ECOLOGICALLY MINDED TEACHERS AND CHARACTER EDUCATION

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Character education and environmental/ecological education (EEE) are not often discussed in the same circles of discourse. While the former focuses on ways to "motivate and enable [students] to act in ethical, democratic, and socially effective and productive ways" (Berkowitz et al., 2012, p. 72), the latter has, in practice, emphasized scientific and social knowledge about biotic communities. However, in our recent studies of EEE, several teachers have identified the exploration and enactment of values as pertinent to EEE, with some even naming character education as a potentially helpful framework. These assertions led us to further consider whether and how character education and EEE might share conceptual terrain, with an eye toward what this might mean for teachers as educational leaders.

In this work, we provide an overview of environmental/ecological education, and introduce the framework of ecological mindedness. We then consider the conceptual crossover of ecological mindedness with character education, highlighting the ground the two approaches share. This is corroborated and complicated by our discourse with educators, their perceptions of ecological mindedness as character education, and the ways in which their ecological beliefs inform their practice. Finally we offer a few next steps for these lines of inquiry, noting the potential of exercising a degree of transdisciplinarity on this front to improve both character education and environmental/ecological education.

ENVIRONMENTAL AND ECOLOGICAL EDUCATION

Environmental education was originally defined as:

> the process of recognizing values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the interrelatedness among man, his culture, and his biophysical surroundings. Environmental education also entails practice in decision making and self-formulation of a code of behavior about issues concerning environmental quality. (International Union for Conservation of Nature, 1970, p. 8)

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Over 50 years later, concerns of environmental quality have only grown. Recent reports from the United Nations (Intergovernmental Panel on Climate Change, 2018) and the United States (U.S. Global Change Research Program, 2018) make it clear that climate change will cause significant economic, health, infrastructural, social, and agricultural consequences. And while international organizations, corporations, and governments must tackle these issues, environmental education, as a movement and practice, will also become more important and central to schooling (Orr, 2016).

One take on environmental education is ecological education, which focuses on the relationship of various factors and actors within a shared system with "an emphasis on the inescapable embeddedness of human beings in natural systems" (Smith & Williams, 1999, p. 3). Whereas environmental education programs often focus on the study of nature, the development of scientific knowledge, and learning *about* the environment, ecological education focuses on human relationships with the natural world, exploring how individuals and communities interact with places and their inhabitants, often through a humanities-based approach. Here, we use the term EEE to refer to all aspects of earth-inclusive education.

Since 2007, we have been interested in the work of ecologically minded teachers, defined as educators who hold strong ecological beliefs that influence their teaching practices in myriad ways. Although they may not identify as environmental educators, ecological perspectives inform the work of ecologically minded teachers through the examples they use, the stories they tell, and even the vocabulary they employ. Moroye (2009) offered that this *complementary curriculum*, or the "embedded and often unconscious expression of a teacher's beliefs" (p. 792) that may emerge in various classroom methods and curricula, allowed these teachers to infuse their practice with their beliefs, regardless of the subject area.

Further, through observing this complementary perspective of ecologically minded teachers, we have found that they cultivate a sense of care, interconnectedness, and integrity in their students and classrooms (see McConnell Moroye & Ingman, 2017; Moroye, 2009; Moroye & Ingman, 2013). Rather than focusing on explicitly "green" topics, such as environmental literacy or environmental science, the teachers we have studied across a variety of subject areas and grade levels imbue their practice with a sense of connectedness and social justice (Moroye, 2009, 2010). To date, this body of work has sought to understand the qualities of ecological mindedness, how such qualities interact and matriculate in the practice of teaching, and how ecological mindedness and ecologically minded teaching can lead toward educative experiences in the Deweyan sense—toward growth (see McConnell Moroye & Ingman, 2017; Moroye & Ingman, 2013). In short, we are interested in educational practices that are both good for the environment and good for education.[1]

