ABSTRACT: Industrial agriculture has taken over as the dominant form of food production globally, resulting in alternative production methods converging as a sustainable counter. Unfortunately, the ideological and metaphysical underpinnings of these alternative agricultural philosophies have been ignored as have the metaphysics of industrial agriculture. Using transpersonal ecology as a disciplinary analogue, this paper demonstrates an ideological commonality among alternative agricultural theorists, such that the term transpersonal agroecology covers their beliefs like the term transpersonal ecology covers the commonality of deep ecologists. The commonality is threefold. First, theorists are united in opposition against the scientism and economism that make up the productionist mentality. Second, there is awareness that in the practice of sustainable agriculture there is a process for and experience of identification with the beings on the farm, and with the farm itself. Finally, theorists contribute to the transpersonal conversation through their emphasis on values, alternative methodologies, and spirit.

KEYWORDS: Sustainable Agriculture, Transpersonal Ecology, Identification, Agroecology, Environmental Philosophy.

For most people, sustainable agriculture pertains to the on-farm activities of practitioners, such as cover crops, integrated pest management, and no-till. This is true even for the off-farm activities of consumers, who choose to purchase their food locally or look for the USDA organic seal. However, a study of the progenitors of sustainable agriculture—people such as Albert Howard, Masanobu Fukuoka, and Rudolf Steiner, who developed organic agriculture, natural farming, and biodynamics, respectively—indicates that there is something more than just practice to sustainable agriculture. There is something deeper at the level of the mind-set of the farmer.

By employing transpersonal ecology (TE) as a disciplinary analogue, including direct quotes from the aforementioned theorists, as well as many others, this article shows that sustainable agriculture has implications for the worldview of its practitioners. These implications include an opposition to the scientism and economism of industrial agriculture, a sense of the process and experience of identification with the farm and the beings on the farm, an awareness of alternative methodologies and epistemologies, and an explicit role for values and spirit. The end result of this study is a theory, transpersonal agroecology (TPAE), that conceptualizes the commonalities of these alternative agricultural theorists and thus opens a discussion about the deeper and more human aspects of sustainable agriculture and provides a framework with which to guide such a discussion.
The enterprise of bringing to light the transpersonal aspects of alternative agricultural theory could be undertaken in numerous ways. For the purposes of this article, several seminal texts from the field of sustainable agriculture and from the past 100 years were chosen. Two main criteria were used to select theorists and texts.

First, selected individuals contributed in some way to shaping actual agricultural practices. Steiner has a peculiar place in this group of selected theorists, given that he was not an agriculturalist and that any clarifications about biodynamics practice were thwarted by his death a year after his lectures. Therefore, Koepf, Pettersson, and Schaumann (1976) were used here in order to show a theory in action. Also, Bailey might be a new name to many people, even those aware of some of the history of sustainable agriculture. Bailey, Dean of Agriculture at Cornell University from 1903 to 1913, is credited with being a pioneer of the national Extension Service, and was appointed Chairman of the National Commission on Country Life by president Theodore Roosevelt in 1908 and author of its final report in 1909 (Minteer, 2006; Peters, 2006).

Second, selected individuals were ones representing more contemporary voices, particularly voices of farmers and leaders in the field of sustainable agriculture. Aldo Leopold appears to be the odd man out in this group. He neither created an alternative agricultural practice nor was even a farmer. Leopold was included because he discussed farming at length in *A Sand County Almanac*, which fills a gap in the time line of the other selected authors. Also, Leopold is widely recognized as the forerunner of modern environmental ethics, and because TPAE will obviously contribute to that discipline, his inclusion here was necessary. Finally, it should be noted that many of the terms included here were used as synonyms. For instance, *alternative agriculture*, *sustainable agriculture*, and *agroecology* were all used more or less interchangeably.

TPAE draws its inspiration from TE as defined by Warwick Fox (1990). Fox quoted various deep ecology (DE) thinkers to show how there is an even deeper level uniting the members of the DE family. Colloquially, DE is “deep” because it asks questions about the assumptions that typify modern thinking. Philosophically, deep ecologists have articulated a set of basic principles and have noted the various sources from which they draw.

However, Fox noticed that many deep ecologists also share similarities of other kinds—similarities not articulated in the literature. He pointed out that most deep ecologists are against issuing moral “oughts” and are for human “self-realization” as a condition of DE. Drawing on the discipline of transpersonal psychology, Fox argued that it would make more sense to call the discipline of DE *transpersonal ecology* because most adherents of DE reveal a transpersonal
awareness in articulating a sustainable human relationship to the natural world.

