1 **Education for Sustainable Development (ESD) as if environment really mattered.**

2

3 **Abstract**

4 This article discusses the possibility of integrating deep ecology (DE) and animal rights (AR)

5 perspectives within environmental education (EE) and education for sustainable development (ESD).

6 The focus of this article is on three questions: Why are DE and AR not currently central to EE/ESD

7 debates? What is the probability that DE and AR will be central within EE/ESD? What can be gained

8 if they were? Different ethical frameworks in relation to non-humans are examined. Both non-

9 consequentialist and utilitarian approaches suggest that DE and AR could be linked to the conception

10 of underlying duty as well as consideration of utilitarian value. From cultural relativism and

11 subjectivism perspectives, DE and AR *could* be central to EE, but this possibility is contingent on

12 socio-political and cultural context within which educational practices are embedded.

15

16 **1. Introduction**

17

18 It is estimated that the current species extinction rate is between 1,000 and 10,000 times higher

19 than it would naturally be. The main drivers of this loss are converting natural areas to farming

20 and urban development, introducing invasive alien species, polluting or over-exploiting resources

21 including water and soils and harvesting wild plants and animals at unsustainable levels (IUCN

22 2014).

23

24 There are many testimonials to increased global environmental concerns, particularly related to

25 issues related to human security, welfare, and health, such as climate change or pollution. There is

26 also increased ethical concern about species of or individual animals or plants, there is no

27 consistent discussion about *the scale* of instrumental use of other species, either through direct or

28 indirect actions. This scale has increased exponentially with human population growth and an

29 increase in consumption and a simultaneously growing disregard for non-human species (Crist

30 2012). While human rights are widely accepted, concern with the rights of species not

31 instrumental to human ends is marginalized.

32 While the fate of a single slaughtered giraffe in the zoo may capture public attention through the

33 media (http://en.wikipedia.org/wiki/Marius_%28giraffe%29), there is no consistent discussion about

34 billions of farm animals used daily for consumption, or medical experiments. This aspect of

35 consumption is rarely discussed in ESD (Kopnina 2013c; Kopnina and Meijers 2014). While some

36 environmental non-governmental organizations (ENGO's) and concerned individuals express concern

37 about the negative effect of economic development on biodiversity, habitat loss with associated rapid

38 loss of biodiversity continues unabated. The framing of 'nature' as a 'natural resource' has become

39 prominent in international political rhetoric and reflected in environmental education (EE) and

40 education for sustainable development (ESD).

41 **1.1. Material and methods**

42 This article is based on desk research concentrating on deep ecology (DE) and animal rights (AR)

43 perspectives. This article will focus on three questions: Why are DE and AR not currently central to

44 EE/ESD debates? What is the probability that DE and AR will be central within EE/ESD? What can

45 be gained if they were? In order to answer these questions, we will turn to ethics since the inclusion of

46 varying moral outlooks was recommended by several EE/ESD scholars (e.g. Jickling 2005a; Jickling

47 and Wals 2008; Öhman and Östman 2008; Payne 2010a; 2010b; Wals 2010; Kronlid and Öhman

48 2013, etc.).

49

50 **2. Theory/calculation**

51 **2.1. Deep ecology, animal rights, and pluralism**

52 Within environmental ethics literature, there is a division between adherents of anthropocentric and

53 ecocentric paradigms (e.g. Naess 1973; Goodpaster 1978; Rolston 1985; Taylor 1986; Callicott 1989;

54 Merchant 1992; Crist 2012) and proponents of continuity between the two views (e.g. Latour 2004;

55 Ingold 2006). An extended discussion about nature or animal rights involves debates about the rights

56 should be granted to individuals within the species (Regan 1985), or the entire species (Taylor 1991),

57 or even ecosystems (Singer 1975). It was noted that the inclusion of the whole of nature generates

58 conflicts with the protection of individual animals which is central to the animal ethics literature (e.g.

59 Callicott 1980 and 1988; Regan 1985; Jamieson 1997; Garner 2015).

60 Ecocentric or biocentric ethics authors, variously termed deep ecology, or dark green ecology

61 adherents, argue that much of what passes for environmentalism, is anthropocentric in nature,

62 condemning animals to be the servants of human interests, and argue for the inclusion of the entire

63 ecosystems into the moral realm. Both DA and AR are inspired by philosophical underpinnings of
64 Henry David Thoreau, Aldo Leopold, Arno Naess, and Peter Singer. Some of DE and AR philosophy
65 is said to have inspired the 'radical' environmental movements (Switzer 2003; Sunstein and Nussbaum
66 2004; Scarce 2005; Taylor 2008). DE and AR are largely based on a solid common ground of trying
67 to defend the place of nature or animals and – to varying degrees – nature's value and associated
68 rights - in relation to humans. While the range between DE and AR perspective is wide, many authors
69 have argued for a reconciliation of divergent views for the sake of mutual strengthening of the fields
70 that typically place the interests of non-human species at the forefront of moral agendas (e.g. Callicott
71 1988; Kahn 2010; Shoreman-Ouimet and Kopnina 2011). The cohesiveness of these two perspectives
72 lies in the shared 'love of nature' or its individual elements (Milton 2002). This position can be
73 characterized by and the assumption that individual nonhuman entities or even ecosystems have
74 intrinsic value beyond their instrumental value (e.g. Rolston 1985; Taylor 1986; Callicott 1989;
75 Drengson 1991; Plumwood 1999; Postma 2002). In education, this position is often associated with
76 education for deep ecology, concern with ecological justice (Bonnett 2007; Payne 2010a) and the
77 'naturalist current' in EE (Sauvé 2005).