ECOLOGICAL MINDEDNESS

An important framework that has emerged through these efforts (which has subsequently been applied and expanded upon (see McConnell Moroye & Ingman, 2017)) is ecological mindedness. Ecological mindedness is "a habit of mind comprised of, and developed through, three qualities: ecological care, interconnectedness, and ecological integrity" (Moroye & Ingman, 2013, p. 589). These three qualities (or themes) are supported in both the literature of ecological education and the practice of ecologically minded teachers. *Ecological care* is the care for others, self, animals, plants, strangers, distant others, and the earth/environment. *Interconnectedness* denotes an acknowledgment of the eclectic relationships and connections among all things, often brought to the fore through experienced juxtaposition. *Ecological integrity* designates acting in accordance with one's beliefs as it pertains to eco-

logical considerations. Ecological mindedness, then, showcases habits of mind in which there is care for others, an acknowledgment of the connection to others, and action in accordance with those beliefs. These themes—which may be incorporated into curricula regardless of subject matter, grade level, or educational context—support ecological perspectives in the sense that they draw our attention toward the ways in which we relate to the world and its inhabitants. The themes can also foster educative experiences that are relevant for schools in terms of content, engagement, and students' lives, and are considered compatible with standards and other external mandates (McConnell Moroye & Ingman, 2017).

Although those versed in character education or virtue development may already identify connections between the themes of ecological mindedness and character education, these connections have not been meaningfully articulated in the literature of environmental/ecological education.

Further, it is unclear how teachers might interpret or articulate these connections. Therefore, in this work, we sought to explore the conceptual and practical crossovers of ecological mindedness with character education, including attention to lessons ecologically minded teachers have to offer the field of character education as actors of virtue development within systems of education.

ECOLOGICAL MINDEDNESS AND CHARACTER EDUCATION

Ecological mindedness works toward the same aims of environmental education: that others develop concern for and appropriate action toward a healthy planet. According to the Council for Environmental Education (1977), "[Environmental education] can impart the balanced understanding of, and active concern for, the whole environment which alone can enable man [sic] to plan and realize a world fit to live in" (as cited in Palmer, 1998, p. 9). Actions toward these ends, if they are consciously aligned with these aims, can be perceived as demonstrating a degree of character, as illustrated in the following definitions of character:

> Character is the composite of those psychological characteristics that impact the child's capacity and tendency to be an effective moral agent, i.e. to be socially and personally responsible, ethical, and self-managed. (Berkowitz & Bier, 2005, p. 2)

> Character is at its core about the engagement in moral choices. The notion of character is not simply that people prefer the moral option, or are emotionally drawn to the moral option, but that the person willfully elects to act in the moral direction. (Nucci, 2017, p. 4)

This broad disciplinary overlap can be complemented by the practical exercise of crosswalking the themes of ecological mindedness with character education. A cursory attempt at which reveals immediate overlap: namely, integrity and care appear in both ecological mindedness and discourse of moral and character development. Integrity is identified as both a character strength (Peterson & Seligman, 2004) and one of two "higher order traits" in moral character. It "refers to internal self-consistency. Being a person of one's word, being transparent to oneself, being responsible, self-accountable, sincere, and resistant to self-deception—these are the dispositions of integrity" (Lapsley, 2008, p. 36).

Similarly, care has been identified as a central component of a moral education (Noddings, 2008) and can be considered a virtue (Peterson & Seligman, 2004). Care, as an ethos of context, is also named as one of the eleven principles of character education, "The school must be a caring community" (Lickona et al., 2002, p. 2). We also note, however, that care in discourse of character education is focused on humans, whereas ecological care is broader, specifically calling attention to care for others, self, animals, plants, strangers, distant others, and the earth/environment.

Beyond care and integrity, we also identify the reflection of positive youth development (PYD; see Berkowitz et al., 2006) in ecologi-

cal mindedness. In worldview, the two approaches share much because PYD focuses on "how interchanges between individuals and their contexts (e.g., family, school, peer group, and community) lead to thriving and well-being" (Lerner et al., 2010, as cited in Holsen et al., 2017, p. 560). The five Cs of PYD provide further evidence of alignment with ecological mindedness:

> competence (including intellectual ability and social and behavioral skills); caring (empathy and sympathy for others); confidence (positive self-regard and a sense of self-efficacy); character (integrity, sense of right and wrong, moral values); and connection (positive bonding with people and institutions). (Holsen et al., 2017, p. 560)

