.⁶⁰ Målet for tiåret har vært å «integre de verdiene som en bærekraftig utvikling innebærer i alle sider ved læring for dermed å fremme atferdsendringer som muliggjør et mer bærekraftig og rettferdig samfunn for alle».⁶¹

54 Beth Rodgers, (2000). "Concept analysis. An evolutionary view". In *Concept Development in Nursing: Foundation Techniques, and Applications*, ed. Beth Rodgers og Kathleen Knaf, (Philadelphia, PN: Saunders Company, 2000), 77–102.

55 Utdanningsdirektoratet 2017, *Rammeplan for barnehagen*, 10.

56 FN, *Vår felles framtid* (Oxford: Oxford University Press, 1987), 42.

57 Utdanningsdirektoratet, *Rammeplan for barnehage*, 10.

58 Per Ingvar Haukeland og Brandtzæg, «Bred verdiskaping som strategi for bærekraftig stedsutvikling,» *UTMARK*, vol. 1 (2019).

59 International Panel for Climate Change (IPCC) sin delrapport (desember 2018) sier at vi bare har 12 år på oss for å halvere utslipp for å hindre ødeleggende global oppvarming over 1.5 grader celsius, se <https://www.aftenposten.no/verden/i/rLRBE8/Klimapanelet-Verdens-utslipp-ma-halveres-de-neste-12-arene>

60 Astrid T. Sinnes, *Utdanning for en bærekraftig utvikling*, (Oslo: Universitetsforlaget, 2015).

61 Se https://www.miljolare.no/arkiv/?vis=oppslag&op_id=421

Utdanningsdirektoratet i Norge presenterte i 2006 et nasjonalt dokument for bærekraftig utvikling i grunnopplæringen med følgende mål: «Opplæringen skal utvikle samhørighet med andre folk og menneskenes felles livsmiljø, slik at vårt land blir et skapende medlem av verdenssamfunnet».⁶² Dette setter «det skapende» i en *global* kontekst, der det globale inngår i det lokale, og vice versa.⁶³ Konsekvensene knyttes både til barnas egen selvforståelse, hva som gjøres i fellesskap og hvordan barnehagen og skolen bidrar til en bærekraftig framtid. Et eksempel: Når barna blir kjent med andre levende vesener i naturen som del av «nabolaget» til barnehagen, kan et personlig forhold av respekt, omsorg og vennskap utvikles. Men det er ikke gitt. Samtidig er det vanskelig å se for seg et dypt engasjement for naturen uten kjennskap til den.⁶⁴ Det fordrer en klar bevissthet fra de voksne i barnehagen, noe vi kommer tilbake til under drøftingen av «økopedagogisk credo».

2) Demokrati

I R17 er følgende nøkkelbegreper knyttet til omtalen av begrepet «demokrati»: mangfold, respekt, forskjellighet, demokratiforståelse, fellesskap, deltakelse, inkludering, fri ytring, retten til å bli hørt, medvirkning uavhengig av evner og ferdigheter, samisk kultur, åndsfrihet, og oppslutning.⁶⁵ R17 beskriver demokrati som balanse mellom individ og fellesskap. Begrepet fremmes som en grunnmur til det samfunnet vi lever i. Målet er ikke bare at barna skal forstå og verdsette demokratiets styreform, men få en erfaring med hva som forutsetter det. Begrepets *attributter* kan forstås som medvirkning, involvering, det å bli hørt og det å uttrykke sin mening, samt det å lytte til andre, se og respektere andre for sine meninger og akseptere flertallsavgjørelser.

Dewey fremmer, i boken *Democracy and Education*⁶⁶, et perspektiv på demokrati i dansen som knyttes til den sosiale gruppen. For Dewey er læring sosial, og pedagogikken en form for sosial pedagogikk. Det handler om å finne gode måter gruppen kan lære og samhandle på, noe som betyr involvering, medvirkning, respekt, utfordring, sosiale ferdigheter, med mer. Dette er *forløpere* til begrepet, og ifølge Dewey hjelper mangfoldet av perspektiv oss å finne de gode løsningene. Barnehagen kan fremme demokrati ved aktiv involvering og medvirkning. Ordningen med flertallsavgjørelse har blitt beskrevet som demokratiets paradoks,⁶⁷ dersom flertallet har holdninger som undergraver mangfold og involvering. Demokratiet beskrives ikke derfor bare som en ordning der flertallet bestemmer. Konsekvensene er å arbeide med øvelse i medvirkning, kommunikasjon og å se ting fra ulike perspektiv, også fra andre levende veseners perspektiv. Pave Frans⁶⁸ omtalte i *Laudato si*

62 Utdanningsdirektoratet, *Nasjonalt dokument for utdanning for bærekraftig utvikling i grunnopplæringen*. (Kunnskapsdepartementet, 2006), 1.

63 Haukeland og Brandtzæg, «Bred verdiskaping som strategi for bærekraftig stedsutvikling»

64 Per Ingvar Haukeland, «Rikt friluftsliv med enkle midler».

65 Utdanningsdirektoratet 2017, *Rammeplan for barnehagen*, 8.

66 John Dewey, *Democracy and Education*, (New York, NY: MacMillan, 1916)

67 Trond Solhaug, *Utdanning til demokratisk medborgerskap*, (Oslo: Doktorgradsavhandling, Institutt for lærerutdanning og skoleutvikling, Universitetet i Oslo, 2003), 452.

68 Pave Frans, *Laudato si: Lovet være du*, (Oslo: St. Olavs forlag, 2016).

det han kaller for et «økologisk demokrati», der andre arter enn mennesket kan bli hørt og involvert. Han setter dette i kontrast til «konkurransedemokratiet», der naturen tilnærmes som en økonomisk ressurs. Et slikt syn på demokrati samsvarer med den økopedagogiske-filosofiske tilnærmingen.