78 By contrast, the position variously termed pluralism, weak anthropocentrism or pragmatic
79 environmentalism states that there are a variety of ethical positions in regard to the environment some
80 of them mutually conflicting. As Weston (1992:323) has argued, 'rather than trying to unify or fine-
81 tune our theories, we require more pluralistic and exploratory methods'. For environmental
82 pragmatists, the sustained practice of social reconstruction—experimental, improvisatory, and
83 pluralistic—is the most central ethical practice of all. In that view, DE and AR perspectives are seen
84 as non-democratic and monistic (Norton 1995; Light 1996; Hui 2014).

85   Unlike deep ecologists, environmental pragmatists argue that it is impossible for humans to relate to
86   nature other than through our anthropocentric perception and that environmental activists should take
87   a plurality of ethical positions into account. Among the plurality of ethical perspectives presently
88   advocated within EE and ESD (e.g. Læssøe and Öhman 2010; Kronlid and Öhman 2013),
89   perspectives defending the intrinsic value of nature (or animals) are perceived at best 'as good as
90   others'. At worst DE and AR are completely overshadowed by the dominant anthropocentric
91   perspectives that render nature and animals nothing more than natural resources and ecosystem
92   services in the human quest for sustainable development. Ethical issues in EE/ESD include decisions
93   on how competing versions of human needs are to be judged, what is to be the basis for a moral
94   responsibility towards future generations, and what the rights and responsibilities of humankind are
95   towards the rest of nature (Bonnett 2013).

96   Sustainable development rhetoric is very much based on the taken for granted assumption that saving
97   every human life is a moral imperative (e.g. the medical care should be available to all); that material
98   wealth should be divided fairly (e.g. poverty needs to be eradicated); that women and men have equal
99   rights, that members of different races and ethnic groups have equal rights, that democracy is
100   paramount to a fair political process, etc. Most of the readers of this journal will be probably in broad
101   agreement about the 'goodness' of these moral positions.

102   Yet, these 'indisputably good things' were not necessarily taken for granted a hundred years ago.
103   Even in the most 'enlightened', 'advanced', or 'civilized' societies (let alone the ones that used to be
104   known at the time as 'primitive cultures', or 'savage tribes', or presently 'developing' countries), the
105   universality of these 'goods' is questionable.

106   Not so long ago, the idea that *all* human lives *everywhere* are worth saving would have been
107   unthinkable. Have we morally evolved to the point (or to use a more popular term, have we
108   *developed*) or reached a certain progressive moral plateau, an apogee of what the 'true morality'
109   should be? If so, is it possible to reach an even higher moral level and recognize the equality and
110   rights of non-human species?

111   Below we will offer an array of simplified ethical positions from which we can view today's and
112   reflect upon the possibility of integrating DE and AR perspectives into EE/ESD. Due to the limited
113   scope of this article, the summaries of ethical traditions below are broad sketches, based on central
114   features of the arguments, rather than nuanced representations.

115   **2.2. Cultural relativism**

116 Within this position, the 'good things' are far from universal. According to the moral relativism

117 standpoint, propagated by anthropologists since the end of nineteenth and beginning of the twentieth

118 century (e.g. V. Turner, B. Malinowski, and M. Mead), what is right or wrong can vary cross-

119 culturally as well as temporarily. Anthropological as well as historical evidence points out, for

120 example, that there are practically no exceptions to human societies where *all* human life was

121 (equally) valued. Nor was there a single society where members of different ethnic groups, tribes, or

122 geographic areas were seen as equally worthy than others. By implication, the acceptance of 'moral

123 goods' such as 'every human life is sacred' is time and culture-specific.

124 Pluralism embraces multiple ethical positions without attempting to impose any fixed 'truths'.

125 By the same token, we may wonder whether teaching support for what is currently seen as a 'radical' -

126 or in the United States 'terrorist'- practice of Animal Liberation Front (ALF) activists, or the Earth

127 Liberation Front (ELF) movement can be tolerated in educational institutions which are respectful of

128 cultural relativism. From cultural relativism perspective, we can deduce that DA and AR perspectives

129 are better or worse than others. However, considering the fact that all moral conventions are culturally

130 variable, at one point in history the actions of ALF or ELF activists could be labeled as heroic (Curry

131 2011).

132 Recognizing the rights of other species however will never be the apogee of human moral

133 development, just as the abolition of slavery or the celebration of every human life could be reversed

134 sometime in the future. Our present moral underpinnings of EE/ESD are not set in stone and are likely

135 to change in the course of history.

