5 Humans Are Humus

Using Eco-Psychology to Highlight the Language of Dualism and the Promise of the Non-Dual

Travis Cox
Naropa University

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In 2010, As a PhD student in Sustainable Agriculture at Iowa State University, USA, I had the opportunity to take the institution’s first organic agriculture class. During the course of the semester, a soil scientist from the National Soil Tilth Lab gave a guest lecture. In that lecture, she revealed that she was pioneering some of the first comprehensive research on soil biology, after 30 years of working at the Lab. Up until that point, the Lab’s research was based on the assumption that soil was strictly a medium in which to grow plants using chemical amendments.

Fortunately for the biosphere, this assumption is increasingly coming under scrutiny as science is finding an inconceivable amount of invaluable life present in the soil. Soil scientist Elaine Ingham, formerly Lead Scientist for the Rodale Institute, uses the term *soil food web* as a way of expressing the biotic nature of soil. Even individuals concerned primarily with economics, such as the Slow Money group from Boulder, Colorado, are becoming aware of the necessities of the living soil. This is typified by the soil themed issue of their annual journal for Winter 2017/2018 (Tasch, 2018).

Rising to the challenge, the environmental humanities research field has also taken up the gauntlet. Environmental philosophy has been attempting to elevate ‘dirt’ from its lowly status by making philosophical arguments for its consideration as soil. However, when these arguments have their basis in the unquestioned assumptions of modernity, do they go far enough in encouraging the kinds of relationships *with* soil that will be necessary for the regeneration thereof, and concomitantly for the survival of civilisation through the twenty-first century?

It is the premise of this chapter that an eco-psychological look at soil, especially in eco-psychology’s non-dual form, would benefit individuals who are looking to begin a healthy, holistic relationship *with* soil. A simplistic, yet valuable characterisation of this non-dual relationship between humans and the natural world has its genesis in the origins of the word *human*, which shares the same root as *humus*. Indeed, *Adam* in Hebrew shares a root with the words for ground, earth and soil.

This chapter will expand on the work of Patzel (2009), from an edited volume by Landa and Feller, *Soil and Culture*, in which he utilises the application of archetypal images from Jungian

psychology to explore scientists' relationship to the 'outer soil' as a way to understand scientists' 'inner soil'. This chapter will use eco-psychology, in its transpersonal, non-dual form, as a way to examine human relationships *with* soil, going beyond the various dualistic ways of relating in order to explore the furthest reaches of the holistic view – the non-dual – while simultaneously acknowledging other pathways to non-dualism, including eco-feminism, Buddhism and indigenous perspectives.

ECO-PSYCHOLOGY

There is a distinct possibility that many people reading this chapter will not have a working understanding, much less a relationship, with the discipline of eco-psychology. This is undoubtedly largely owing to the fact that eco-psychology is still currently in its infancy, with the term itself not being introduced until 1992 and the 'official' discipline being established years later. But it is also, in part, owing to the amorphous nature of what the discipline actually is and does. The easiest way to define eco-psychology may be the intersection of ecology with psychology: with ecology informing psychology (because the discipline of ecology came after the founding of psychology) and psychology assisting ecology. It can do so by using psychology to encourage practices and approaches that are effective in changing behaviour in people who are already 'sympathetic to the cause', as well as helping to 'diagnose' and 'analyse' the reasons why so much of humanity is ecocidal, and also to offer options for 'therapy' for those who are unable to see the necessity for change.

Eco-psychology can, however, be much more than that; so much so that it has been criticised as bordering on a handicap, since the field itself is so broad that it defies definition. The author of this essay does not subscribe to this criticism but rather embraces the potential ambiguity as the very thing that allows for eco-psychology and its potentiality to enter into the realm of the non-dual. There are many aspects to eco-psychology. The implications of embodying ecological interconnectivity can be disorienting. Yet at the same time, it provides a lens through which we can examine the ecocidal disconnection of many modern cultures and institutions, and also offers tools to change individual attitudes, thereby changing these cultures and institutions from ecocidal to life-affirming and life-enhancing ones and helping to heal the biosphere in numerous ways.