3) Livsmestring

I R17 er en rekke nøkkelbegreper knyttet til begrepet «livsmestring»: å utjevne sosiale forskjeller, fysisk og psykisk helsefremming, trivsel, livsglede, egenverd, forebygge mobbing, trygghet, utfordring, samspill, prøve ut, fellesskap, vennskap, håndtere motgang og utfordringer, kjent med egne og andres følelser, ro, hvilke og avslapping, fysisk aktivitet, bevegelsesglede, motorisk utvikling, matglede, sunne helsevaner, tro på seg selv og egne evner.⁶⁹ Når så mange begreper knyttes til livsmestring, er det vanskelig å vite hva det er snakk om. Med begrepsanalysen kan vi forsøke å sortere noe. Det som kjennetegner begrepet *attributter*, kan knyttes til hvordan barnet relaterer til seg selv og til andre, som selv-tillit og selv-følelse, mestringstro, forståelse og ferdigheter i å håndtere og balansere medgang og motgang, samt ta konkrete valg ut fra seg selv. Den andre delen går på det å sette grenser, uttrykke oss, evnen til å samarbeide og vise omsorg, både for mennesker og det mer-enn-menneskelige. *Forløpere* til disse attributtene er hva barnet har med seg hjemmefra og kulturen barnet blir møtt med i barnehagen. Eksempelvis dreier dette seg om hvilke grunnleggende holdninger, verdier og mestringserfaringer barnet har med til barnehagen, og hvordan barnehagen skaper eller undergraver en atmosfære av trygghet og utprøving. *Konsekvenser* for barnet kan beskrives som økt mestringstro, mening, velvære, ansvarlighet, glede og ro, mens det for barnehagen handler om å fremme en livskraftig barnehage som får barna til å blomstre.

Eksempler fra Klokkergaarden Natur- og kulturbarnehage

Bare noen lange steinkast fra barnehagen, finner vi et skogsområde som har fått navnet «Drømmelandskogen», – ikke uten grunn. Drømmelandskogen er for barnehagen både et yndet lekeområde og et sted for «de gode møtene» mellom natur, kultur og mennesker. For oss ble møtet med Drømmelandskogen et eksempel på en synkronisering av økodannelsens filosofiske, teoretiske og praktiske aspekter: Naturskjønnheten, det *estetiske* nærværet, forløste umiddelbart en kreativ energi (livskraft) som satte barn og voksne i bevegelse, en indre og ytre flyt som kom til uttrykk både i stille undring over små detaljer i mosen og i høylytt fektelek med naturens egne pinnesverd. Barn og voksne, sammen med alt levende, trer inn i et naturnærvær av et økologisk demokrati. Når slike opplevelser gjen-tas, skapes kultur, som en meningsbærende arena for dyp dannelse, en kultivering av potensialet for *etisk* nærvær med livsgrunnet i oss og rundt oss. Med naturen som lekeplass skapes en lekekultur som stimuleres av og som stimulerer til individuell og kollektiv erfaring

69 Utdanningsdirektoratet 2017, *Rammeplan for barnehagen*, 11.

med det vi gjenkjenner som livsmestring, demokrati og bærekraft, på tvers av generasjoner og posisjoner. Følgende situasjon gir et bilde av denne økodannelsen:

Mens vi går gjennom Drømmelandskogen oppdager vi en lang og kraftig trestamme som naturen har lagt horisontalt, hvilende på en liten høyde i terrenget. Noen oppdager at den er som skapt for å være en naturens egen vippehuske. Et antall barn og voksne fordeler seg sittende på hver ende, mens en av de voksne tar stående posisjon på midten av stammen og setter vippebevegelsen i gang. Vill jubel.

Med voksenperspektiv ser vi både verdigrunnlaget og fagområdene i R17 forløst i et spontant samspill mellom barnas økodannelse og personalets økopedagogiske credo. Et slikt samspill gjenkjennes ved at dialogen flyter fritt mellom mennesker som veksler på å lede an, og som dermed er åpne for å lære av hverandre, på tvers av generasjoner og roller, og i en fortryllet verden av medskapninger. I Drømmelandskogen erfarer vi denne skapende, relasjonelle erfaringsdelingen mellom barn – voksen, barn – barn, voksen – voksen, men også mellom menneske og natur, som et levende uttrykk for barnehagens egen økodannelseskultur. Derfor må økopedagogen stadig zoome ut av Drømmelandskogen for å studere seg selv på avstand, som leder av økodannelsesmøter, og som en bro mellom sitt økopedagogiske ståsted og utdanningspolitiske føringer.

Det var i arbeidet med å utdype de gode møtene mellom menneske, kultur og natur, at begrepet «livskraft» dukket opp, som et uttrykk for det vi i fellesskap forsøkte å belyse, utforske og fremme. Med forankring i dokumentet *Kunnskap for en felles fremtid*⁷⁰, ble ideen om «den livskraftige barnehagen» utviklet:

Fremtidens barnehager må være livskraftige barnehager. En livskraftig barnehage kombinerer liv og kraft, både bærekraft og skaperkraft, og det setter fokus på gleden og mulighetene som ligger i samspillet mellom naturen, kulturen og mennesket på en måte som kombinerer det helt lokale med det helt globale (en *glokal* tilnærming). Det sentrale vil være å skape de gode møtene i dette samspillet og å fremme det vi kaller for en nærhetspedagogikk med vekt på skapende og livskraftig natur-, kultur- og menneskenærvær.⁷¹

Da den nye rammeplanen (R17) skulle implementeres, ble fokuset i den livskraftige barnehagen rettet inn mot de tre grunnbegrepene som vi har tatt for oss. På denne måten ble barnehagens lokale og myndighetenes nasjonale planverk synkronisert gjennom personalets felles arbeid med utvikling av en ny plan for barnehagens virksomhet. I ord og

70 Kunnskapsdepartementet, *Kunnskap for en felles fremtid. Revidert strategi for bærekraftig utvikling 2012-2015*. Hentet fra <https://www.regjeringen.no/no/dokumenter/kunnskap-for-en-felles-fremtid/id696562/>

71 Per Ingvar Haukeland og Hanne Lund-Kristensen, *Fremtidens barnehage, den livskraftige barnehagen* (Drammen: Klokkergaarden, 2013), 2.

bilder formidler årsplanen at barnehagens visjon er å være «en livskraftig barnehage» med et kompetent personale som viktigste ressurs, slik at barna får «gode opplevelser i natur-, kultur- og menneskenærvær» basert på lek og livsglede.⁷² Årsplanen for Klokkergaarden barnehage understreker øko-orienteringen på følgende måte:

Bærekraftig utvikling og økosofi står fram som en viktig bærebjelke i barnehagen pedagogiske plattform. Det betyr at vi ønsker å lære barn at deres handlinger, tanker og følelser henger nøye sammen med hva som skjer i naturen og kulturen, og i samhandlingen med andre mennesker. Vår viktigste oppgave i dette, er å være bevisst på oss selv og våre valg i enhver situasjon.⁷³