136 **2.3. Moral subjectivism**

137 Subjectivism experienced through emotions, translated into educational practice refers to 'learning by

138 experience'. In order to enhance appreciation of nature and animals children should be encouraged to

139 express and communicate their experiences, ideas and emotions in and about the environment (e.g.

140 Louv 2005; Tsevreni 2011; Bonnett 2013).

141

142 Subjectivism celebrates the diversity of intellectual and ideological positions. The position of moral

143 subjectivism can be discerned in Wals' (2010) call for transformative social learning including space

144 for alternative paths of development, space for new ways of thinking, valuing and doing, for

145 participation minimally distorted by power relations, for pluralism, diversity and minority

146 perspectives, but also for respectful disagreement and differences space for counter-hegemonic

147 thinking, for self-determination, and, finally, space for contextual differences.

148 Subjectivism dictates caution in using environmental advocacy in education. In *Education and*

149 *Advocacy: A Troubling Relationship*, Jickling (2005a) asks: 'How does a person work on behalf of

150 what he or she cares about – but in an educational way? Can you? If you remove care from the

151 equation can you really have an educational experience? Or, if you want people to care – about each

152 other, the environment, ideas, and noble action – can education play a legitimate role?' (Jickling

153 2005a:91).

154 In Jickling's concern for advocating his support for the wolves, Jickling reflected that he faced the

155 class of pupils, some of whom had parents who supported a wolf kill program. Another source of

156 doubt was the question: 'How can we ensure that educational programs provide a sufficient breadth of

157 alternatives for learners to ponder, and use to construct meaning in the face of important

158 decisions?'(p. 93).

159

160 Jickling reflects that educationist's responsibility was served by open advocacy of those who spoke on

161 behalf of wolves: 'If education enables social critique, reveals hidden assumptions for public

162 discussion, and disrupts the status quo, then citizens who spoke on behalf of wolves certainly did that.

163 There was a vigorous public debate. And many community members gained confidence in their non-

164 conformist positions… This too has educational merit' (P. 109).

165

166 It is also clear that Jickling sees advocacy as serving the goal of education, not another way around:

167

168 In the end, our job is to tell good stories and to live good stories. In my own story, the
169 politically charged atmosphere of the Yukon wolf kill demanded that more attention be placed
170 on educational integrity. It was important that my public agenda did not pre-empt educational
171 opportunities, that my students had the intellectual space to think about their own values and
172 to disagree, if they wished, with the positions that I have publicly declared (p. 110).
173

174 And what about the wolves? In subjectivism, as in the case of cultural relativism, DE and AR

175 perspectives are likely to remain a tool for advancing open and democratic learning, without moral

176 claim upon why these positions should be privileged over others.

177

178 However, in his influential article *Why I Don't Want my Children to be Educated for Sustainable*
179 *Development: Sustainable Belief*, Jickling (1992) does mention the fact that in the case of ESD, he
180 wants his children to recognize some positions may have greater or lesser merit:

182   I want them [my children] to realize that there is a debate going on between a variety of stances,
183   between adherents of an ecocentric worldview and those who adhere to an anthropocentric
184   worldview. I want my children to be able to participate intelligently in that debate. To do so they
185   will need to be taught that these various positions also constitute logical arguments of greater or
186   less merit, and they will need to be taught to use philosophical techniques to aid their
187   understanding and evaluation of them. They will need to be well educated to do this.

189 I fully agree with this position on education. In this article, however, I want to emphasize that the
190 criteria for attributing merit to one of the other position should take into consideration not only various
191 ethical positions but also the realization of power hegemonies that shape these dominant ethic
192 positions.

2.4. Domination of power

195 Critical scholars brought into doubt the idea that culturally specific or subjective ethics are
196 independent of structural constraints and dominant ideologies. Both cultural relativism and
197 subjectivism say little about the power of one group over another or the 'tyranny of the majority' in
198 which one opinion is privileged over another just because one group is more numerous or structurally
199 powerful than another. Arendt (1968; 1998), much of whose work was concerned with the nature of
200 power, warned that technocratic discourses can work to alienate individuals from their own everyday
201 experiences, creating perfect conditions for authoritarian solutions. These solutions are disguised by
202 mainstream discourse that presents certain views and solutions as moral imperatives. Arendt inspired
203 eco-pedagogy which prompts people to be responsible for and accountable to all of the 'other others',
204 both human and non-human entities (Kahn 2010).

206 To give a simplified example, if most people on this planet happen to be anthropocentrically oriented
207 (which is plausible, as any species is conceivably self-oriented), the democratically chosen political
208 assemblies are not likely to make DE or AR their priority. It might be also the case that while the
209 majority of people might be 'by nature' (if one believes in such a thing as human nature) inclined to
210 be mildly ecocentric, the dominant political and corporate elites, with their not so well-hidden agenda
211 of commodifying nature, might be able to establish the human supremacy over 'natural resources' as
212 the most normative and morally neutral concept.