_Transpersonal_ was a better term for Fox for a number of reasons. First, it has explicitly psychological ties, which he thought better expressed the nature of DE because Naess (the DE founder) articulated it as a psychologically, rather than axiologically, based approach to the understanding of the human relationship to the natural world. Second, the term can be used in a number of etymologically appropriate ways: as beyond, as changing thoroughly, and as transcending. Fox’s key concept was identification, through which an individual widens the sense of self through ecological awareness to include more and more of the natural world. Therefore, Fox could say that TE goes beyond other forms of ecophilosophy because it has a different sense of self—one that is changed thoroughly as a result of the process of identification—and has transcended the limitations associated with a narrower conception of self. This is significant because a major tenet of DE/TE is that it is not anthropocentric, meaning it does not confer upon humans “unwarranted differential treatment” (Fox, 1990, p. 89). Thus, the particularly Western concept of self as a skin-encapsulated ego separate from and superior to the natural world is left behind, and a more inclusive, big self is embodied.

**Transpersonal Agroecology**

TPAE is similar to TE in several ways. First, the theory is derived through comparing and finding similarities among the quotations of various alternative agricultural theorists. Second, TPAE mirrors TE in that the proponents are united both in opposition and in subscription. Where TE theorists are united in opposition to issuing moral oughts, TPAE theorists are united in opposition to a productionist mentality, and where TE theorists are united in subscription to individuals becoming ecologically self-aware though a process of identification with the natural world, TPAE theorists are focused on farmers becoming ecologically self-aware through the process of identification with the land that they work.

Therefore, to paraphrase the deep ecologist Freya Mathews (Fox, 1990, pp. 85–86), TPAE is concerned with the metaphysics of agriculture. From the point of view of TPAE, what is wrong with industrial agriculture is that it offers the farmer an inaccurate conception of the self. It depicts the personal self of farmers as existing in competition with and in opposition to nature. They thereby fail to realize that if their farming methods destroy the environment, they are destroying what is in fact their larger selves.

To paraphrase Fox (1990, p. 79), who was discussing the deep ecologist John Rodman, TPAE is the view that the sense of self of the farmer can be as expansive as the individual’s identifications and that a realistic appreciation of the ways in which we are intimately bound up with the world around us, especially the farm and the beings on the farm, which inevitably leads to wider and deep identification, and hence alternative modes of farming.
For instance, Rudolf Steiner was of the position that the farmer should be conceived of as a meditator:

Oh, it is very much that he meditates in the long winter nights! He does indeed acquire a kind of method—a method of spiritual perception. Only he cannot express it. It suddenly emerges in him. We go through the fields, and all of a sudden the knowledge is there in us. We know it absolutely. Afterwards we put it to the test and find it confirmed. (Steiner, 1958, pp. 51–52)

Masanobu Fukuoka, in *The One-Straw Revolution*, gave his own take on the Buddhist eightfold path:

Unless people become natural people, there can be neither natural farming nor natural food. In one of the huts on the mountain I left the words, “Right Food, Right Action, Right Awareness” inscribed on a pinewood plaque above the fireplace. The three cannot be separated from one another. If one is missing, none can be realized. If one is realized, all are realized. (Fukuoka, 1978/2009, p. 147)

Liberty Hyde Bailey, in *The Outlook to Nature*, invoked something very similar, noting both action and awareness in the growing of food:

It is all a drama, intense, complex, ever moving, always dying, always re-born. I see a thousand actors moving in and out, always going, always coming. I am part of the drama; I break the earth; I destroy this plant and that, as if I were the arbiter of life and death. I sow the seed. I see the tender things come up and I feel as if I had created something new and fine, that had not been seen on the earth before; and I have a new joy as deep and as intangible as the joy of religion. (Bailey, 1915/2013, p. 79)

In his writing, Wendell Berry directly connected soil and spirit:

It is impossible to contemplate the life of the soil for very long without seeing it as analogous to the life of the spirit. No less than the faithful of religion is the good farmer mindful of the persistence of life through death, the passage of energy through changing forms. (Berry, 1997, p. 86)

Finally, Wes Jackson, in *Becoming Native to This Place*, demonstrated a similar view:

What if we had an ecological worldview as our operating paradigm? An ecological worldview is also an evolutionary worldview. Time-honored arrangements would inform us of what has worked without our running the empirical experiment. Our evolutionary/ecological worldview would inform our decisions, inform our do’s and don’ts in scientific investigations. This is another way of saying that we must turn to nature to inform us, to serve as a reference, must turn our thoughts to building a science of ecology that reflects a consultation of nature. Ecology is the most likely discipline to
engage in a courtship with agriculture as we anticipate a marriage. (Jackson, 1996, p. 25)

**Transpersonal Agroecology: Opposition**

**Productionist Mentality**

For the purposes of this article, the productionist mentality that the TPAE theorists are united against is the one defined by Keller and Brummer (2002) in “Putting Food Production in Context: Toward a Postmechanistic Agricultural Ethic.” In this article, a productionist way of thinking about agriculture was typified by four components. First, the productionist approach is mechanistic, in that it believes that the natural world can best be understood as a machine. Second, because it views nature as just a complex and complicated machine, it does not ascribe intrinsic value to the natural world. Third, it has an accompanying epistemology that separates facts from values, gives credence to only those aspects of reality that can be quantified, and uses science as the only method to solve agricultural problems. Fourth, its quantitative and mechanistic thinking is easily translated into the realm of economics, thus promulgating “an economic model of human–nature interactions” (Keller & Brummer, 2002, p. 265).