Ved hjelp av SPIRE-modellen, satt vi søkelys på fenomenet, begrepet og verdigrunnlaget «livskraft», med referanse til de nevnte grunnverdiene, og med eksempler fra barnehagens daglige virksomhet. Vi ønsket å gi livskraften et språk, som grunnlag både for videre utforskning og for den pågående kommunikasjonen med personalet, foreldrene, praksisstudenter og andre interessenter. Arbeidet tok utgangspunkt i to spørsmål: 1) *Hvilke begreper beskriver livskraften som bærekraft, demokrati og livsmestring hos oss?* og 2) *Hvordan vises dette i praksis?* De fire avdelingene ga oss en rik bukkett av eksempler og begreper. Vi vil her trekke fram 10 hovedbegreper som gikk igjen: 1) *Kjærlighet*, at hjertene åpnes i møtet mellom barna og voksne; 2) *Nærvær*, som det å oppleve nærhet i dype møter mellom mennesker, annet liv og kulturarv; 3) *Mestringsopplevelser*, som gjør oss glade i livet og som bidrar til kreativ utfoldelse; 4) *Glede*, der vi ser blide og glade barn; 5) *Lek og humor*, der barn og voksne leker og ler sammen og det er liv og røre; 6) *Sang*, der spontansang oppstår, når og hvor som helst; 7) *Skapende prosesser*, slik som fellesskap rundt musikk, drama, forming, fortelling og bevegelse; 8) *Omsorg og empati*, både for mennesker og andre levende vesener; 9) *Sanselige samspill og involvering*, estetisk sett som hvordan vi har det rundt oss, felles opplevelser som det å være sammen om å tenne lys ved måltidet, holde hender, være oppmerksomme på hverandre, oppleve naturnærvær; 10) *Utforskning/undring*, i åpen nysgjerrighet over hvordan ting henger sammen, med interesse for alt som lever, og med evne til å se det store i det lille og det lille i det store.

Innspillene fra personalet understreker betydningen av de voksnes væremåte, som gode forbilder, som undrer seg sammen med barna og møter dem med respekt og anerkjennelse. Videre fremheves betydningen av både å se og lytte til barna, stimulere til deltakelse og medvirke i leken og læringen. Pedagogene må også hjelpe barna å uttrykke seg verbalt og nonverbalt, og skape en organisk og forutsigbar hverdagsrytme som ikke stresser barna, men som følger barnas egen rytme slik at de kan bli kjent med seg selv. Gjennom prosjektet har personalet blitt mer bevisst på perspektivskiftene i de gode møtene, slik som episoden med fluene og opplevelsene i Drømmelandskogen. Bevisste voksne gir bevisste barn, men

72 Klokkergaarden Natur- og Kulturbarnhage, Årsplan 2018-2019, 9.

73 *Op. cit.*, 15.

det er ikke gitt at slik bevisstgjøring forekommer. Det fordrer også bevisste ledere i både barnehage og skole.

UTVIKLINGEN AV ØKOPEDAGOGISKE CREDO

Først og fremst viser empirien at alle tre sirkene i SPIRE-modellen, hver for seg og sammen, gir bedre forståelse for sammenhengen mellom lokale forhold og nasjonale føringer. Samtidig viser den ikke så godt hva som er drivkraften i forståelsen og refleksjonene. For å fremme eierskap til arbeidet med den livskraftige barnehagen blant ansatte, trengs en bevisstgjøring av det vi kaller «økopedagogiske credo». Som et pedagogisk verdisyn inspirert av å finne løsninger på økokrisen. Vi har hentet uttrykket fra Dewey,⁷⁴ som beskriver sitt pedagogiske credo ved å stille fem grunnleggende spørsmål til hva en pedagog tror på: hva er opplæring, hva er skole, hva er innholdet, hva er metode, hva er skolens rolle i samfunnsutviklingen. Akslen & Sæle bruker «pedagogisk credo» relatert til barnehagelærerstudenters profesjonsdannelse, som et uttrykk for det utdanningsfeltet tradisjonelt har kalt «pedagogisk grunnsyn».⁷⁵ Basert på erfaringer fra barnehagelærerutdanning samt utviklingsarbeid i barnehagefeltet, ser vi at det didaktiske arbeidet med pedagogisk credo bidrar til å sikre kvalitet, spesielt i dannelsesmøtet mellom barnet og pedagogen.⁷⁶ Kvaliteten innebærer at pedagogen evner å være bevisst egen rolle, både faglig og personlig, og på det grunnlaget kunne ta profesjonelle beslutninger. Alle som jobber i barnehagen, enten de er assistenter, ledere, miljøarbeidere, vaktmestere eller lærere, er likestilte som økopedagoger i økodannelsen, selvfølgelig ut fra ulike roller, interesser og talenter. De ansatte i barnehagen trenger, å bevisstgjøre seg sitt økopedagogiske credo, ikke ulikt Næss' syn på utviklingen av personlige økofilosofier (økosopher).⁷⁷

Denne bevisstgjøringen utvikles eksempelvis ved at pedagogen utfordres til å begrunne sine didaktiske valg ut fra SPIRE-modellen. Betydningen av denne «øvelsen» kommer spesielt til uttrykk når pedagogen oppfordres til å formulere sitt økopedagogiske credo som grunnlag for det profesjonelle, økodidaktiske dannelsesoppdraget, slik dette utspilles i spenningsfeltet mellom barnehagefaglig kompetanse og utdanningspolitiske føringer. I dette skapende spenningsfeltet utforsker økopedagogen sitt credo, finner sitt profesjonelle handlingsrom, utvikler sitt profesjonelle skjønn og danner sin profesjonelle integritet på en personlig måte.⁷⁸

74 John Dewey, *My pedagogic creed*, (New York, NY: E.L. Kellogg & CO, 1897).

75 Åse Nylenna Akslen og Ove Olsen Sæle, *Pedagogisk grunnlagstenkning og credo. Fra student til barnehagelærer* (Oslo: Universitetsforlaget, 2015).

76 Hanne Lund-Kristensen, «Iverksatt læreplan og reflekterte praktikere». *FoU i Praksis* nr. 17. (2003).

77 Haukeland, *Dyp Glede: Inn i dypøkologien*.

78 Lund-Kristensen, «Iverksatt læreplan og reflekterte praktikere»; Lund-Kristensen og Olsen, «Didaktisk kompetanse».

En velprøvd strategi i økopedagogikken, for å synkronisere den individuelle og den kollektive siden av økopedagogiske credo, er å reflektere sammen.⁷⁹ Følgende spørsmål er aktuelle:

1. Hva ser jeg/vi som livskraften i barnehagens økodannelse?
2. Hvordan ser jeg/vi at livskraften i barnehagens økodannelse kommer til uttrykk?
3. Hvilken strategi ser jeg/vi kan navigere livskraften i økodannelsen i ønsket retning?
4. Hvilke faktorer ser jeg/vi bør være tilstede for at livskraften i økodannelsen blomstrer?
5. Hvorfor ser jeg/vi livskraften i barnehagens økodannelse som verdifull?