Such underlying ideology translates 'nature' into 'natural resources' with moral concern about the future generations of exclusively humans through the dominant sustainable development rhetoric (WCED 1987). Having a large human population is celebrated by the economists as large population promises provisions for pensioners in the greying society, as well as new markets in developing countries, and neoliberal dream of endless economic growth (The Economist 2012). The powerful elites may consciously manipulate the ethical discussion into the politics of exclusion in which only human lives and welfare are recognized as the moral right.

Strang (2013) notes that we manifest the beliefs and values that we promote. If we compose a worldview in which human needs and interests are prioritized, we will act accordingly, invariably giving insufficient weight to the needs of the non-human. In this context the answer to the question 'Why are DE and AR perspectives not central to EE/ESD debates?' becomes because the power holders' anthropocentric ideology of neoliberalism and economic growth has been internalized by the majority of EE/ESD researchers and practitioners (Crossley and Watson 2003).

2.5. Non-consequentialism

Two types of non-consequentialist approaches to morality can be distinguished: that propagated by in some religious traditions, and the "respect for persons" Kantian philosophy. The categorical imperative concept refers to the way in which one determines what one's duties are, dictating what is right and wrong since it is an imperative, a duty, a command. Following Kant, we only have a duty to treat rational moral agents as ends, not animals who lack the ability to judge and thus are not part of the moral community. Kant reflected that we should strive to treat animals well, but not because we owe them any direct moral duty but because in refraining from animal cruelty, we cultivate good behavior towards ourselves. We can find similar undertones in religions. Bron Taylor (2010) reflected that both past and 'new' religions (such as nature spirituality) may offer both hope and reason to despair as to the future of DE and AR to be part of our categorical values. The study of the grassroots resistance movements, such as Earth First! show similarities with both Judeo-Christian and non-Western religions (Taylor 1991). In Jickling's reflection on religion and education, he draws on his First Nations colleague Louise Profeit-Leblanc who said that religious ethics is about doing that which 'enobles' us. She asks, 'What makes us noble?. . . What do I do every day to prepare myself to become the creature which the Creator wants me to be?' (in Jickling 2005b:22).

245 The most important point in regard to non-consequentialism and DE and AR can be summarized as a
246 moral imperative to protect nature and animals – simply because it is a duty. An imperative to protect
247 and preserve non-humans can thus stem from human reason, or love, or sense of duty and
248 responsibility. In this way, Rolston (2015) formulated this imperative very clearly: The ultimate unit
249 of moral concern is the ultimate survival unit: this wonderland biosphere.

251 Presently, however, categorical imperatives are presently 'out of fashion' in EE/ESD research. Instead
252 of talking about absolute morals and duties, educational researchers have warned about the normative
253 dangers of EE/ESD, the risk of indoctrination, totalitarianism, and authoritative tendencies and above
254 all called for enhancement of pluralism, democratic or open education (e.g. Jickling 2005 and 2009;
255 Wals 2010; Öhman and Östman 2008). The fear of indoctrination of environmentalist advocacy in EE
256 is expressed by Wals and Jickling (2002:225):

258 If we juxtapose more instrumental views of ``education for sustainability'' with more
259 emancipatory views of ``education for sustainability'' we can imagine, on the one hand, an
260 ``eco-totalitarian'' regime that through law and order, rewards and punishment, and
261 conditioning of behavior can create a society that is quite sustainable according to some more
262 ecological criteria. Of course, we can wonder whether the people living within such an ``eco-
263 totalitarian'' regime are happy or whether their regime is just, but they do live ``sustainably''
264 and so will their children. We might also wonder if this is the only, or best, the
265 conceptualization of sustainability.

267 Although as humans we cannot know what makes non-human animals 'happy', we may be too easily
268 brushing aside the very consideration of whether abandoning sustainability efforts is fair to those who
269 cannot speak for themselves. In rendering of non-human world as 'natural resources' (Crist 2012)
270 entailing habitat destruction, extinction of species, and intensive animal farming (CAFOs) that present
271 the current model of economic development, arguing for abandoning efforts of sustainability through
272 education can simply mean resigning to the existing power hegemonies (Kopnina 2012; 2013a). As
273 Cherniak has argued, 'If we want to achieve a sustainable future, we cannot rely on a deliberative
274 democratic education. There is no guarantee that within the classroom, green values will triumph'
275 (2012:30).

277 Ironically, many EE/ESD scholars seem to take for granted moral imperatives such as 'respect for all
278 races' or 'gender equality'. How would proponents of pluralism in education react to the proposition
279 that the members of some ethnic minorities are instrumentally 'useless', or that the poor should be left
280 to their own devices since the rich are more 'fit' to survive in this world, or that it is 'natural' for

281   women to be subservient to men, or that human population has to be controlled so that other species

282   can be, to use Jickling and Wals' expression, be more 'happy'?

283   Such proclamations will deserve the label of 'social Darwinism' at best, and educators bringing doubt

284   to human supremacy would be probably fired from their teaching positions. Racism, fascism, slavery,

285   eugenics and other challenges to conventional morality are simply unacceptable in polite academic

286   society. Jickling (1992) reflects 'education is concerned with enabling people to think for themselves.