We see the themes of ecological mindedness strongly reflected in dimensions of, again, caring and character (integrity). Further, a somewhat prospective association lies in connections, should the activities of bonding to people and institutions also include the natural world and its inhabitants. This point is further supported through Berkowitz et al.'s (2017) notation of "relationships" as among the six categories of "what works" in character education. They contend that relationships should receive primary consideration in school structures, and the school should seek relationships with multiple stakeholders, including those within and outside the school (e.g., community ogranizations, parents, local government). Again, the concept applies to ecological mindedness with the caveat that these relationships include attention to nonhuman communities, both within school, such as schoolyards and nearby parks, as well as beyond school, such as wilderness areas, urban landscapes, and those who inhabit them.

Although we highlight the similarities of ecological mindedness and character education, we also note distinctions between them. Namely, there are a host of virtues and aims of character development (e.g., curiosity, bravery, persistence, fairness) that are not explicitly honored in ecological mindedness (see Peterson & Seligman, 2004). Further, character education focuses on the individual (or student) as its primary project, which could be critiqued by environmental and ecological educators as overly anthropocentric at the expense of exercising "ecocentrism" (Kortenkamp & Moore, 2001). Although these conjectures provide fodder for further theoretical debate, our interest is more pragmatically focused on ecologically minded educators, and their responses to such propositions.

ECOLOGICALLY MINDED EDUCATORS RESPOND TO CHARACTER EDUCATION

A further step toward understanding these intersections is to explore how these concepts square with those who identify as ecologically minded. In one study of ecologically minded curriculum design (see McConnell Moroye & Ingman, 2017), for instance, we explored how teachers appraise and incorporate ecological care, interconnectedness, and ecological integrity into lesson planning, as well as how teachers reconcile these qualities with their current professional responsibilities. In general, our findings indicated that teachers view ecological mindedness as relevant for schools in terms of content, engagement, and students' lives; as compatible with standards and other external mandates; and as a form of character education.

Admittedly, we did not acknowledge the shared ideals of ecological mindedness and character education until a participant specifically used the phrase "character education" to describe ecological mindedness. However, upon further examination, we noticed that many of our participants discussed ecological mindedness not just as a "green" perspective that is good for the planet but, rather, provided a "framework of values around which to structure … lessons [to help] students think beyond themselves" (Moroye & Ingman, 2017, p. 1138). The teachers we interviewed discussed the ways in which caring and interconnectedness could help students think critically and

creatively about how they act. Such beliefs align with a view of character education that does not suppose a moral imperative, but rather, is an examination of the ways in which we can consider and develop beliefs and deliberate how best to act on those beliefs. While there is no one "right" way to act environmentally, there are common beliefs and actions that advance the cause of environmental sustainability.

Similar sentiments were echoed in an ongoing study conducted by McConnell, which explores how classroom teachers and other educators perceive and use ecological mindedness in their professional and personal lives. In this study, 16 participants were asked directly if they believed that ecological mindedness was a form of character education. Early findings indicate that while many educators do consider it to be a form of character education, they generally resist the notion of moral imperatives. As one participant noted, "[character education] suggests that because you're not ecologically minded you're not of good character or have good moral standing. And I don't think that's true." Another participant offered:

> Character education is about teaching values and teaching responses and, you know, how to deal with your emotions. I've never thought of it like that before but I can see that.… You know to learn that there's more beyond yourself and your personal needs is a big thing in both character education and environmental education. That your actions have effects on what's surrounding you beyond your world or your knowledge.

Another participant, who directs a state environmental education nonprofit organization, saw character education as an indirect consequence of environmental education: "I don't think most environmental educators are going in with the intention of being character [educators]. I think that happens as an offshoot, for sure." She also offered another bridge between the two, suggesting that environmental education may be having a stronger influence on the development of youth through civic engagement than it is on increasing knowledge:

> I think there's a lot of crossover when you think about civic engagement and character development. When you look at Positive Youth Development, there's new research that is showing bigger crossovers there than I think people have identified in the past. In terms of what we measure in environmental education, most people are measuring knowledge. I don't think that's where we are having the biggest impact.