Det første spørsmålet retter refleksjonen inn på *innholdet* i barnehagen. Hva er det som skal læres i økodannelsen? For å svare på dette må vi besvare hva jeg/vi mener med begrepet livskraft, og hvordan det relateres til de tre verdiområdene bærekraftig utvikling, demokrati og livsmestring, og hvordan jeg/vi kan la livskraften prege økodannelsen i barnehagen. For eksempel, hva slags kompetanse dannes når livskraften gjennomsyrer økodannelsen mellom utvikling, lek og læring, og mellom omsorg, oppdragelse og opplæring? Hva kan vi hente fra rammeplanen om livskraft ut fra en analyse av de tre begrepene? Refleksjon over barnehagens innhold handler om hvordan livskraften kan fremmes gjennom barnehagedagens mangfold av opplevelser. Syn på innholdet sier noe om den allsidige økodannelsen, dvs. om integrering av ulike kompetanser og hvordan disse relateres til barnas utviklingsmessige forutsetninger og potensialet i barnehagens omgivelser.

Det andre spørsmålet reflekterer over *aktivitetene* i barnehagen. Det tar opp hvordan livskraften vises. Hvordan merker jeg/vi at livskraften gjør seg gjeldende, i kroppen, i sinnet og i det sosiale? Det kan knyttes til det kognitive, emosjonelle og psykomotoriske i læringen. Det sier også noe om hvordan livskraften henter næring, som fra økoselveksten, fra fellesskapet og fra naturen, og hvordan den skapes gjennom lek, estetiske opplevelser, undring, og forskende nysgjerrighet. Økopedagogen må kunne si noe om flytsonen mellom voksenstyring og barnstyring, og om hva det vil si å «se mening i barnets atferd».⁸⁰ Dypest sett handler ikke økopedagogens profesjonsdannelse om å lære noe nytt, men om å oppdage, utforske og mestre gjennom refleksjon over praksis «noe man allerede har i seg».⁸¹ Barnet og økopedagogen lærer sammen⁸², men økopedagogene må, hver for seg og sammen, kunne si noe om hvordan legge til rette for aktiviteter som leder barnet inn økodannelsen og i undringens verden, gjennom bevisste valg av å «gå foran, gå ved siden eller gå bak».⁸³

Det tredje spørsmålet reflekterer over *evalueringens* rolle i økodannelsen. Det tar opp hvilken strategi for evaluering som hjelper oss å vite om arbeidet går i ønsket retning. Strategien formes av svarene som gis på spørsmål om hva som bør evalueres, av og for hvem, hvorfor, når, hvordan, og i forhold til hva. Den valgte strategien sier noe om hvilken

79 Lund-Kristensen, «Iverksatt læreplan og reflekterte praktikere».

80 Lars Smith og Stein Erik Ulvund, *Spedbarnsaldere*, (Oslo: Universitetsforlaget, 1996), 392.

81 Helle Jensen et.al., *Empatiboken. Empati – det som limer verden sammen*, (Oslo: Arneberg Forlag, 2013), 17.

82 Jon-Roar Bjørkvold, *Det Musiske Menneske*, (Oslo: Freidig forlag, 1989).

83 Hanne Lund-Kristensen og Knut-Rune Olsen, *Læreplanutvikling og lek i skolen*. (Tønsberg: Forlaget Norsk Studieguide, 1997), 53-56.

kultur for tilbakemelding en selv ønsker å være del av, og hva er best egnet for en livskraftig barnehage. Eksempelvis kan det være gunstig å velge evalueringsformer som ikke virker dømmende, ydmykende eller truende, men i stedet stimulerer til et forskende og skapende fellesskap. For at den livskraftige barnehagen skal bidra til det vi antyder er mulig og mener er ønskelig, må vi ha en evalueringsstrategi som er tilpasset livskraftens mangfoldige uttrykk. Her kan vi få hjelp fra kunsten, dvs. fra estetiske, sanselige, kreative, kommunikasjonsformer.

Det fjerde spørsmålet reflekterer over *forutsetningene* for at livskraften skal blomstre. Det tar opp formelle, praktiske og humanøkologiske betingelser som hemmer og fremmer livskraften, det vil si hvilke muligheter og begrensninger jeg/vi ser for realisering av livskraften i vår barnehage. Forutsetningen for at livskraften skal blomstre, eksempelvis gjennom leken, ligger i økopedagogenes samlede kompetanse.⁸⁴ Dette arbeidet betinger en refleksjon over utvikling av personalets økodidaktiske kompetanse. Et eksempel på hemmende faktor er når barna er innendørs og de kan raskt bli utålmodige, mens en fremmende faktor kan være å bruke Drømmelandskogen som et all-levenes læringsfellesskap. For barnehager som ikke har direkte tilgang til grønne arealer, vil situasjonen likevel kunne være den samme, og økopedagogen må reflektere over hvordan de dype møtene mellom menneske, samfunn, kultur og natur også er tilstede i byen, gjennom vekster som, fugler, himmel og byens egen livskraft, atmosfære og rytme.

Det siste spørsmålet reflekterer over *mål og formål* med økodannelsen, og tar opp hvorfor livskraften er en betydningsfull ressurs i barnets økodannelse. Dette kan videre knyttes til en individuell og felles tolkning av rammeplanens verdigrunnlag, slik vi så med de tre begrepene. Samtidig kan det ta opp rollen barnehagen har i samfunnet som en aktør for å opprettholde og utfolde livskraften og for å sikre en livsmestrende, demokratisk og bærekraftig samfunnsutvikling. Hva tenker jeg/vi om hvorfor livskraften kan gi barnet en meningsfull og verdifull økodannelse som grunnlag for «veien videre»? Det dreier seg her om å begrunne valg av verdier og idealer, og hvilke etiske hensyn som skal prege barnehagen, ens eget syn på barn, barndommens egenverdi og hva som er «barnets beste». Refleksjonen må ta innover seg de ideologiske brytningene som kan oppstå mellom den dualistiske og relasjonelle tenkningen. Det hører derfor til utviklingen av det økopedagogiske credoet å forstå og å håndtere ideologiske konflikter.