287   Education for sustainable development, education for deep ecology (Drengson 1991), or education

288   "for" anything else is inconsistent with that criterion'. Yet, it is doubtful whether Jickling would argue

289   that his children need to be educated for positions that promote racism, sexism or other views seen as

290   'radical' or even 'criminal' in today's plural society. I think Jickling, like most other parents or EE

291   scholars, would probably prefer to have his children learn respect for other human beings, for their

292   lives, and their diversity. Why not teach them respect for the lives and diversity of non-humans?

293   It seems that inherent in sustainable development discourse is the anthropocentric bias (Kopnina 2014;

294   Kopnina and Meijers 2014). Crist (2012:150) re-examines sustainable developments' focus on the

295   quandary: What is the maximal number of people that the Earth can provide resources for without

296   severely degrading those resources for future human generations?

297   The question we should be asking instead is: How many people, and at what level of

298   consumption, can live on the Earth without turning the Earth into a human colony founded on

299   the genocide of its nonhuman indigenes? The latter is rarely posed because the genocide of

300   nonhumans is something about which the mainstream culture, including the political left,

301   observes silence. Academics largely follow suit, perhaps because they view raising an issue

302   about which silence is observed as a non sequitur.

303   In the current moral non-consequentialism approach discrimination against certain human groups is

304   seen as morally wrong. By contrast, arbitration in the case of non-humans is marginalized to the

305   minority perspective, perceived as both radical and undemocratic.

306

307   **2.6. Consequentialism: utilitarianism**

308   Utilitarianism holds that the context or consequence of one's conduct is the ultimate basis for any

309   judgment about the rightness of that conduct. Unlike non-consequentialism, this approach advocates

310   that it is not the moral principles that are set in stone but the outcomes of ethical decisions that matter.

311   The famous utilitarian maxim that actions are right in as far as they bring the greatest happiness to the

greatest number of people, articulated by Jeremy Bentham and John Stuart Mill, found a seat of morality based on feeling. Bentham (1965) has argued that we should not limit our ethical consideration to the interests of human beings alone, arguing that animals can experience pleasure and pain, and strive to avoid it, just as humans do, thus demanding that 'non-human animals' should be a serious object of moral concern. Since pain and pleasure 'govern us in all we do' (p.33) both humans and animals are driven by these twin forces of desire and avoidance and form the basis of ethical judgment on what is right or wrong. This discussion has led to twentieth-century environmental ethics debates as what should be considered the right actions in order to ensure that 'happiness' is justly distributed not only amongst a greater number of people, but also individual members of species or entire species.

The well-known example of utilitarian thinking is that propagated by many ENGOs and conventional environmentalist strategists that attempt to reconcile human-environment dualism. Proponents of continuity in human-nature relationships argue that humans and nature are ultimately interlinked, pointing out the Earth's intertwined destiny with the associated need to protect all of its creatures (Rolston 2015). Some natural scientists and economists (e.g. de Groot 2002) argue for high interdependency of all species and the importance of their preservation for human welfare. These scholars argued that 'all' biodiversity is needed in order to address human needs (e.g. Polasky et al 2012).

Yet, this perspective might not be enough to protect the 'useless' species. Empirically, it is clear that human-created ecosystems and monocultures can materially support the growing human population. Many species have already gone extinct without any indication of the collapse of human food production. Kareiva et al. (2011) and Marris (2011) have argued that we must give up our romantic notions of pristine wilderness and replace them with the concept of a global, garden planet managed by the rightful rulers of the Anthropocene, humans.

A similar case can be made for the limitations of utilitarian concerns about farm animals. In Western Europe, concerns about meat safety and expressed preference by a (small) group of 'responsible' consumers for biological meat often have more to do with consumer health awareness that considerations of animal welfare. While there is a small number of consumers concerned about animal welfare, neoliberal economies at large and the majority of price-conscious consumers do not address the scale of CAFO's – industrial production system in which animals' welfare is secondary to the efficiency and affordability of meat production. In this way, ESD threatens to abandon concerns about nature in favor of social and economic agendas (Kopnina 2013b and 2013d).

344   Within utilitarianism, DE and AR *could* be central to EE/ESD only if the greater utility – defined in

345   terms of 'happiness' for the majority of planetary citizens, then in purely 'useful' terms, is recognized.

346   Thus, utilitarianism alone cannot help establish the importance of protecting all species or caring

347   about farm animals beyond basic concerns about healthy meat.

348   What can be gained if DE and AR were integrated is the obvious freedom from suffering for the non-

349   humans? For humans, detachment, alienation, and loss of their 'natural roots' can be healed by

350   reintegrating humans within nature in a mutually beneficial relationship.

351

3. Discussion.

353   The logic and reason appear not to provide cogent grounds for thinking that humans are 'better' than

354   or superior to other animals and living things. Suppose humans are not provably better or more

355   entitled to the Earth's resources, then how should they relate to members of the other species?