Eco-psychology does all of these things by functioning at the level of a worldview. Operationally, eco-psychology is simultaneously grounded within ontology, epistemology, axiology, sociology, anthropology and ecology (Hedlund-de Witt, 2013). This same maddening pluralism, if properly understood, can lead individuals to a non-dual experience, which may prove to be one of eco-psychology's greatest assets: a lived experience of the unity of humans and humus.

MODERN, WESTERN CONCERNS FOR SOIL: GOOD INTENTIONS, PROBLEMATIC LANGUAGE

Within modern academia, initial attempts to rescue soil from being 'treated like dirt' unfortunately, but expectedly, were undertaken while operating under false conceptions of nature, and in the particular case of soil: a mechanistic, anthropocentric, dualistic perspective. While I acknowledge the value of all attempts to reconnect with soil, I argue for a non-dual, eco-psychological worldview in order to accomplish the aim of a holistic reconnection, in ways similar to other non-dual worldviews (e.g. eco-feminism, Buddhism, systems thinking and First Peoples' perspectives). For a broader analysis of industrial and alternative agricultural worldviews, see Cox (2014).

Fouke (2011) argues that moral concern should be extended to soil, based on an argument from *nearness*, in which the microbial ecology of the human gut is directly informed by, and in some way mirrors, soil microbial ecology. Thus, since human existence is dependent on both of these communities – and has even been partially defined by them in an evolutionary sense – it behoves modern humans to eschew thinking about soils instrumentally, because in some ways we are soil.

However, Fouke (2011) uses morality in much the same way that other agricultural philosophers have done in the past, which is a very anthropocentric way of relating to soil (through human-conceived morals) in order to justify its demand on our attention (see also Paden, 1990). While admirable in their intentions, many of these efforts succumb to problematic assumptions, so rooted in Western culture, as to be inherent in the language used to try and talk about these problems. Even though it is true that ‘soils provide services worth trillions of dollars annually’, to frame it in such a way is problematically anthropocentric because it portrays soil not as a collection of innumerable beings, but as an object in service to humans, to say nothing of the issue of its commodification (Fouke, 2011: 149). While we might risk ‘getting into the weeds’ over the debate around genetic engineering, it should be noted that there is a tension between the ideas of ‘healthy soil [as] a self-organizing system’ and the soil ecosystem as ‘one of the richest sources of compounds for biotechnology’ (ibid), even though biotechnology is intrinsically *against* self-organisation. If we view soil as a vessel for possible biotechnological pursuits, through which humans reorient organisms towards particular aims that are of interest to themselves, isn’t it *by definition* no longer *self-organising*?

Another example of academia’s struggle to accurately articulate human/soil relationships can be found in inherited language. Kirschenmann (2009) writes about the necessity of having a conversation with the soil, thereby granting the soil some agency through its ability to enter into a conversation with humans. However, elsewhere in the same article, Kirschenmann (ibid) uses the term *soil management*, even though it is obvious that this term betrays the very intent of his theory. It should be noted, however, that Kirschenmann has a long record of working with numerous stakeholders around issues of soil, and so concessions should be given, knowing that the use of language like *soil management* would be the norm for most players in the modern agricultural system. These concessions are especially warranted when the position that Kirschenmann is ultimately asking farmers to take is a revolutionary one: ‘we can only engage farmers in a process that involves them in conversation with their own soils’ (ibid: 237).