Til slutt, utviklingen av personlige økopedagogiske credo er avgjørende for utvikling av den livskraftige barnehagen. Barnehageledelsen må derfor gi personalet tid, rom og ro til dette grunnleggende og gjennomløpende refleksjonsarbeidet, bygget på erkjennelsen om at personalets profesjonsdannelse er en forutsetning for barnehagebarnets allmenndannelse.

84 Lund-Kristensen og Olsen, *Læreplanutvikling og lek i skolen*, 53.

KONKLUSJON

I denne artikkelen har vi tatt et tilbakeblikk på øko-orienteringen på 1970-tallet for bedre å forstå hvordan livskraften kan integrere natur, samfunn, kultur og menneske på en måte som fremmer de tre tverrgående temaene i læreplanverket i Norge, bærekraftig utvikling, demokrati og livsmestring. Utfordringen ved å se livskraften som en syntetisering av disse tre temaene ble tydeligere etter begrepsanalysen. Kompleksiteten er stor. Den økopedagogiske-filosofiske tilnærmingen, forankret i SPIRE-modellen, hjelper i håndteringen av komplekse sammenhenger, slik vi finner i utviklingen av den livskraftige barnehage og økopedagogiske credo blant barnehagepersonalet. Konkretiseringen av konseptet *den livskraftige barnehagen* har imidlertid bare så vidt begynt. Denne artikkelen er et første forsøk på å artikulere hva konseptet kan innebære, både i teori og praksis. Det er behov for mer teoretisk diskusjon og forskning på flere forhold: livskraftens betydning i økodannelsen, hvilken rolle økopedagogen spiller, hvordan det økopedagogiske credo bidrar til å skape en felles økopedagogisk plattform, forholdet mellom den livskraftige barnehagen og den livskraftige skolen, og hva tilnærmingen betyr for lærerutdanningen. Men utfordringen er klar, som pedagoger må vi finne en vei hjem som imøtekommer den voksende økokrisen og som integrerer natur, samfunn, kultur og menneske på en livskraftig måte. Slik kan bærekraftig utvikling, demokrati og livsmestring fremmes i årene som kommer.

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Randall Curren and Ole Andreas Kvamme

Preserving opportunities to live well:

A conversation with Randall Curren on sustainability and education

Randall Curren is Professor and Chair of Philosophy at the University of Rochester in upstate New York. In this position, Curren has for decades made substantial contributions to the fields of ethics, social and political philosophy, philosophy of education, Ancient Greek philosophy, and even moral psychology. Several of these interests converge around the issue of sustainability and education, a relationship Curren has examined for quite some time and which is explored in the following.

In 2009, Curren's assessment of the UNESCO strategy regarding education for sustainable development was published in the series of IMPACT pamphlets by the Philosophy of Education Society of Great Britain¹ in which philosophers bring perspectives to bear on current education policy in the United Kingdom. A year later, Curren, along with numerous other philosophers and ethicists, contributed to the anthology *Sustainability Ethics: 5 Questions*.² Curren writes in that work that: "Sustainability is the defining challenge of our time and may continue to be for as long as human civilization survives"³; and "We've barely begun to conceptualize an ethic of sustainability. The questions that follow are an invitation to identify some of the starting points."⁴ In 2017, Curren and his co-author, geologist Ellen Metzger, published *Living Well Now and in the Future: Why Sustainability Matters*,⁵ which demonstrates how sustainability is an interdisciplinary challenge in several respects. This book also brings together many of Curren's persistent interests, including issues of ethics, justice, capabilities, and education, and demonstrates his concurrent engagement with Aristotelean and Kantian ethics.

The interview took place in Curren's office an afternoon in May 2018.

1 Randall Curren, *Education for Sustainable Development: A Philosophical Assessment* (London: PESGB, *Impact Series*, 2009). Republished on-line: <http://onlinelibrary.wiley.com/doi/10.1111/imp.2009.2009.issue-18/issuetoc> (Wiley Online Library, 2011).

2 Randall Curren, "5 Questions". In *Sustainability Ethics: 5 Questions*, eds. Ryne Raffaelle, Wade Robison and Evan Selinger, 71–83. (S.I.: Automatic Press, 2010).

3 Curren, «5 Questions», 71.

4 Curren, «5 Questions», 72.

5 Randall Curren and Ellen Metzger, *Living Well Now and in the Future. Why Sustainability Matters*. (Cambridge, Massachusetts: The MIT Press, 2017).

Randall Curren, University of Rochester, NY, USA
e-mail: randall.curren@rochester.edu

Ole Andreas Kvamme, University of Oslo, Norge
e-mail: o.a.kvamme@ils.uio.no

Big lessons and hurricanes

Ole Andreas Kvamme (OK): You are a philosopher with a substantial engagement in both education and sustainability, neither of which are of particular concern to the majority of philosophers. So, let us begin there: What awakened your interest in education and sustainability issues, respectively?

Randall Curren (RC): The story of how I became interested in education goes back to when I was in high school. I was an editor of an unauthorized school newspaper and our first issue was devoted to critiques of the school. Sale of the paper was banned on the school grounds, but we sold out the entire print. All the teachers bought copies, and by the time I walked into my trigonometry class the teacher already had a copy on her desk. She told me she had read my essay. It was a critique of the testing practices of our school.

I had been reading Bertrand Russell and Alfred North Whitehead, who had a famous partnership in the philosophy of mathematics. That led me to Whitehead's important early 20th century classic essay on the aims of education, which presented a theory of the cycle of learning, or three stages of learning. His view was that educators too often focus on what he called the stage of "precision," in which the student must master all of the complex details of a field. They tend to overlook the stage of "romance," in which the student becomes truly interested in the field and its central questions. Educators also tend to move on too quickly after the mastery of details. They don't leave time for the stage of "generalization," in which students should pause and think about what it all amounts to and what the general lessons are. Whitehead's belief was that most of what students remember into the future is not all the little details, but the big lessons and the way one sees the world through the perspective of the field. So I argued in my essay, in this unauthorized school paper, that the testing practices of our school halted our learning before we could get to the stage of generalization. It was a bad approach.

My reward for this was that my trigonometry teacher asked me to teach the entire week of class concerning something that is not taught any more: the slide rule. It was a kind of calculating device before there were electronic calculators. So, I taught the unit on the slide rule the way I thought it should be taught. The offer was not just to teach that unit, but also to set the exam and grade it. So in high school I was grading my fellow students.

OK: Were you guided to Russell or Whitehead by somebody?