356   In examining environmental ethics in connection with EE/ESD, we note that there are many

357   arguments as to why DE and AR perspectives should become central to EE/ESD. Within cultural

358   relativism and subjectivism, any ethical position might be acceptable, as long as they are culturally,

359   socially, or individually accepted. From cultural relativism and subjectivism perspectives, DE and AR

360   *could* be central to EE/ESD, but this possibility is fully contingent on socio-political and cultural

361   context. This, obviously, does not guarantee that DE and AR will be given priority or will not be

362   substituted by yet another dominant perspective in the future.

363   The non-consequentialism approach suggests that there might be a sense of duty, inherent right or

364   wrong. In this perspective, recognition of entitlement to a certain right can also imply a kind of

365   'progress' that more relativistic positions do not have. It might be argued that while at present we have

366   not (yet) recognized that DE and AR *are* indeed part of our core moral duty and obligation, sometime

367   they will be as we 'moving forward' to the moral summit in which all true values are progressively

368   achieved.

369   Returning to the 'power' argument, we may wonder how the dominant ideologies of neoliberal

370   industrial capitalism have succeeded in propagating the illusion that humans are superior, and that

371   moral right lies exclusively with our species. In this hegemony, anthropocentrism appears 'logical'

372   from the contextual perspective of capitalism, as the claim is taken to be universal – due to the global

373   spread of this ideology.

374 **4. Conclusion.**

375 Potentially, both non-consequentialist and utilitarian frameworks can be well suited for adapting DE
376 and AR as central perspectives in EE, as both instruct us that moral consideration of non-humans can
377 be both a question of underlying duty and responsibility (in as far as caring for non-humans can be
378 seen as a moral imperative) as well as of utilitarian value (in as far as humans – and non-humans – can
379 actually gain from mutually beneficial relationship with nature). Cultural relativism and subjectivism
380 might be too weak to overcome the domination of neoliberal industrialist ideology, both in broader
381 society and in education. We need a more robust theoretical and ethical framework that would
382 recognize the artificiality of dualism, reintegrate the human and non-human, and thus enable
383 reconciliation between the critical perspectives on the issues of social and ecological justice (Strang
384 2013). Perhaps it is neither innate morals, nor reason, but plain common decency that can instruct us
385 – educational theorists and practitioners – to consider non-humans as a worthy subject of moral
386 concern.

387 The main reason why DE and AR could – and indeed *should* be central to EE/ESD is that it will allow
388 us, students and educators, to share this planet to the benefit of the majority of the earth's citizens. By
389 privileging DE and AR as central perspectives we could go beyond the one-species-only 'pluralism'
390 and teach our students about the value of the true planetary democracy.

391

392 **Bibliography**

393

394 Arendt, H. 1968. *Between Past and Future*. New York, NY: Penguin Books.

395

396 Arendt, H. 1998. *The Human Condition*. Chicago: University of Chicago Press.

397

398 Bentham, J. 1965. *Principles of morals and Legislation*. In J.S. Mill, *Utlilitarianism*. Ed. By M.
399 Warnock. Fontana, London.

400

401 Bonnett, M. 2007. Environmental education and the issue of nature. *Journal of Curriculum Studies* 39
402 (6): 707–21.

403

404   Bonnett, M. 2013. Sustainable development, environmental education, and the significance of being in
405   place. *Curriculum Journal* 24(2): 250-271.
406

407   Callicott, J.B. 1980. Animal Liberation: A Triangular Affair. *Environmental Ethics* 2: 311-38.
408

409   Callicott, J.B. 1988. *Animal Liberation and Environmental Ethics: Back Together Again*.
410   http://digitalcommons.calpoly.edu/cgi/viewcontent.cgi?article=1703&context=bts
411

412   Callicott, J.B. 1989. *In defense of the land ethic: Essays in environmental philosophy*. New York, NY:
413   SUNY Press.
414

415   Cherniak, B. 2012. *Critiquing the Role of Deliberative Democracy in EE and ESD: The Case for*
416   *Effective Participation and Pragmatic Deliberation*. Uppsala University, Department of Earth
417   Sciences Master Thesis, Geotryckeriet.
418

419   Crist, E. 2012. Abundant Earth and Population. In P. Cafaro and E. Crist (Eds). *Life on the Brink:*
420   *Environmentalists Confront Overpopulation*. Atlanta: University of Georgia Press. (p. 141-153).
421

422   Crossley, M. and Watson, K. 2003. *Comparative and International Research in Education:*
423   *Globalisation, Context, and Difference*. London: Routledge Falmer.
424

425   Curry, M. 2011. *If A Tree Falls: A Story of The Earth Liberation Front*. Documentary film. Dogwood
426   production. http://www.imdb.com/title/tt1787725/
427

428   De Groot, R. 2002. A typology for the classification, description, and valuation of ecosystem
429   functions, goods, and services. *Ecological Economics*, 41 (3): 393-408.
430

431   Drengson, A. R. 1991. Introduction: Environmental crisis, education, and deep ecology. *The*
432   *Trumpeter*, 8 (3): 97-98.
433

434 The Economist. 2012. America's demographic squeeze: Double bind. Access online:
435 http://www.economist.com/news/united-states/21568398-falling-birth-rate-and-much-slower-
436 immigration-presage-long-term-trouble-ahead-double

437

438 Garner, R. 2015. Environmental Politics, Animal Rights and Ecological Justice. In *Sustainability: Key*
439 *issues*. Edited by H. Kopnina and E. Shoreman-Ouimet. New York: Routledge.