As their direct quotes will demonstrate, for TPAE theorists the problematic scientific and economic aspects of the Keller and Brummer definition are too mild. A more accurate explanation of the productionist mentality is that it comprises economism and scientism to the point that economics and science are given weight beyond what they can be shown to deserve (even according to their own individual theories) such that a productionist belief in science and economics becomes a fundamentalist ideology rather than a theory. For instance, Berry (1997, p. 89) wrote that “the discipline of agriculture—the ‘great subject,’ as Sir Albert Howard called it, ‘of health in soil, plant, animal, and man’—has been reduced to fit first the views of a piecemeal ‘science,’ and then the purposes of corporate commerce.”

**Scientism**

There are two facets to scientism (Peterson, 2003). One is methodological, in that science is taken as the only true way to acquire knowledge. The other is ideological, in that scientific understanding is believed to have trumped other disciplines such as ethics or religion. Both kinds of scientism are reflected in the objections of TPAE theorists. I quote from the following theorists by way of illustration:

Bailey:

I preach the near-at-hand, however plain and ordinary, – the cloud and the sunshine; the green pastures; the bird on its nest and the nest on its bough;
the rough bark of trees; the frost on bare thin twigs; the mouse skittering to its burrow; the insect seeking its crevice; the small of the ground; the sweet wind; the silent stars; the leaf that clings to its twig or that falls when its work is done. Wisdom flows from these as it can never flow from libraries and laboratories. (Bailey, 1915/2013, pp. 9–10)

Howard:
The insistence on quantitative results is another of the weaknesses in scientific investigation. It has profoundly influenced agricultural research. … Many of the things that matter on the land, such as soil fertility, tilth, soil management, the quality of produce, the bloom and health of animals, the general management of live stock, the working relations between master and man, the esprit de corps of the farm as a whole, cannot be weighed or measured. (Howard, 2010, p. 211)

Berry:
But under various suasions of profession and personality, this legitimate faith in scientific methodology seems to veer off into a kind of religious faith in the power of science to know all things and solve all problems. … This religification and evangelizing of science, in defiance of scientific principles, is now commonplace and is widely accepted or tolerated by people who are not scientists. (Berry, 2000, p. 19; see also p. 24)

Leopold:
One of the facts hewn to by science is that every river needs more people, and all people need more inventions, and hence more science; the good life depends on the indefinite extension of this chain of logic. That the good life on any river may likewise depend on the perception of its music, and the preservation of some music to perceive, is a form of doubt not yet entertained by science. (Leopold, 1949, p. 154; see also p. 138)

Steiner described the scientistic fixation upon the physical in this way:

You see a magnetic needle. You discern that it always points with one end approximately to the North, and with the other to the South. You think, why is it so? You look for the cause, not in the magnetic needle, but in the whole Earth, inasmuch as you assign to the one end of the Earth the magnetic North Pole, and to the other the magnetic South.

Anyone who looked in the magnet-needle itself for the cause of the peculiar position it takes up would be talking nonsense. You can only understand the direction of the magnet-needle if you know how it is related to the whole Earth. Yet the same nonsense (as applied to the magnetic needle) is considered good sense by the men of to-day when applied to other things…. The several spheres of modern life have suffered terribly from this, and the effects would be even more evident were it not for the fact that in spite of all
the modern sciences a certain instinct still remains over from the times when men were used to work by instinct and not by scientific theory. (Steiner, 1958, pp. 19–20)

Here is some perspective from Fukuoka, who was referred to by Berry as “a scientist who is suspicious of science” (Fukuoka, 1978/2009, p. xiii):

But scientific truth can never reach absolute truth, and philosophies, after all, are nothing more than interpretations of the world. Nature as grasped by scientific knowledge is a nature which has been destroyed; it is a ghost possessing a skeleton, but no soul. Nature as grasped by philosophical knowledge is a theory created out of human speculation, a ghost with a soul, but no structure. (Fukuoka, 1978/2009, p. 125; see also p. 113)

Early on in Becoming Native to This Place, Jackson took up the fact–value divide that pervades Western culture, in which science and the facts it discovers are believed to be value free and therefore closer to true knowledge: “But the reality is that our values are able to influence the genotype of our major crops and livestock” (Jackson, 1996, p. 21). He went on to talk about “Chicago Board of Trade genes,” or “fossil fuel wellhead genes,” meaning that the values that have led us to industrialize agriculture and create a food system based on fossil fuels have directly affected the breeding of plants and animals, so that their very genome reflects the ideology that went into their creation. Jackson then contrasted these industrial agriculture values and genes with a story about a Native American woman who saved both the large and small ears of corn because “corn is a gift of the gods and to discriminate against the small in favor of the large would be to show a lack of appreciation for the gift. What she was doing, in genetic terms, was maintaining genetic diversity. Values dictate genotype” (p. 22).