Nonetheless, this invokes a quintessential dilemma for environmental ethics, best typified in the last page of Bateson’s (1972) book of essays, *Steps to an Ecology of Mind*: ‘Is it important that the right things be done for the right reasons?’ (ibid: 512). There is a distinct possibility that using the term ‘management’ reinforces a particular understanding *of* and relationship *to* soil. For example, if a conversation is taking place and one party is attempting to ‘manage’ the other, then what is the quality of that conversation? Even advocates of true agriculture reform still find themselves caught within this ethical dilemma and way of thinking, in which they partially rely on, and give power to, the worldview of industrial agriculture through their language. This dissonance is also an indication of society’s current transitional period, where culture is trying to break free of dualism. A good example of this conscious attempt to liberate society from a one-dimensional framework can be found in Robin Wall Kimmerer’s work. As Professor of Environmental and Forest Biology at the State University of New York College of Environmental Science and Forestry, Kimmerer advocates for using the term *Ki* when referring to an individual of another species (especially where the gender is unknown) with *Kin* being the plural, as a way of avoiding the word ‘it’, which has a connotation of a dead object as opposed to living subjects (Storrs, 2018). With this language, the life in the soil becomes our *Kin*.

Part of the reliance on dualistic language comes from the use of modern science as the sole legitimate epistemology. The nature of this problem, and eco-psychology’s usefulness as an antidote, will be addressed later in this chapter. It will suffice here to mention a very succinct, yet inclusive, characterisation of the problem as a way of highlighting the issue before moving beyond it. The philosopher David Ray Griffin (1988) put it this way:

Recognition that the scientific community seeks truth is fully compatible with the recognition that the truths it seeks are selected according to various interests and prejudices. Recognition that science has discovered a wide range of truths is compatible with the conviction that a wide range of truths it has *not* discovered exists, and that its formulations of the truths it *has* discovered are one-sided, presenting only abstractions from the full truth. Recognition that there must be some truth to the ‘modern scientific

worldview', which supports and is supported by the select truths of modern science, is fully compatible with the view that other worldviews exist that, all things considered, correspond equally well or even better to the full nature of reality.

Griffin (1988: 9–10, emphasis in the original)

FROM 'INNER SOIL' TO BEING SOIL

In another attempt to shift away from the dualistic, one-dimensional paradigm of academia, Patzel (2009) unearthed some of the subtler relationships between soil scientists, farmers and soil itself. His discoveries went a long way towards making the conversations between these entities less one-sided by highlighting the various ways that different individuals conceived of their connection to soil, using terms such as 'Mother Earth' or as working with 'the vital forces or spirits' to describe the relationship (ibid). In these exchanges, people were tending to their 'inner soil', meaning they were working with a fuller conception of their humanity and their relationships to the deeper aspects of soil, just as much as they were relating to the 'outer soil', the physical soil itself. For instance, the early European organic farmer, Hans-Peter Rusch (1906–1977), understood that reductionism provided an insufficient understanding of soil, or in his words, 'holy Mother Earth' (Patzel, 2009: 207). Another early European organic farmer, Mina Hofstetter (1883–1967), in Patzel's (2009) characterisation, 'claimed the importance of a spiritually receptive attitude towards Mother Earth' (ibid: 208), seemingly in an effort to create the kind of conversation that Kirschenmann (2009) advocated (see the previous section). When an individual adopts this co-creative outlook while in conversation with soil, Hofstetter notes, 'then suddenly, she [soil, or mother nature] starts talking and becomes understandable' (Patzel, 2009: 208).

From a farmer's perspective, British progenitor of organic agriculture, Lady Eve Balfour (1898–1990), composed the *wholeness approach*, which argued that every part of a whole had a right to exist, stating that 'the biota is a whole, of which we are a part' and 'if I am right, this means that we cannot escape from the ethical and spiritual values of life for they are a part of the wholeness' (Patzel, 2009: 217). This mindset wasn't exclusive to farmers; many scientists embraced it as well. Russian soil scientist Vasily Vasilyevich Dokuchaev advocated the study of holistic soil science and stated that 'all its principal elements must be *revered* and studied alike' (Patzel, 2009: 215, emphasis added). Acknowledging that soil has its own right to exist creates the theoretical foundation necessary to initiate and establish an eco-psychological relationship to soil.