RC: No. In my neighborhood we had a library and the summer before high school I was mostly reading math books from that library. A couple of them were very philosophical and I found them fascinating,

Then I attended an all-city high school across town, and where I changed buses there was a bookstore where I spent a lot of time. I discovered philosophy partly through reading physics and partly through stumbling into the philosophy section in that bookstore and making connections between the work of Russell and Whitehead and the mathematics I had been reading the previous summer. I had no teacher or parent who supported me in my emerging interest in philosophy.

The environmental part came much later, although I began reading in ecology even before I began reading philosophy. It was really because of the hurricanes Katrina and Rita flooding New Orleans, my hometown, that I began to embrace studies of sustainability as an aspect of my philosophical work. That was when these things came together for me.'

The significance of cross-disciplinary collaboration

OK: Let us turn to the book *Living Well Now and in the Future: Why Sustainability Matters*, published in 2017 with your co-author, the geologist Ellen Metzger. In the foreword, you draw the reader's attention to this cross-disciplinary collaboration by stating, "A hard truth about sustainability is that it cannot be adequately addressed within the confines of any one discipline."⁶ In the following, we will mainly be focusing on philosophical aspects of your work, but could you first comment on the impact this cross-disciplinary collaboration had on the framing of the book?

RC: I think anyone who reads the book perceives that we draw on several different disciplines. It draws on work in ecology and climatology, and very broadly on earth systems analysis. So that is where the natural science is. It also reflects some debates in the geoscience community, which has been very concerned in recent years with the public responsibility of scientists. If everything seems to be going pretty well in the world, it is enough to do your science well, get it published, and leave it to the public and to leaders and policy makers to figure out which of the science you have done is useful for addressing problems of public concern. But the geoscience community has now come to see that we are in a crisis, that we are living far beyond our means as a global human population. One big focus of concern is how scientists can better communicate to the public and to policy makers the seriousness of what we are seeing in the evidence about the changes in the planetary systems. Another focus is on how collaborative research can be more efficient in producing the knowledge we need to live more sustainably.

Besides the natural science, there is some institutional theory and economics, theories of governance, and psychology in the book. I think a lot of work on sustainability reflects the disciplinary stances or particular foci that people had before they began to think about sustainability. And for many philosophers, their orientation was in environmental ethics. Mine wasn't. I was a social and political philosopher, primarily.

OK: Finding a common language is often reported to be a major challenge when it comes to cross-disciplinary efforts...

RC: It is huge. Existing disciplines have certain questions that they develop to address. There are the driving questions, the explanatory scheme, the explanatory posits, the theories the sciences talk about as doing the important explanatory work. So you have a conceptual apparatus and that comes with a set of entities and measures. So if you are asking new

6 Curren and Metzger, *Living Well Now and in the Future*, x.

questions the way we are now asking questions about sustainability, you need to develop new concepts and new theoretical constructs, and new measures to go with them. And these are not going to be part of any antecedent science. Some of them might be partially based on existing concepts and posits, but in the emerging field of sustainability studies, we have to invent a new system of concepts and posits and measures. So, we are doing that to some extent in the book; we are inventing a new language of sustainability and doing it in a way that is particularly concerned with getting clarity about the ethical matters.

If I can say one other thing, many philosophers doing practical philosophy will realize that facts matter even to the questions they are posing as philosophers, but they will not want to, as philosophers, assert facts. So they will say, “Well, supposing such and such is true about climate, then these philosophical questions are important.” Then they will go on from there. Part of the difference that collaborating with a scientist made for me was that the scientist didn’t have any hesitation to assert the facts on the basis of the sciences. So, this book is written for a very wide audience of people coming from different places, different disciplines, and with different questions in mind, and it is not posing the factual questions hypothetically. Having a scientist involved gave me, as a philosopher, a confidence and some basis for just saying, “Here is the science and we are going to accept it and build on it.”

The conception of sustainability

OK: This is foremost a book on sustainability, notoriously a contentious concept, subject to numerous definitions. What conception of sustainability do you bring forward here?

RC: You are absolutely right. The language of sustainability is used in many, many ways. Examining it over a period of time, I thought a lot of it was inexact and loose. We were concerned with having a well-defined vocabulary or language of sustainability. A very important factor was the history of negotiations leading up to a kind of global north–south understanding about the importance of both protecting the environment—hence a kind of environmental or ecological sustainability—and the importance of addressing poverty. So the doctrine of sustainability *and* development emerged from a geopolitical process, and this language evolved into talking about sustainable development.

We argue that it is difficult to achieve a morally or ethically optimal understanding of sustainability if you begin from the idea of sustainable development. There is a presumption built into the idea of sustainable development that development is in some ways favorable to sustainability. We agree, but we think that it is also important to be clear about the ways in which development is *not* favorable to ecological sustainability. It is more conducive to conceptual clarity and being able to frame and investigate the key questions, if you begin by defining sustainability as an ecological concept. So that is the primary point of departure of the book.

What is most fundamental is recognizing that we rely on healthy functional ecosystems, and if we overburden those systems in ways that damage their capacity, then that is an extremely serious problem. It is like borrowing against your income to a point where

you are borrowing more against future earnings than you could ever repay. That is a strictly financial analogy. So, sure, we are continuing to spend more of Earth's wealth, but we are running up debt which will have to be repaid, and the way in which it will be repaid is that the ecological systems will collapse. In some regions, they are already beginning to collapse. That's the most fundamental kind of sustainability at stake.

The second most fundamental aspect of sustainability is our reliance on whatever we take from nature to sustain economic activity—what we call throughput, the material throughput of an economy. That is a somewhat distinct problem from the stability of ecosystems. It is usually intimately related to such stability, but to some extent they are separate issues. So, distinguishing ecological sustainability as the most important, environmental or throughput sustainability is the second most important. That is where we begin, but then we recognize, of course, that we should all care about the stability of the built and human systems on which we depend.

OK: This is where you bring in socio-political sustainability?

RC: Yes. If you examine the literature, sometimes there are assumptions made that are a bit too quick, a bit too simple, about the stability of social-political systems depending on the stability of ecosystems and the stability of throughput. These forms of dependency are crucial, but there are further dimensions of socio-political sustainability. Socio-political systems—or socio-political-economic-educational systems, for they are all interrelated systems the way they work now—could have patterns and dynamics that would cause them to fail, irrespective of whether those human systems are taxing ecological systems or throughput streams to where they are going to fail.

The ethical heart of sustainability: Preserving opportunities to live well

OK: It seems that in all that you bring forward there is a focus on preserving opportunities to live well...