Where Jackson eventually settled, with the help of Douglas Sloan, was on the idea that there is a “scientific and technological worldview” that is quantitative and mechanistic and that our culture has expanded this worldview beyond its discipline “to the point that it has become our all-encompassing picture of the universe as ultimately dead, mechanical, meaningless” (Jackson, 1996, p. 38). This is essentially scientism which, when coupled with the institutions of today, “has been thousands of times more ecologically destructive than the church–state alliance ever was” (p. 109). However strong his criticism, Jackson made sure to point out that “none of this suggests an end to science so much as an end to our emphasis on science only as we now know it” (p. 41).

**Economism**

Economism is analogous to scientism: where scientism believes that the scientific method provides the only recourse to true knowledge, economism is the ideology where “the needs and values of business have come to dominate society” (Uhl, 2004, p. 240).
Though profuse in his opposition to scientism, Fukuoka dealt with economics sparingly. In one place he gave an example of when an economic advantage becomes a social disadvantage for the farmer: “The competition then brings the prices down, and all that is left to the farmer is the burden of hard work and the added costs of supplies and equipment. Now he must apply the wax” (Fukuoka, 1978/2009, p. 87).

In The Holy Earth, Bailey commented on economics in much the same way that Jackson commented on science—by placing it in proper perspective: “The morals of land management is [sic] more important than the economics of land management” (Bailey, 1915/1988, p. 35). Bailey also wrote:

We shall learn how to distribute the satisfactions in life rather than merely to assemble them. Before this time comes, we shall have passed the present insistence on so-called commercial efficiency, as if it were the sole measure of a civilization, and higher ends shall come to have control.” (Bailey, 1915/1988, p. 45; see also p. 52)

Jackson, with the gift of historical perspective, had an additional critique to add to the charges against economism. Besides noting that “more modern economists will have to admit that much of what is important to the life-supporting system and culture does not compute” (Jackson, 1996, p. 112), Jackson was acutely aware of “economic imperialism” (p. 100) operating in agriculture because “economic anxiety has increased and preoccupation with economic issues is higher than ever” (p. 105). This awareness of the assumptions of economism led him to conclude that “we should not expect sustainable agriculture to exist safely as a satellite in orbit around an extractive economy” (p. 26).

When reading Howard, it is difficult to divorce his disdain of scientism from his disdain of economism, since he was so aware of the ways that the two work together against what he perceived to be the real goals of agriculture. Consider the following:

Agricultural research has been misused to make the farmer, not a better producer of food, but a more expert bandit. He has been taught how to profiteer at the expense of posterity—how to transfer capital in the shape of soil fertility and the reserves of his live stock to his profit and loss account. (Howard, 2010, p. 213; see also 1947/2006, pp. 31–32)

The slow poisoning of the life of the soil by artificial manures is one of the greatest calamities which has befallen agriculture and mankind. The responsibility for this disaster must be shared equally by the disciples of Liebig and by the economic system under which we are living. (Howard, 2010, p. 236)

However, in some places, the focus of his derision was clear:

But economics has done a much greater disservice to agriculture than the collection of useless data. Farming has come to be looked at as if it were a
factory. Agriculture is regarded as a commercial enterprise; far too much emphasis has been laid on profit. ... The nation’s food in the nature of things must always take first place. The financial system, after all, is but a secondary matter. Economics therefore, in failing to insist on these elementary truths, has been guilty of a grave error of judgment. (Howard, 2010, p. 213)

Leopold wrote:

The “key-log” which must be moved to release the evolutionary process for an ethic is simply this: quit thinking about decent land-use as solely an economic problem. Examine each question in terms of what is ethically and esthetically right, as well as what is economically expedient. (Leopold, 1949, p. 224)

In that same text Leopold also wrote, “The fallacy the economic determinists have tied around our collective neck, and which we now need to cast off, is the belief that economics determines all land-use. This is simply not true” (Leopold, 1949, p. 225).

Berry is similar to Howard in that he sees the negative implications of the mutually reinforcing mentalities of scientism and economism:

The collaboration of boomer science with boomer mentality of the industrial corporations has imposed upon us a state of virtually total economy in which it is the destiny of every creature (humans not excepted) to have a price and to be sold. In a total economy, all materials, creatures, and ideas become commodities, interchangeable and disposable. (Berry, 2000, p. 132)

Finally, Steiner also took exception to economism. He stated it most bluntly when he wrote this passage:

No one can judge of Agriculture who does not derive his judgment from field and forest and the breeding of cattle. All talk of Economics which is not derived from the job itself should really cease. So long as people do not recognize that all talk of Economics—hovering airily over the realities—is merely empty talk, we shall not reach a hopeful prospect, neither in Agriculture nor in any other sphere. (Steiner, 1958, p. 19)
it is not properly transpersonal, in that it still focuses on an individual’s conscious intentions, whereas the transpersonal lies outside of conscious intentions (Stavely & McNamara, 1992).