However, even Patzel (2009) recognised possible discrepancies when it comes to relating to the 'inner soil'. He gave the example of two preeminent soil scientists, Fallou (the German founder of modern soil science working in the first half of the nineteenth century) and Jenny (former President of the Soil Science Society of America working throughout the twentieth century), who exhibited an 'inner soil' understanding, but with 'the polarity between the emotional and feeling approach on the one hand, and the fascination with rational order on the other hand', the 'inner soil' experience was discounted or ignored: 'In fact, this had been widely the case, and one might argue that this contributes to the accelerated and ongoing soil deterioration and destruction in large parts of the world' (Patzel, 2009: 216). Jenny (Patzel, 2009) continued to advocate that:

[The soil] speaks to us through the colours and sculptures of its profile, thereby revealing its personality; we acknowledge it by giving soil a name, albeit in a foreign tongue, but we don't mention our emotional involvements. In fact, our soil language is lifeless.

Patzel (2011: 216)

One could further argue that the division of the emotional and the rational is just another manifestation of dualism at work. Patzel (2009) ended his essay by returning to the question posited earlier:

How could we personally and scientifically relate in an appropriate, fruitful, and sustainable way to our 'inner soil', so that it does not lead us to ideological one-sidedness and dogmatism, but may bestow on us the right idea at the right moment, the energy and guiding symbols to follow our path to what our culture needs next?

Patzel (2009: 223)

The current author believes that looking at soil from an eco-psychological perspective is the right idea, for this moment.

HUMANS AS HUMUS: AN ECO-PSYCHOLOGICAL LOOK AT HUMAN/SOIL RELATIONSHIPS

As discussed previously, identifying a full and clear definition of eco-psychology can be a difficult task and one that is not necessary here. For the purposes of this chapter, the focus will be on three concepts that help constitute eco-psychology: non-dualism, non-anthropocentrism and alternative epistemologies that support these two former concepts. This definitional framework will help avoid some of the issues encountered by previous attempts of relating to soil. These three concepts seek to address the 'core issues' of psychology in general: 'Where is the "me"? Where does the "me" begin?, Where does the "me" stop?, and Where does the "other" begin?' (Hillman, 1995: 17). Furthermore, and specifically for the project of eco-psychology, 'defining the self-world connection' (Conn, 1995: 157) should be obvious: dualism is transcended by the non-dual; human selfishness is muted by non-anthropocentrism; and scientific materialism is negated by a recognition of multiple ways of knowing.

If, at this moment, paradoxical questions are forming in readers' minds, then this chapter is so far meeting with some success. Non-duality, when experienced from within the perspective of duality, is often paradoxical. For instance, Hillman (1995) discussed previous ecologically destructive attempts at cutting the boundary of 'self' and 'other' and highlighted the 'uncertainty about making the cut at all', only to end up saying 'we do need to see, however, that the cut between me and world, arbitrary as it is, nonetheless has to be made' (p. xix). From a dualistic perspective, of course the division has to be made: it is the very nature of human existence – we are not the trees (which is why it is so easy to cut them down). However, from Westernised eco-psychological perspective,

we have, in short, cut ourselves off from our connection to the Earth so thoroughly in our epistemology and our psychology that even though we are 'bleeding at the roots', we neither understand the problem nor know what we can do about it.

Hillman (1995: 161)

In a non-dualistic reality, individuals continually revise the boundaries of 'self' as necessary given their particular worldview and as the context demands. Not only is there an individual 'self', but that 'self' is also holonic, a part of many 'selves' that exist within a whole system: 'family, a community, a bioregion, or the living planetary ecosystem' (ibid: 164). Or, to take non-dualism to its further reaches, 'We are nature with a concept of nature. Nature weeping. Nature speaking of nature to nature' (Griffin, 1978: 226).