RC: Yes, this is an attempt to put a finger on the ethical heart of the idea of sustainability. The idea of sustainability is about how we are living, and whether the way we are living is overburdening the natural world in a way that cannot go on indefinitely. The basic assumption about all these demands on the natural world is that they are a convenient or necessary basis for us to live in a way we desire to live. I think from an ethical standpoint, what we desire in how to live is not as ethically salient or important as what's actually conducive to us living well. Because I think we would all agree that what we want is to live well, even though we disagree about what is involved in living well and necessary to living well.

We are living in the way we do, overburdening nature, thinking that this is all essential to living well. But once you frame things this way, you can ask the hard philosophical and, to some extent, empirical, psychological, and social questions about what actually is inherently involved in living well. What is necessary to living well? How do our institutions shape the decisions we make that drive up consumption with each passing generation? And what is the evidence that driving up consumption is actually enabling us to live better? It turns

out, when you pose these questions, that the evidence is not very good that we are actually living better. We are living in a more consumptive way; many people have a more luxurious lifestyle. But we are not on the whole demonstrably happier. The question then is why are institutions functioning this way? Why do they drive up consumption and overburden the natural world in a way that will diminish opportunities to live well in the future, while also apparently not doing such a good job of enabling us to live well now? If you are concerned about us living well now, and feeling free to focus enough on the future to not destroy future opportunity, then it is very natural to focus on the structures of society. It is simplest to refer to institutional structures, but these include such things as how we design cities, how we design transportation systems, housing, and food systems. All of these institutions and the rules of how they operate shape how much we consume. So, at the heart of the book is an attempt to understand what is inherently involved in living well, and how the ways we are living are diverging from that because of the growth dynamics of our institutions.

A eudaimonic conception of equal opportunity

OK: You state in the book that the defining aspect of sustainability is *diachronic*, emphasizing how the ways we live now have impact through time, i.e. on the opportunities to live well in the future. It is not first of all *synchronic*, focusing on the present situation. On the other hand, when you talk about the institutional dimension as you do now, a synchronic emphasis is also distinct. In the title of the book, you are even combining both perspectives—“living well now and in the future.” Can you flesh out how you conceive the tension that may be perceived here?

RC: I guess something that has to be said, is that the heart of the book is an attempt to figure out a productive way, and an ethically helpful way, to conceptualize what sustainability is and how to pursue it. Offering philosophical and ethical guidance for the pursuit of sustainability requires us to elaborate principles of sustainability ethics and to some extent a way of thinking about justice. So, the book does do those things, though it would have required a much longer book to do them in the detailed way that professional philosophers might want to see. The book was written to be one that many people could read and understand.

John Rawls defends a set of principles of justice⁷ and the first is a set of rights and liberties for all the members of society. These should be a reflection of the members of the society sharing the status of free and equal citizens. Then he comes to questions about the other things we need besides those basic rights and liberties—other kinds of so-called primary goods. How do we distribute these primary goods?

7 John Rawls, *A Theory of Justice*. (Cambridge, Massachusetts: The Belknap Press of Harvard University Press, 1971).

Among Rawls's distributive principles, the first (and the one that gets priority) is the principle of fair equality of opportunity. So, we try to show that the way Rawls conceptualizes it doesn't work, when trying to conceptualize the preservation of opportunity over time. It depends on there being a common pool of occupations to which people are competing on fair terms, and over time there isn't any such common pool of occupations. So that is a very important philosophical move in the book. I think to understand the preservation of opportunity over time, you have to identify what is inherent to living well. It can't be fair and equal access to whatever opportunities there are. You have to focus on the inherent quality of the opportunities. This is intended to be a very helpful move in the book, because it lets us formulate an objective account of what kinds of opportunities people need and then evaluate the performance of society and institutions in providing what everyone needs. The flip side of this is that the evaluation of institutions would also rely on what we know about the association between materialism and unhappiness. People who are more materialistic tend to be less happy. If you induce unhappiness or anxiety it tends to make people more materialistic, selfish, less charitable, less connected to others. Growing inequality within workplaces and society makes people less happy, less able to focus on the inherent rewards of the work they are doing. It makes them more intensively focused on the material rewards. There are perverse mechanisms in the way our systems are making people more materialistic and less happy.

So, there is a principle of synchronic distributive justice stated at the end of chapter 4 in the book. And it is not Rawls's principle of fair equality of opportunity, which requires that everybody, people from all different social strata, must have essentially equal prospects of getting the best jobs. My own principle is essentially that people will need to have equal opportunities to live well, and to do good work. This is a eudaimonic conception of equal opportunity, and it is also projectable over time, or diachronically. Sustainability requires that future generations have opportunities to live well that are as good collectively as we have now. So, it is not a deeply detailed theory of justice, but it is a theory of justice in equal opportunity, both now and into the future. Sustainability itself concerns the preservation of opportunity over time, but to understand what this means and to achieve it we need a eudaimonic understanding of opportunity that also allows us to pursue synchronic equality of opportunity without stimulating unsustainable consumption.

Sustainability ethics

OK: I have seen Dale Jamieson and Chris Schlottman stating in *Sustainability Ethics: 5 Questions*,⁸ a publication that you also contributed to, that they are pluralists when it comes to sustainability and that it is not clear there is a distinctive subject such as sustainability ethics. Here you definitely take another stand?

8 Dale Jamieson and Chris Schlottman, "5 Questions," in *Sustainability Ethics: 5 Questions*, eds. Ryne Raffaella, Wade Robison and Evan Selinger, (S.I.: Automatic Press, 2010), 118.

RC: I have been doing practical and professional ethics for a long time. If you go back forty years, it was more common for philosophers who do ethics to think of practical ethics as an exercise in applying moral theories. But already thirty years ago this view was being rethought. If you look at the efforts to conceptualize the field of biomedical ethics, you have a domain of practice consisting of health care and medical research. So the question is, if that's a sphere of human practice, what are the relevant ethical principles? It is very easy to agree that physicians should respect patient autonomy, not keep secrets from them about their health, not violate their privacy, and act so as to benefit them. You don't need a moral theory to decide that those are the right principles.

With regard to sustainability, the first question is what the domain of practice is. My answer is that it is everything we do that may affect future opportunity by influencing the impact of human activities on the natural systems on which we rely. If that is the domain in question when talking about sustainability, then my question is just like the one regarding the domain of biomedical practice. What are the relevant principles? It is surprising to me that this question has not received more attention, but the theories of value that have dominated environmental ethics lead one in other directions. I present the principles of sustainability ethics I have identified as applications of two basic ethical ideas: that we should show each other basic moral respect as equals, and that we should take care to avoid harming each other. This is not an application of Kantian moral theory. It is not an application of any theory. Does it have Kantian elements? Sure, it does. But you could equally say that there are Socratic elements.