But even when taking Fox’s definition of identification as the sole criterion for justifying TPAE, as opposed to enlarged possibilities, there is still sufficient evidence, and this exercise serves as a good introduction. Again, Fox characterized the three paths to expanding self-identity as personal, cosmological, and ontological. Personal identification “refers to experiences of commonality with other entities that are brought about through personal involvement with these entities” (Fox, 1995, p. 249). Ontological identification “refers to experiences of commonality with all that is[,] that are brought about through deep-seated realization of the fact that things are” (pp. 250–251). Cosmological identification “refers to experiences of commonality with all that is that are brought about through deep-seated realization of the fact that we and all other entities are aspects of a single unfolding reality” (p. 252).

As these three forms of identification pertain to TPAE, both the personal and the ontological match up well with TE. The cosmological, on the other hand, can be delineated into three nuanced sub-categories—a cosmological identification (a) where there is no distinction between self and world, (b) through the realization that all things are interconnected, and (c) through the understanding that individuals “belong” to the environment.

In his writing, Fukuoka demonstrated a “no-distinction” cosmological identification:

*My thinking on natural food is the same as it is on natural farming. … If people will acquire food through “no-mind”** [emphasis added] even though they know nothing at all about yin and yang, they can attain a perfect natural diet. **A Buddhist term which describes the state in which there is no distinction between the individual and the “external” world [emphasis added]. (Fukuoka, 1978/2009, pp. 127–128)

Berry wrote on “interconnected” cosmological identification:

For some time now ecologists have been documenting the principle that “you can’t do one thing”—which means that in a natural system whatever affects one thing ultimately affects everything…. The Creation is one; it is a uni-verse, a whole, the parts of which are all “turned into one.” (Berry, 1997, p. 46; see also p. 22)

Bailey and Steiner both wrote on “belonging” cosmological identification. Bailey did so with regard to the “countryman,” as opposed to the “city man,” where the countryman does not think of the qualities, or “features” of the country, because “all the features are his; he escapes neither weather nor season, since he belongs to the country as much as the trees and fields belong to it” [emphasis added] (Bailey, 1915/2013, p. 69). Steiner uses similar phrasing but addresses the nature of all humanity:
As human beings we cannot truly say that we are separate. We cannot sever ourselves. *We are united with our surroundings—we belong to our environment* [emphasis added]. As my little finger belongs to me, so do the things that are around us naturally belong to the whole human being. (Steiner, 1958, p. 49)

Berry wrote on personal identification:

On the other hand, an agriculture using nature, including human nature, as its measure, would approach the world in the manner of a conversationalist. … On all farms, farmers would undertake to know responsibly where they are and to “consult the genius of the place.” … *The use of the place would necessarily change, and the response of the place to that use would necessarily change the user. The conversation itself would thus assume a kind of creaturely life, binding the place and its inhabitants together, changing and growing to no end, no final accomplishment, that can be conceived or foreseen* [emphasis added]. (Berry, 1990, pp. 208–209)

Finally, Leopold spoke about ontological identification:

We know now what was unknown to all the preceding caravan of generations: that men are only fellow-voyagers with other creatures in the odyssey of evolution. This new knowledge should have given us, by this time, a *sense of kinship with fellow-creatures*; a wish to live and let live; a *sense of wonder over the magnitude and duration of the biotic enterprise* [emphasis added]. (Leopold, 1949, p. 209)

As the field of TPAE is cultivated and begins to bear fruit, it may well turn out that there are many more paths to identification than those laid out above. The purpose here is not to make the claim that the short list above constitutes the definitive role that identification plays in TPAE. Instead, it should be seen for what it is: the use of a previously successful framework applied to a new field in an effort to show a novel finding and to suggest further exploration. Thus, it is enough to say that in TPAE, as it is being first articulated, the alternative agriculture theorists are cognizant of the role that personal, ontological, and cosmological identification play in sustainable agriculture.

**Process**

When explaining the second component of TE—the subscription to self-realization through identification—Fox used Naess to say that the importance of the concept lies in the process of identification, in which identification is more than a similarity; it is a commonality.² For TPAE, what is important is not only the concept of commonality but also the explicit nature of identification being a *process*. This distinction is important because, for farmers, the process is going to be the specific farming practices that engender this awareness of commonality and the feedback loop that this awareness creates. Part of the loop has implications for modifying the farming practices.
The other implication is for the farmer. TPAE theorists make explicit the developmental nature of this new way of relating to the natural world, and some go so far as to directly connect the growth of the human individual with the kind of relationship the farmer has with the land. Finally, many theorists make this process of development explicit by noting that it is taking place within the daily activities and existence of the farmer. It is a way of being of in the world that develops over time through a new way of relating and understanding.

Fukuoka was particularly attuned to the role of development in the relationship between farmer and land: “Ultimately, it is not the growing technique which is the most important factor, but rather the state of mind of the farmer” (Fukuoka, 1978/2009, p. 46), and, “The ultimate goal of farming is not the growing of crops, but the cultivation and perfection of human beings” (p. 119).