Thus, from a non-dual, eco-psychological perspective, one could simultaneously talk about knowing soil on *its* own terms, that humans *are* soil, and about humans having a healthy relationship *with* soil. Greenway (1995) discussed the *wilderness effect* and how extended wilderness experience programmes can facilitate transpersonal experiences of a non-dual 'self', but also points out that some programmes 'are not experiencing wilderness on its own terms' (p. 133). This is not an epistemologically problematic assertion in eco-psychology. Indeed, it is believed possible to experience an 'other' on its own terms. Like Hillman (1995), Greenway (1995) is acutely aware of the fact that the human ability to:

Make distinctions, and ‘self-reflect’, now appears as a beautiful capacity run amok, proceeding from distinction to disjunction, from reflection to alienation, and from alienation to the kind of full blown split between subjects and objects (or between the poles of any disjunction) termed ‘dualism’.

Greenway (1995: 131)

Greenway (1995) recognised that yet another way to relate, in the case of this chapter, to soil would be to ‘shift from culturally reinforced, dualism-producing reality processing to a more non-dualistic mode’ (p. 131), whereby humans honour the Earth by their self-awareness as humus. Even the middle ground between these two ‘poles of disjunction’ is celebrated in eco-psychology, where ‘healthy relationships (between distinct beings) are not an esoteric goal. It is a matter of our very survival and the survival of most of the life upon this Earth’ (O’Connor, 1995: 151). In fact, from an eco-psychological lens, it is possible to see all three of these perspectives in enterprises of the soil, such as gardening and farming, ‘activities in which people and wild nature intermesh and begin to co-evolve’, like ‘the physical embodiment of symbiosis and co-evolution’ (Harper, 1995: 198).

The non-dual aspects of eco-psychology overlap significantly with its non-anthropocentric aspects. To talk about relating to soil on *its* own terms is to attempt to remove the human projections onto soil and the projections onto the beings which comprise it and allow soil to present itself as it is. To talk about holistic human relationships *with* soil is to invoke the symbiotic nature of those relationships which facilitate the well-being of *both* humans *and* soil. Furthermore, to talk about humans *as* soil is to invoke a level of relationship that transcends the boundaries of human and soil and to see the unity at the core of their separate existences, both ontologically and through time and space.

In case this all seems too esoteric, Roszak (1995), who coined the term eco-psychology, explicitly counters that mischaracterisation:

Some are quick to see elements of sentimentality or romanticism in our growing appreciation of the sacred ecologies that guide traditional societies [which are significant contributors to the discipline of ecopsychology]. This is mistaken. There is nothing “mystical” or “transcendent” about the matter as we might understand those words. It is homely common sense that human beings must live in a state of respectful give and take with the flora and fauna, the rivers and hills, the sky and soil on which we depend for physical sustenance and practical instruction.

Rozsak (1995: 6)

Or, as Liberty Hyde Bailey (as cited in Cox, 2014: 50), Dean of Agriculture at Cornell University from 1903 to 1913 and pioneer of the US National Extension Service, put it: ‘The good spiritual reaction to nature is not a form of dogmatism or impressionism. It results normally from objective experience, when the person is ready for it’ (p. 52).

These sentiments, as stated by both Roszak (1995) and Bailey (as cited in Cox, 2014: 50), that non-dual, non-anthropocentric ways of relating to soil are ‘common sense’ and ‘result normally from objective experience’ obviously invoke a discussion around alternative epistemologies, where one moves from ‘standard resource management models’ which ‘are almost entirely anthropocentric and utilitarian’ towards multiple understandings, including animistic, relating to ‘the world no longer as a conglomerate of dead material objects but as ensouled, alive and animate’ (Perluss, 2014: 8; Rees, 2010: 28), as well as non-dual, which ‘allows eco-psychology to recognize that an individual person is always a part of a greater ecological whole’ (Soule, 2014: 29). Indeed, these relationships, and ways of knowing, are so ecologically and psychologically complex as to begin to call into question even the concept of the individual, egoic ‘self’.