440

441 Goodpaster, K. 1978. On being morally considerable. In *Environmental philosophy: From animal*
442 *rights to radical ecology*, ed. M. Zimmerman, 49–65. Englewood Cliffs, NJ: Prentice-Hall.

443 Jamieson, D. 1997. Animal Liberation Is An Environmental Ethic.
444 http://www.acad.carleton.edu/curricular/ENTS/faculty/dale/dale_animal.html

445 Jickling, B. 1994. Why I Don't Want my Children to be Educated for Sustainable Development:
446 Sustainable Belief. *The Trumpeter* 11(3) Available on-line at
447 http://trumpeter.athabascau.ca/index.php/trumpet/article/view/325/497

448 Jickling, B. 2005a. Education and advocacy: A Troubling Relationship. In E. A. Johnson & M.
449 Mappin (Eds.) *Education and advocacy: Changing Perspectives of Ecology and Education*, (pp.91-
450 113). Cambridge, UK: Cambridge University Press.

451 Jickling, B. 2005b. Ethics research in environmental education. *Southern African Journal of*
452 *Environmental Education*, 22:20-34.

453 Jickling, B. 2009. Environmental education research: to what ends? *Environmental Education*
454 *Research*, 15(2): 209 -216.

455 Jickling, B. and Wals, A. E. J. 2008. Globalization and environmental education: looking beyond
456 sustainable development' In *Journal of Curriculum Studies* 40(1): 1-21.

457 Hui, K. 2014. Moral Anthropocentrism Is Unavoidable. *American Journal of Bioethics* 14 (2):25-25.

458 Ingold, T. 2006. Against Human Nature: Evolutionary Epistemology, *Language and Culture*, 39 (3)
459 259-281.

460 IUCN. 2014. About the biodiversity crisis. https://www.iucn.org/what/biodiversity/ Accessed April 2,
461 2014

462 Kahn, R. 2010. *Critical Pedagogy, Ecoliteracy and Planetary Crisis: The Ecopedagogy Movement*.
463 New York: Peter Lang.

464 Kareiva, P., Lalasz, R. and M. Marvier. 2011. Conservation in the Anthropocene: Beyond Solitude
465 and Fragility. *Breakthrough Journal*. Fall, P. 27-29.

466   Kopnina, H. 2012. 'Education for Sustainable Development (ESD): The turn away from

467   'environment' in environmental education?' *Environmental Education Research*. 18 (5): 699-717.

468   Kopnina, H. 2013a Schooling the World: Exploring the critical course on sustainable development

469   through an anthropological lens. *International Journal of Educational Research*. 62: 220–228.

470   Kopnina, H. 2013b Forsaking Nature? Contesting 'Biodiversity' Through Competing Discourses of

471   Sustainability. *Journal of Education for Sustainable Development*. 7(1):47–59.

472   Kopnina, H. 2013c An Exploratory Case Study of Dutch Children's Attitudes towards Consumption:

473   Implications for Environmental Education. *The Journal of Environmental Education*. 44(2): 128-144.

474   Kopnina, H. 2013d Evaluating Education for Sustainable Development (ESD): Using Ecocentric and

475   Anthropocentric Attitudes toward the Sustainable Development (EAATSD) scale. *Environment,*

476   *Development and Sustainability.* 15 (3): 607-623.

477   Kopnina, H. 2014. Revisiting the "trans-human" Gestalt: Discussing 'Nature' and 'Development' with

478   Students of Sustainable Business. *Journal of Education for Sustainable Development*, 8(1): 1–21.

479   Kopnina, H. and Meijers, F. 2014. 'Education for sustainable development (ESD): exploring

480   theoretical and practical challenges'. *International Journal of Sustainability in Higher Education*.

481   15(2):188-207.

482   Kronlid, D. O. & Öhman, J. 2013. An environmental ethical conceptual framework for research on

483   sustainability and environmental education, *Environmental Education Research*, 19(1): 21-44.

484

485   Læssøe, J. and Öhman, J. 2010. Learning as democratic action and communication: framing Danish

486   and Swedish environmental and sustainability education, *Environmental Education Research* 16 (1):

487   1-7.

488   Latour, B. 2004. *Politics of Nature: How to bring the sciences into democracy*. Cambridge, MA:

489   Harvard University Press.

490   Light, A. 1996. Environmental pragmatism as philosophy or metaphilosophy? In Environmental

491   pragmatism, ed. A. Light and E. Katz, (pp. 325–38). New York, NY: Routledge.

492

493   Lo, N. Y. S. Lo and Brennan, A. 2014. Biodiversity. In *The Handbook of Global Ethics*.

494

Louv, R. 2005. *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*. Chapel Hill, NC: Algonquin Books.

Marris, E. 2011. *Rambunctious Garden: Saving Nature in a Post-Wild World*. London, New York: Bloomsbury Publishing.