Bailey is very similar to Fukuoka when it comes to the role that development plays in his theory—it is huge. In fact, The Holy Earth seems to be written specifically to advocate the moral and spiritual development of the farmer in relationship to the land. He wrote that “one does not act rightly toward one’s fellows if one does not know how to act rightly toward the earth” (Bailey, 1915/1988, p. 2; see also p. 1). He then went on to say:

The living creation is not exclusively man-centered: it is bio-centric. We perceive the essential continuity in nature, arising from within rather than from without [emphasis added], the forms of life proceeding upwardly and onwardly in something very like a mighty plan of sequence, man being one part in the process [emphasis added]. (Bailey, 1915/1988, p. 23; see also p. 24)

Bailey was also aware that this process occurred through the daily experience of the farmer, where “the reverential attitude is the result of our feeling toward the materials of life,– toward the little things and the common things that meet us hour by hour” [emphasis added] (Bailey, 1915/1988, p. 88). In addressing all three aspects of the process of identification—the implications for the farmer and farm, inner development, and the quotidian nature of the process, Bailey could be characterized as holistic in his understanding of just how this process of identification unfolds.

If one were to enumerate all of the philosophical benefits of A Sand County Almanac, surely one positive would be Leopold’s capacity to show how the power of human worldviews is manifested through day to day situations. This would put him on par with Bailey in terms of the holistic nature of his thinking. However, Leopold’s emphasis on the everyday is diffuse throughout the work, so the following two quotations focus on his awareness of the implications of worldviews for farmer and land and the developmental process, respectively. Leopold wrote:

The cowman who cleans his range of wolves does not realize that he is taking over the wolf’s job of trimming the herd to fit the range. He has not
learned to think like a mountain. Hence we have dustbowls, and rivers washing the future into the sea. (Leopold, 1949, p. 132)

These two farmers have learned from experience that the wholly tamed farm offers not only a slender livelihood but a constricted life. They have caught the idea that there is pleasure to be had in raising wild crops as well as tame ones. (Leopold, 1966, p. 203)

Koepf et al. give an example of where the implications, “new possibilities,” are explicitly tied to “daily work”:

Over and above their [the forces within plants, the soil, and the universe] actual application they open for the spirit in man new possibilities of achieving a clear and conscious relationship to the world of forces appearing in living organisms. In turn the daily work is given more of a meaning and an aim. (Koepf et al., 1976, p. 31)

In addressing the processual quality of identification in TPAE, Jackson illuminates the recursive nature of the developmental aspect, in a way that mirrors Berry’s characterization of personal identification in the previous section:

I am not talking about how we can load up with different kinds of ideas, different thoughts that various people have had about the world. I am talking about how, as Sloan puts it, the “quality of consciousness” itself can change, and how this affects what we can experience and know of the world. (Jackson, 1996, p. 39; see also pp. 107–108)

Finally, as noted above, Berry is keen on the iterative element of development, which should have an enormous impact on daily living. For instance, Berry is of the position that the “mentality of conservation” (Berry, 1997, p. 28) is divided between protection and production. In Berry’s estimation, a third way has not been articulated because conservation “is not yet sensitive to the impact of daily living upon the sources of daily life [emphasis added]” (Berry, 1997, p. 28). Elsewhere, Berry makes a point of equating the “good” with the everyday:

Good work is not just the maintenance of connections—as one is now said to work “for a living” or “to support a family”—but the enactment of connections. It is living, and a way of living; it is not support for a family in the sense of an exterior brace or prop, but is one of the forms and acts of love. (Berry, 1997, p. 139)

Thus, many TPAE authors felt it necessary to bring into focus the processual nature of identification, with implications for the farm and farmer, with an awareness toward human development, and an understanding that this process gets embodied mainly through day to day life on the farm. While, there may be some debate within transpersonal disciplines about the nature of ecological or
spiritual identity and development, with an eye toward the possibility of a
totalizing conversion experience, it seems clear that in TPAE, it is not a one-
time experience but a way of being for the farmer in relationship to the farm,
which affects the farmer and has effects for the farm, and is continually refined
on daily, seasonally, and yearly bases.

**Transpersonal Agroecology: Contribution**

A final aspect of TE that is necessary in the discussion of TPAE is Fox’s (1995,
p. 199) assertion that TE is not subordinate to transpersonal psychology (TP).
This is true of TPAE in two ways: (a) TPAE is not subordinate to TE, and (b)
TPAE is also not subordinate to TP. There are important aspects of TPAE that
are mentioned tangentially in the other two theories. The fact that they may
not be central concepts in TE or TP in no way diminishes these concepts’
importance for TPAE.

**Values**

For instance, Fox did not talk very much about values in delineating his theory
of identification. However, Stavely and McNamara (1992), in summarizing
Fox’s position, characterized it as a “reorientation of value theory from
instrumental and intrinsic value explanations to ecological values as
axiomatic” (p. 203). Most TPAE theorists raise questions about values in
terms of the misguided values of modernity, exhibiting a transpersonal
orientation that becomes even clearer as other aspects of transpersonal theory
are overlaid on the agricultural theorists’ concern for values.