As an example of our visceral interconnectedness, Professor John Cryan (cited in Wheeler, 2012), Chair of the Department of Anatomy and Neuroscience at the University College Cork in Ireland, believes that his research findings suggest that our thoughts could be directly influenced by

the microbiome in our intestines. He undertook experiments with rats¹ and probiotics, with results showing that rats fed probiotics survive longer in standard stress tests (almost double in some cases). This increase in stamina was isolated to the probiotics by cutting the vagus nerve (which runs from the intestines to the brain) in a subsequent experiment, whereby those rats fed probiotics but whose vagus nerve was cut reverted back to a regular stress test endurance. One philosophical extrapolation of these findings is that even the human sense of ‘will’ may not be entirely human! When rats fed probiotics tried to endure the stress test for longer periods of time, those who have had their vagus nerve cut returned to normal levels. This suggested to Dr. Cryan that the biotic community in the rats used the vagus nerve to stimulate a longer sense of self-preservation. So, shouldn’t an understanding of what a rat ‘self’ is, and by extension a human ‘self’, include those very same beings who contributed to the rats’ and to human preservation?

However, with the one-sided epistemology of a rational, empiricist scientism, there is little chance of understanding the complexity of this non-dual relationship. Eco-psychology, on the other hand, emphasises the necessity of multiple epistemologies. Metzner (1999) incorporated alternative epistemologies as an integral part of his ‘green psychology’ (p. 175). Sewall (1995) goes so far as to delineate the ways in which alternative perceptions can assist in the task of reconnection: ‘We begin to care for that which we see, and ideally, we find ourselves loving the material world, our Earth. Because love alters behaviour, honouring sensory and sensual experience may be fundamental to the preservation of the Earth’ (p. 203).

One often-overlooked implication of the singular emphasis on empiricism is the subtle materialism that results, which only continues the dualistic paradigm. Cox (2014) articulated the concept of subtle materialism, building on the concept of Esbjörn-Hargens and Zimmerman’s subtle reductionism, ‘whereby ecological relationships are principally conceived as relationships between material objects that lack a subjective, interior mode of existence’ (p. 96). This subtle materialism, which even Aldo Leopold occasionally recapitulates, has two negative results. One is anthropocentric in that interiority is only ascribed to humans. The other is that relationships between beings are only depicted in materialistic terms.

The roots of this reductionism in ecology theory can be traced back, in part, to Arthur Tansley (as cited in Cox, 2014: 113) who, in 1935, made an explicit effort to move ecology away from ‘communities’ and instead coined the term *ecosystem*. Worster (1985) expressed:

The often-repeated notion that the plant assemblage is more than the sum of its parts, that it forms a whole which resists reductive analysis, he took to be a fiction worked up by an overexcited imagination... In short, Tansley hoped to purge from ecology all that was not subject to quantification and analysis, all those obscurities that had been a part of its baggage at least since the Romantic period.

Worster (1985: 301)

However, when it comes to the history of alternative agricultures, alternative epistemologies are almost always invoked alongside alternative practices (Cox, 2014: 56). Two quotations will suffice here for the purposes of illustration. The first is Wes Jackson (cited in Cox, 2014), who discussed inherited worldviews in ways similar to the discussion above: ‘Here lies my worry. Most proposals for bringing about a sustainable agriculture and culture carry the fingerprints or markings of the Baconian-Cartesian worldview. At best, it amounts to Smart Resource Management’ (p. 51). The second is Wendell Berry (also cited in Cox, 2014), who is overt in his mistrust of reductionism: ‘Reduction does not necessarily limit itself to compacting and organizing knowledge; it also has the power to change what is known’ (p. 123). Thus, eco-psychology, which is partially constituted by its inclusion of alternative epistemologies, pairs extremely well with alternative agricultures, which also are made up of ways of knowing that go beyond scientific empiricism and subtle materialism.

¹ This author wants to acknowledge that this example is problematic as an example of human interrelationship to the more-than-human world, given that it involves rats being used in very instrumental ways.