Merchant, C. 1992. *Radical ecology: The search for a liveable world*. London: Routledge.

Milton, K. 2002. *Loving Nature: Toward an ecology of emotion*. New York: Routledge.

Naess, A. 1973. The shallow and the deep: long-range ecology movement. A summary, *Inquiry,* 16:95–99.

Norton, B.G. 1995. Why I am not a nonanthropocentrist: Callicott and the failure of monistic inherentism. *Environmental Ethics* 17 (4): 341–58.

Öhman, J., and L. Östman. 2008. Clarifying the ethical tendency in education for sustainable development practice: A Wittgenstein-inspired approach. *Canadian Journal of Environmental Education* 13(1): 57–72.

Payne, P. G. 2010a. The globally great moral challenge: Ecocentric democracy, values, morals and meaning. *Environmental Education Research* 16 (1): 153–71.

Payne, P. G. 2010b. Moral spaces, the struggle for an intergenerational environmental ethics and the social ecology of families: an 'other' form of environmental education, *Environmental Education Research*, 16(2): 209-231.

Plumwood, V. 1999. Paths beyond human-centeredness: Lessons from liberation struggles. In *An invitation to environmental philosophy*, ed. A. Weston, 69–106. New York, NY: Oxford University Press.

Polasky, S. Johnson, K., Keeler, B., Kovacs, K., Nelson, E., Pennington, D., Plantinga, A. J. and Withey, J. 2012. Are investments to promote biodiversity conservation and ecosystem services aligned? *Oxford Review of Economic Policy*, 28 (1): 139–163.

527   Postma, D.W. 2002. Taking the future seriously: On the inadequacies of the framework of
528   liberalism for environmental education. *Journal of Philosophy of Education* 36 (1): 41–56.
529

530   Rolston, H.III 1985. Duties to endangered species. *BioScience* 35: 718–26.

531   Rolston, H. III. 2015. Environmental Ethics for Tomorrow: Sustaining the Biosphere. In
532   *Sustainability: Key issues*. Edited by H. Kopnina and E. Shoreman-Ouimet. New York: Routledge
533   Earthscan.

534   Regan, T. 1985. *The Case for Animal Rights* (Berkeley: University of California Press, 1983) pp. 362-
535   363.Sauvé, L. 2005. Environmental Education and Sustainable Development: A Further Appraisal,
536   *Canadian Journal of Environmental Education*, 1: 7-24.

537   Scarce, R. 2005. *EcoWarriors*: *Understanding the Radical Environmental Movement*. Walnut Creek,
538   California: Left Coast Press.

539   Shoreman-Ouimet, E. and Kopnina, H. 2011. 'Introduction: Environmental Anthropology Yesterday
540   and Today'. Pp. 1-35. In *Environmental Anthropology Today*. Eds. H. Kopnina and E. Shoreman-
541   Ouimet, New York and Oxford: Routledge.

542   Singer, P. 1975. *Animal Liberation: A New Ethics for our Treatment of Animals*, New York: New
543   York review/Random House.

544   Strang, V. 2013. Notes for plenary debate. World Anthropology Congress. ASA-IUAES conference,
545   Manchester, 5-10TH August 2013. Motion: 'Justice for people must come before justice for the
546   environment'. http://www.youtube.com/watch?v=oldnYTYMx-k

547   Sunstein, C. R. and Nussbaum, M. C. 2004. *Animal Rights: Current Debates and New Directions*.
548   New York: Oxford University Press.

549   Switzer, J. V. 2003. *Environmental Activism*. Santa Barbara, CA: ABC-CLIO.

550   Taylor, B. R. 1991. "The Religion and Politics of EarthFirst!" *Ecologist* 21 (6): 259.
551

552   Taylor, B. R. 2008. The Tributaries of Radical Environmentalism. *Journal for the Study of*
553   *Radicalism*, 2(1):-61.
554

555   Taylor, B. R. 2010. *Dark Green Religion: Nature Spirituality and the Planetary Future*. Oakland:
556   University of California Press.

557

558   Taylor, P.W. 1986. *Respect for nature: A theory of environmental ethics*. Princeton, NJ: Princeton
559   University Press.

560

561   Tsevreni, I. 2011. Towards an environmental education without scientific knowledge: an attempt to
562   create an action model based on children's experiences, emotions and perceptions about their
563   environment, *Environmental Education Research*, 17(1): 53-67.

564

565   Wals, A. E. J. 2010. Between knowing what is right and knowing that is it wrong to tell others what is
566   right: on relativism, uncertainty and democracy in environmental and sustainability education,
567   *Environmental Education Research*, 16(1): 143-151.

568   Wals, A. E.J. and Jickling, B. 2002. "Sustainability" in higher education: From doublethink and
569   newspeak to critical thinking and meaningful learning, *International Journal of Sustainability in*
570   *Higher Education*, 3(3): 221 – 232.

571   Weston, A. 1992. Before Environmental Ethics, *Environmental Ethics* 14 : 323-340.

572   WCED (World Commission on Environment and Development). 1987. *Our Common Future*. Oxford:
573   Oxford University Press.

574

575

576