This perspective was shared by other participants, who pointed out connections between ecological mindedness and PYD. Kira, a study participant who has been evaluating environmental education programs for over a decade, stated, "I think [ecological mindedness] *is* positive youth development. This care and interconnectedness and integrity… The integrity to me is the character [element of PYD]." Further, referring to the 5 Cs of PYD and the collective themes of ecological mindedness, she stated, "I think, honestly, you could take all of these things, and if you were to overlay them, there would only be a sliver of where they didn't overlap."

Apart from highlighting PYD as a corollary model within character education, which mirrors certain components of ecological mindedness, Kira also acknowledges the potential of approaching EEE from a person-centric perspective:

> social justice and positive youth development puts kids before the environment. Which isn't to say they don't value the environment, but they're putting people in the environment and their well-being first. And maybe that's what we've done wrong [in EEE]. Maybe putting whales and owls in the middle wasn't our best move. Maybe we should have put the people in the middle and reminded people that we all need a healthy environment to survive.

Although many participants were, in general, supportive of connecting character education with the disciplines of environmental/ecological education, some participants were uncomfortable with such a proposition. Margaret, a national park ranger, expressed resistance on the grounds of usurping the family structures or beliefs that students developed at home. In her words, "It just kind of depends on

how you're raised and what you grew up around, the beliefs that your parents had, or the community that's surrounding you. People have their own beliefs."

Diane, a faculty member in higher education, was strongly against the notion of connecting character education with EEE. When asked if she saw ecological mindedness as a form of character education, she replied:

> I don't agree with that. I don't think you can provide a code of ethics, which is what I think character education is. It's not even a code of ethics. It's more of a do's and don'ts, you know. And I am always repulsed by that notion of character education.… And the token economy that's associated with that. You get these rewards for what is deemed good behavior, um, but those rewards require noticing by the teachers … I think there are so many different ways to be a good person and I think there are so many ways to be ecologically minded.

The tension between character education and ecological mindedness, for this faculty member, rests on the approach of character education, and the extent to which the boundaries of characteristics and themes are defined. This response to the question of overlap, for this participant, reflects her aversion to reductionistic conceptions of character education. Another faculty member, Billy, echoed these sentiments, but offered an openness to different forms of character education:

> All education is political or value-laden. It's about shaping dispositions, about shaping behaviors, shaping values, shaping beliefs. I think you can do that in a way that's not autocratic. Right? By giving people the opportunity to openly think about topics that they may never have thought about before in their lives. You have to care for others beyond yourself. You have to be open-minded … and sensitive to other people. I extend that to all species on the planet.… Respectful, obviously being respectful. So, yes, it's character education. It's just not whatever that program is, the "Character Counts".[2] Although it is for a certain degree that program but with an ecological lens.

Broadly, the overlap of character education with EEE and ecological mindedness has been perceived inconsistently by participants of our studies. Predictably, any such consideration of overlap for these educators is as much an exercise of defining the two practices as it is of comparing them. This is reflected in the definitional flexibility exercised by participants concerning the suggested overlap. Some had critiques of particular character education programs (i.e., Character Counts and "token economy" forms of character education), and this may have colored the extent to which they were willing or able to identify connections between the two. Others, who noted the shared ground, were able to operationalize more malleable definitions for EEE or character education. Similarly, this was sometimes based on participant experiences with character education programs or approaches that may better align with ecological mindedness. Positive youth development, in particular, was mentioned by several participants as demonstrating alignment between character education and ecological mindedness. This presents, at minimum, promising ground for further exploration.

DISCUSSION: ECOLOGICAL CHARACTER EDUCATION MOVING FORWARD

Although the transposition of character education with EEE deserves further theoretical discourse, we can distill actionable lessons from these initial projections. At the risk of too crudely summarizing: There are elements of EEE that are separate and distinct from character education. Conversely, there are elements of character education that have little, if anything, to do with EEE. There is, however, shared ground between the two. And it is on this ground, seemingly, that ecological mindedness resides. Though the implications of the connections noted in this work are numerous, we highlight a few key perspectives that may guide the next steps of such a line of inquiry.