These critiques of modern values, or lack thereof as the case may be, and their
relationship to agriculture, comes in two forms: (a) a simple critique where
values are forgotten or lost and (b) a critique that also advocates new values.
Fukuoka and Koepf et al.’s critiques fall in the first category. Fukuoka wrote,
“Another problem is that spiritual and emotional values are entirely forgotten,
even though foods are directly connected with human spirit and emotions”
(Fukuoka, 1978/2009, p. 140). Koepf et al. wrote:

The crisis, rather, is a structural one, and includes the single farm and the
positioning of farming in the social fabric. ... Finally, the crisis includes
man. When his interest is absorbed in a onesided way by economics and
technology, important human values are lost. The ethical foundations of the
farming profession remain undernourished. (Koepf et al., 1976, p. 398)

Jackson also included economics in his critique of modern values but he ties
that critique to the hope that a new economics will follow from a new way of
being in the world:

An extractive economic system to a large degree is a derivative of our
perceptions and values. But it also controls our behavior. We have to loosen
its hard grip on us, finger by finger. I am hopeful that a new economic system can emerge from the homecomer’s effort—as a derivative of right livelihood rather than of purposeful design. (Jackson, 1996, p. 99)

Leopold echoes Jackson in making explicit the idea that value change cannot come from within a paradigm, but the object of derision here is specifically conservation education:

It defines no right or wrong, assigns no obligation, calls for no sacrifice, implies no change in the current philosophy of values. In respect of land-use, it urges only enlightened self-interest. Just how far will such an education take us? (Leopold, 1949, pp. 207–208)

Finally, Berry (1997) took a different tack than the economics of Jackson or the conservation education of Leopold. Berry addressed “the machine metaphor” which, “in modern agriculture…is allowed to usurp and wipe from consideration not merely some values, but the very issue of values” (p. 91). He went on to say, “the good use of such land (use that is at once full, efficient, and careful) requires something altogether different and is probably unthinkable in terms of our present agricultural economy and cultural values” (p. 186).

Whether simply leveling a critique, or coupling that critique with a new vision, as it pertains to economics, education, or language, TPAE seeks to bring an understanding of values into alternative agriculture practices as an integral part of what truly sustainable farming will be.

Alternative Methodologies and Epistemologies

TPAE theorists are explicitly interested in alternative methodologies and epistemologies for two reasons, both of which have transpersonal implications. First, they react against the fundamentalism associated with the methodology and epistemology of the productionist mentality. Second, they advocate a theory of knowledge that goes beyond rationality and intellect, including methodologies like poetry, art, and conversing with nature, as well as epistemologies which honor feeling, sensitivity, and religious knowing. This second part, concern with alternatives, is particularly transpersonal in that, in Walsh and Vaughan’s (1993b) estimation, “the transpersonal disciplines stand alone in adopting an eclectic epistemology that seeks to include science, philosophy, introspection, and contemplation” (p. 205). This openness to alternatives across methodological and epistemological boundaries is important for the next section of this article, where the spiritual dimensions of TPAE are explored. By default, a practitioner of these alternative agricultural practices must diverge from a reductionistic, mechanistic, materialistic epistemology in order for the spiritual to play a role.

Fukuoka invoked alternative epistemologies in the two ways highlighted earlier. On one hand, he pointed to the inability of the intellect to provide total knowledge, particularly as it pertains to scientism. On the other hand, he pointed to those things that he believes provide the necessary larger picture:
Scientists think they can understand nature...But I think an understanding of nature lies beyond the reach of human intelligence. ... Why is it impossible to know nature? That which is conceived to be nature is only the *idea* of nature arising in each person’s mind. (Fukuoka, 1978/2009, p. 25; see also pp. 154–155)

Fukuoka went on to tell a story, relative to insect control and who should have a say in how it is practiced, about spiderwebs covering his fields overnight to the point that a field-hand rushed to Fukuoka’s house to ask him if he covered his fields in a net. He closed the paradigm-shifting story by saying, “The spectacle is an amazing natural drama. Seeing this, you understand that poets and artists will also have to join in the gathering” (Fukuoka, 2009, pp. 27–28). In ruminating on this theme, Fukuoka later included philosophers and “men of religion” on the guest list (Fukuoka, 2009, p. 28).

In his critique, Bailey also included the limitations of the intellect, but he emphasized enlarging the scope of what is important in making good agricultural decisions, if not good life decisions. Like Fukuoka, he included the heart, writing how “soft green things push up out of the earth, growing by some sweet alchemy that I cannot understand but that I can feel” (Bailey, 1915/2013, p. 78). In another passage he wrote, “The old-time formal and literary attitude, with facility in a particular group of academic subjects, is much to be prized; but sensitiveness to life is the highest product of education [emphasis added]. (Bailey, 1915/2013, p. 99)

In these quotations from *Outlook*, which preceded *Holy Earth*, Bailey seems to be giving voice to the inkling of heart-centered alternative epistemologies. In *Holy Earth*, Bailey took this concept as a given; there are examples of second-level thinking seemingly derived from these alternative, spiritual, epistemologies. For instance, “An oak tree is to us a moral object because it lives its life regularly and fulfills its destiny” (Bailey, 1915/1988, p. 12). Here he was most explicit, stating that to take nature spiritually isn’t a form of dogma but is a form of objectivity available to everyone: “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 and has good digestion” (p. 52).