The status of non-human life

OK: A distinct demarcation in *Living Well* is that you confine the attention in the book to human well-being. As a consequence, as you just indicated, issues like the value of nature, central to environmental ethics, are mostly left out. You don't dismiss this aspect as irrelevant and you even assess the arguments for the value of non-human life as compelling. Does the choice to stay away from this issue express a priority, nevertheless? What is the rationale behind this choice?

RC: You can call it a strategic decision, in the way we wrote the book, to speak to fellow human beings about why, even if they only care about other human beings, they should regard sustainability as important. The subtitle "why sustainability matters" implies a question, and the answer in the book is roughly that it matters to the quality of a human future. However, there are also the elements of an argument in the book that it is not just the ability of humans to live well that ethically matters—the ability of non-humans to live well also ethically matters. At the point when we were imagining that we would complete a much shorter book in several years less time than this one took, we also thought that the question of how to prioritize or balance opportunities for humans and non-humans was too big to take on. I hope that we will find more to say about this as we consider the issues more deeply. For now, we can offer the limited observation that in order to preserve

opportunities for human beings to live well in the future, humanity must live in ways that have far less environmental impact, and limiting our environmental impact will be conducive to the members of at least some other species having greater opportunity to live well.

There is a political aspect to our approach, as well. In the United States, we used to have cooperation on environmental matters across the political spectrum. And then our politics degenerated into attacks on environmentalism as always favoring government control over free markets and favoring other species over human well-being. We were very sensitive to such attempts to discredit and marginalize environmental protection, and we thought it would be beneficial to focus our book on overcoming the misguided wedge that is so often driven between environmental preservation and human well-being.

Child-focused education in sustainability

OK: Education has a prominent position in this book. How do you justify this priority?

RC: If we ask, “What are the really important ways in which we need to understand the world we are living in?”, it seems to me that sustainability will have to be pretty high on the list. If you are making decisions oblivious to the sustainability facts of life, the lack of this knowledge and understanding of the world can obviously be extremely consequential.

I want to say that the practical needs of life are a key criterion in determining what forms of knowledge and understanding educational institutions need to develop in students. The question for me is not, “How many children need to learn physics so we will have enough engineers for building aircraft or missiles?” That would be an approach to education that is focused on societal needs, perhaps, or military needs, but it would not be focused on what children need. So, what we propose in the book is a conception of public educational responsibilities that is child-focused. What the institutions owe children is to enable them to develop in ways that are conducive to them living well. Now, the way I understand living well involves living in a way that is both admirable and is personally rewarding or satisfying. In order to live well, people will have to live in ways that are responsible, productive, and admirable within the context of the society. So, any educational theory that is any good will have to reconcile educating the child for themselves with educating the child for the society or for the world. We took seriously the objections to the language of education *for* sustainability, because that seems to treat children’s development as purely instrumental to achieving sustainability. The substance of the education we propose makes it an education *in* sustainability, while its goal—like the goal of all good education, as we conceive it—is to promote forms of development that are conducive to living well in the actual world.

OK: And that is the choice you have made in the book—changing UNESCO’s preposition from “education *for*” to “education *in*”?

RC: Yes, it doesn’t mean it is only for the child, it doesn’t mean it is not for society. We let the word *in* signify the kind of learning we are talking about. The larger background theory of education is child-focused. You are not educating someone unless you are promoting forms of personal development that you have reasons to think are good *for* the learner.

The theory of education I have developed holds that there are three basic forms of human potential, which I refer to as *intellectual*, *social*, and *creative* or *productive*. Fulfilling these forms of potential well requires education that promotes the development of *virtues*, including intellectual and social virtues, *capabilities* to do many different things, and *understanding* of various aspects of the world. So, those are the three general spheres of personal development that education should promote. The psychological research on human motivation and well-being that I rely on shows that there are three basic psychological needs that are associated with fulfilling these forms of potential well, and that the satisfaction of all three of these needs is important to happiness or feeling pleasure and satisfaction in the activities of our lives. This research has important implications for how we understand the work of schools and how schools can enable students to satisfy their needs for competence, self-determination, and positive social connection. This is important to sustaining their learning, their sense of progress in their lives, and their preparation for a bright future, even as they learn things about the state of the world and challenges we face that could be very discouraging.

Climate change and the current American administration

OK: We are reaching the end now, but I would like to touch upon the political situation in the US at the moment. You are, as a nation, withdrawing from the Paris Agreement?

RC: Trump has announced that he intends to do that, yes.

OK: The current administration is in several ways communicating a fundamental doubt regarding anthropogenic climate change. That is a conspicuous situation when talking about conditions for sustainability ethics and sustainability education. What impact does this situation have on the research field we are talking about here?

RC: It is very difficult. There are many words I could use, like *horrifying*. The Trump administration has moved very aggressively to try to roll back the various steps that the Obama administration took to actually implement the US commitment under the Paris Accord.

Regardless of whether the US officially remains a party to the Paris Agreement, the Trump administration has engaged in a very systematic nullifying of the steps that had been taken to reduce US emissions. That is of utmost concern to many of us. The majority of Americans now accept that climate change is happening, that it is harmful, and that it is mostly caused by us. So Trump is out of step with the majority of Americans, and I think that there will be a political correction at some point. It is just hard to know how long it will take, and how much damage will be done in the meantime.

So, I think of course it is a profoundly misguided, foolish thing that the Trump administration has been doing with regard to climate, energy, and the environment. If it were the only thing, I think we would have seen more focused pushback. But unfortunately, there is a creation of so much noise and chaos within a single week—so many shifts and alarming things—that it is hard to focus on climate and just stay focused on that for very long with

this administration. So I hope that the rest of the world will continue to make progress on climate, and that the US will be back on board before too long. This is not happening because of where the American public is, but because of fossil fuel interests and votes in a few key swing states. The number of jobs that are at stake in the coal industry is miniscule and there are vastly more jobs in renewable energy. Many of the latter are threatened by Trump's policies. So, what we are seeing is a very narrow political targeting of fossil fuels swing states, and disinformation campaigns that are massively funded by elements of the fossil fuel industry. The anti-establishment Tea Party is itself largely funded by the fossil fuel industry. So that is the politics of it. Was there more to your question?

OK: No, thank you very much for this conversation!

RC: Thank you!

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