OTHER NON-DUAL PERSPECTIVES: BUDDHIST, ECO-FEMINIST AND INDIGENOUS

Because non-duality is inherently difficult to comprehend, especially from within many Western cultures which are impeded by dualistic concepts, the enterprise of encouraging a non-dual relationship to soil would benefit by highlighting other non-dual frameworks, such as Buddhism, eco-feminism and indigenous perspectives.

Buddhism is fundamentally interested in non-duality because ‘non-duality is a concept central to the notion of enlightenment’ (Sadakata, 1997: 79). As such, various sectors of Buddhism have created numerous ways of understanding this concept. Perhaps one of the easiest, if not one of the most poetic, interpretations comes from Zen master Thich Nhat Hanh, as expressed by Kornfield (1993):

If you are a poet, you will see clearly that there is a cloud floating in this sheet of paper. Without a cloud there will be no water, without water, the trees cannot grow; and without trees, you cannot make paper. So the cloud is in here. The existence of this page is dependent on the existence of a cloud. Paper and cloud are so close. Let us think of other things, like sunshine. Sunshine is very important because the forest cannot grow without sunshine, and we as humans cannot grow without sunshine. So the logger needs sunshine in order to cut the tree, and the tree needs sunshine in order to be a tree. Therefore, you can see sunshine in this sheet of paper. And if you look more deeply, with the eyes of a *bodhisattva*, with the eyes of those who are awake, you see not only the cloud and the sunshine in it, but that everything is here, the wheat that became the bread for the logger to eat, the logger’s father – everything is in this sheet of paper... The presence of this tiny sheet of paper proves the presence of the whole cosmos.

Kornfield (1993: 202)

Buddhism, like eco-psychology, is not consumed by the perspective of unity; it can also ‘honor our individual or personal destiny, our self for this life’ (Kornfield, 1993: 207). Here again, there is a framework that encompasses the ideas of non-duality (i.e. humans are humus), subjectivity (i.e. a respect for all beings) and relationship (i.e. the interaction between my personal destiny and that of other beings).

Eco-feminism is another such framework. One of the mothers of eco-feminism, Charlene Spretnak, does a fantastic job of delineating the seemingly ineffable in her article ‘Radical Non-duality in Eco-feminist Philosophy’. In it, she highlights the difference between minimal and radical non-duality, discusses non-duality’s relationship to oppression and explores non-dual conceptions of ‘self’. Her definition of non-duality is ‘a dynamic system of relations wherein any particular manifestation functions simultaneously as a distinct part and the unbroken whole’ (Spretnak, 1997: 427). With that understanding, she notes a difference between minimal non-dualism, which posits autonomous subjects in interdependent relationships, where this idea still partakes of scientific materialism, and radical non-duality, which posits ‘the existence of unitive dimensions of being, a gestalt of a subtle, unitary field of form, motion, space, and time’ (Spretnak, 1997: 425). This perspective takes the human/humus relationship even deeper, beyond an understanding of connection based on constituent elements across space and time. It asserts a unity that also exists on an ontological level, thus giving even more credence to the enterprise of recognising human’s essential relations *with* soil.

As important as this understanding is, Spretnak (1997) acknowledges that there can be a danger in how it is applied. Historically, unity (or non-duality) could be used to erase difference, for the benefit of those in power. But that is not the case here, because eco-feminism is an inherently liberationist undertaking, which understands the ‘self’ as relational and therefore constituted by interactions with ‘other’ beings and celebrates these aspects of ‘self’: ‘genetic inheritance’, ‘cognitive functions’, ‘bodily experience...[and] the self-regulating dynamics of the body-mind’, ‘exposures to strong and weak electromagnetic fields’, ‘other relational dynamics that lace the universe’ and ‘the influences of landscape, weather, and “other dynamics of one’s bioregion on imagination and

mood” (Spretnak, 1997: 433). In future, when non-dual understandings become more common place, as necessitated by our current social and ecological crises, the non-dual relationship of humans and humus will need to be an explicit component in any list of aspects of ‘self’, such as the list above. Indeed, as these ‘ontolog[ies] based on dynamic and admittedly partial knowledge[s] *as well as* awe toward the complexity of embodied and embedded existence... contribute substantially to the profound social transformation that is needed’ (Spretnak, 1997: 435, emphasis in original), soil will need to be ever present as the very foundation of this work.