The field of EEE may stand to benefit from the methods of character education because virtue development, as it is presented in the

context of character education, may be a viable pathway for achieving the aims of EEE. Such a pathway may be timely, considering recent discourse of environmental education. As Orr (2016) argues, "sustainability will not be achieved through managing the planet, as some propose, but rather by learning to manage ourselves within its limits" (p. 15). Rather than focusing on knowledge of the environment, or gaining literacy of the intricate connections of actions with its influence on the environment (as is common in many practices of environmental education), we must also seek to develop the integrity and character of students, such that a knowledge of these connections influences what they do. The practices of character education for the development of virtue, in this regard, may offer a means to achieve these aims.

In other words, through relatively minor alterations, we note marked potential to bend these frameworks toward the dual aims of character education and EEE. Among the most promising exemplars in this regard, as evidenced by the repeated recognition of its overlap with ecological mindedness, is the Positive Youth Development framework, which could be extended to include the schoolyard and local ecosystems.[3] Further, the approach to relationships offered by Berkowitz et al. (2017) could be broadened to attend to environmental relationships. These adaptations could occur one of two ways: through an intentional and formal curricular revision, or through the individual practices of teachers. In the latter case, teachers might serve as educational leaders who infuse the concepts of care, interconnectedness and integrity alongside overt virtue development and conscious action that supports positive outcomes for youth and for the environment. As we have seen, teachers are able to navigate school systems that are not always conducive to teaching about these ideas, regardless of the topic areas in which they teach. Therefore, we contend that complementing a character education curriculum with an ecological lens presents a promising possibility.

Moroye's (2009) conception of the complementary curriculum is also salient for broader discourse of character education. As we have noted, ecologically minded teachers are able to infuse, or complement, their everyday curriculum with an additional intentional dimension. Through doing so, they are functioning as educational leaders regardless of the systems in which they are operating. This is both a cause for concern and promise, because it highlights that our systems of education are comprised of people with their own mores, agendas, and values concerning virtue and character. Acknowledgment of these complements to the curriculum will better position us to achieve our aims. As Moroye (2009) noted:

> This recognition adds a layer to our understanding and evaluation of what is happening in a classroom, or to what could or should be happening. In this way, identifying, understanding, and evaluating the complementary curriculum is not only useful to teachers themselves, but also to those who aim to support [them]. (p. 808)

Teachers operate on their values and beliefs, regardless of external desires or requests, in subtle but important ways that can result in substantial differences in the lived experiences and development of students. Therefore, to us, it seems we would be best positioned to facilitate this character development with intention, rather than allowing this to occur haphazardly. This may be accomplished through engaging teachers in discourse of the characteristics or virtues they identify, attending to how this aligns with our collective desires for developing character in our students (including community perspectives) (see Berkowitz & Bier, 2005), and planning accordingly.

Closing

In this work, we set out to explore the intersections of character education and environmental/ecological education through ecological mindedness. Through reviewing both the conceptual and practical intersections of these

ideas, alongside data from several studies of ecologically minded educators, we have illustrated several important connections. These findings reify the potential of transdisciplinary inquiries such as this, as they have resulted in new lines of inquiry for both EEE and character education.

Further inquiry on the shared ground of these disciplines may address the concern raised by Orr (2016), who argues that "we educators have equipped our graduates with the tools and technology necessary to enlarge the human empire, but not the wisdom to understand the consequences of doing so" (p. 102). Some topics discussed in this work—such as the expansion of character education frameworks to include nonhuman communities—provide a promising means for addressing this concern. We also emphasize that pursuing such an approach may take many forms, including through the complementary curriculum (Moroye, 2009). Indeed, the very notion that educators can serve the role of virtuous leaders of character development regardless of the systems in which they reside raises new possibilities concerning the theory and practice of character education and virtuous leadership.

NOTES

1. The majority of these studies lean on the qualitative method of educational criticism and connoisseurship (Eisner, 1998).
2. We note that "some of the more prominent programs that rely on such words (e.g., Character Counts, The Virtues Project) either have not been researched, or the research that has been done is not scientifically rigorous" (Berkowitz & Bier, 2005, p. 22).
3. A noteworthy tension here is that developing virtue toward ends outside the virtues themselves effectively embraces an instrumentalist approach to virtue development, which has been critiqued in character education (Kristjánsson, 2015).

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