Finally, many indigenous belief systems are also non-dualistic in their orientation, though ‘non-dual’ might not be the preferred term. Nancy J. Turner (2005), author of *The Earth’s Blanket: Traditional Teachings for Sustainable Living* and researcher who has worked with indigenous communities for over 40 years, cited a term from the Nuu-Chah-Nulth Nation, *Hishuk ish Ts’awalk*, which translates approximately to ‘everything is one’ (p. 179) when generalising about indigenous understandings of human/nature relationships. In her exploration of Navajo sand painting, Griffin-Pierce (1992) used ‘interrelated totality’ (p. 66), while Cajete (1999) encapsulated these complexities in the phrase the ‘theology of place’ (p. 66), which, ‘while focused specifically on [a] place, extended to include all of nature’ (p. 5).

While the language used to express these indigenous, non-dual understandings may differ significantly, the commonality is a stance against Western dualism. In example after example, Turner (2005) juxtaposed the ‘compartmentalize[d]’ approach of ‘western society’, which separates forestry and fisheries into different administrative and academic units, against ‘First Nations’ which ‘lived this interconnectedness between their landscapes and resources, relying fully on all of the components and their associations simultaneously’ (p. 180, 183). She ended her exploration by invoking the Haudenosaunee Thanksgiving Address, which is a litany of all the beings that humans are in relationship *with*, offering gratitude and thanks for the ways these ‘other’ beings help to constitute human beings. Turner (2005) stated, ‘this prayer...epitomizes a world view in which everything is one, and it emphasizes our need to recognize and express our appreciation to all the elements of our universe’ (p. 206).

Griffin-Pierce (1992) offered a contrite summary of the issue of dualism: ‘What Anglos call the pairing of opposites Navajos conceptualize as the halves of a whole, with each half necessary for completeness’ (p. 66). She went on to quote a participant in her research as saying, ‘When you say “opposites” it sounds like each part is whole by itself. It misses the point because you need to include them both’ (p. 66). In other words, when humans conceive of themselves as something separate from soil, what gets lost is the larger and equally valid perspective where humans *are* humus.

Cajete (1999) articulated the lived experience of native people living under this dualism, which shows up as alcoholism, depression and many other forms, in very stark terms, ‘Tewa people call this state of schizophrenic-like existence *pingeh heh* (split thought or thinking, or doing things with only half of one’s mind)’ (p. 17). But, Cajete (1999) doesn’t believe that healing this split is the exclusive task of indigenous peoples; rather, ‘it is also the task of others who consider themselves people of place’ (p. 17), or perhaps people of the soil. According to Cajete (1999), even the word indigenous

is derived from the Latin root *indu* or *endo*, which in turn is related to the Greek word *endina*, which means ‘entrails’. ‘Indigenous’ means being so completely identified with a place that you reflect its very entrails, its insides, its soul.

Cajete (1999: 6)

CONCLUSION

All human beings, even those living in modern, dualistic cultures, are indigenous to soil, with its microbiotic community finding expression in our entrails. Many recent Western understandings of soil belie that connection and, unfortunately, many attempts to reconnect humans and soil have

inadvertently recapitulated to the dualism that separate the two. Eco-psychology has the power to synergise the human and the soil, through its non-dualistic, non-anthropocentric and alternative epistemologies. This allows humans to connect *to* soil on its own terms, to have a holistic relationship *with* soil and to see humans *as* soil. But eco-psychology isn't the only system of thought that has the ability to do this. Buddhism, eco-feminism and multiple indigenous belief systems can also reorient human beings towards the non-dual, which is ultimately what I am advocating here: the ability to see humans as humus.

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