It would benefit the reader to reflect on this for a moment. While this last quotation is in a section on “alternative” methodologies and epistemologies, Bailey does not consider “the good spiritual reaction to nature” at all alternative; in point of fact, he thinks it is “normal” and is an “objective experience” (p. 52). Besides being in stark contrast to what is currently considered “normal” and “objective” in agriculture today, this position is important to note because the epistemology of relatedness (through feeling, emotion, or sensitivity) is shared by so many of the theorists, to such a degree, that both Berry (1997) and Koepf et al. (1976) used the same terminology as Bailey—the necessity of sensitivity:

The use of land cannot be both general and kindly. ... To treat every field, or every part of every field, with the same consideration is not farming but
industry. Kindly use depends upon intimate knowledge, the most sensitive responsiveness and responsibility. As knowledge (hence, use) is generalized, essential values are destroyed. As the householder evolves into a consumer, the farm evolves into a factory—with results that are potentially calamitous for both. (Berry, 1997, p. 31)

Nevertheless, it is also important to be able to feel one’s way into the processes of nature. It is then important to form thoughts that can penetrate into the structure of nature for such thoughts will stimulate rather than banish the appropriate sensitivity. (Koepf et al., 1976, p. 125)

Leopold expressed both a critique and advocated an alternative, writing that “nevertheless, there are many discontents in agriculture which seem to add up to a new vision of ‘biotic farming’” (Leopold, 1949, p. 222), and “the evolution of a land ethic is an intellectual as well as emotional process” (p. 225).

So too did Jackson, who with the benefit of time and perspective, was succinct and direct in his analysis of current methods and his proposal for the future: “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” (Jackson, 1996, p. 25), and, “If we can [risk looking downward from the ecosphere and seeing nature’s ecosystems in the mosaic as primary objects of study], then we can fashion a new research agenda for agriculture featuring a dialectical interaction with nature and, ultimately, a conversation with nature” (pp. 111–112).

Along with Berry’s contribution to the concept of an epistemology of relatedness above, he also leveled critiques and offered an additional alternative: “To define knowledge as merely empirical is to limit one’s ability to know; it enfeebles one’s ability to feel and think” (Berry, 2000, p. 103; see also p. 101; 1997, p. 48). Berry’s alternative, which could be shown to correspond to an epistemology of relatedness, is the belief that “religious faith may be a way of knowing things that cannot otherwise be known,” (Berry, 2000, p. 28) over and against the scientistic, narrow “definition of reality” that E.O. Wilson puts forward as the only legitimate possibility.

Nowhere is the significance of these alternatives better articulated than by Koepf et al. The following passage serves not only as a conclusion to this section, with its summary of the necessity of seeing the limits of a scientistic framework and its support for an alternative methodology, but also as a culmination of previous sections. Notice how personal development is mentioned, as is an awareness of the recursive nature of the process. Indeed, this quote offers a nice segue into the final section of the article on Spirit:

Natural science has as far as possible detached man from knowledge in order to reach objective results. But in the processes described here man works on himself in order to become an ever more complete instrument for understanding nature. In doing so he begins to meet layers of reality that
must remain incomprehensible to one who proceeds only by measuring, counting and reckoning. He then experiences more consciously something belonging to the most ancient experiences of mankind: that in natural beings themselves something lives and works that can only be comprehended if he compares it with his own will and indeed grasps it with his own will.

This is the path that is likely to suggest itself to the farmer, for he constantly experiences himself as working in nature out of his will. He has to adapt to conditions and yet he can transform them. (Koepf et al., 1976, pp. 200–201)

**Spirit**

Spirit and a sense of the numinous also exist in TPAE writings, appearing in a way that forgoes strict religious affiliation. This too is a shared attribute of transpersonalism. One way of looking at it is through Walsh and Vaughan’s attempt to define the transpersonal realm. They specifically noted that transpersonalism has a relationship to religion, albeit a complicated one. They began with a “simple definition of religion” as “that which is concerned with, or related to, the sacred” (Walsh & Vaughan, 1993a, p. 5). They went on to say that the overlap occurs where transpersonal experiences are religious and religious experiences are transpersonal. This definition, in which an individual has an experience of the sacred outside the boundaries of institutionalized religion, matches almost exactly the accepted definition of a spiritual experience, which also matches much of the writings of the TPAE theorists. For example Fukuoka wrote:

So for the farmer in his work: serve nature and all is well. Farming used to be sacred work. When humanity fell away from this ideal, modern commercial agriculture rose. When the farmer began to grow crops to make money, he forgot the real principles of agriculture. (Fukuoka, 1978/2009, p. 113; see also p. 111)

As its name suggests, Bailey’s *The Holy Earth* was directed entirely toward the spiritual relationship between humanity and the earth, and this is especially true for farmers. Even in *The Outlook to Nature*, Bailey was clear about the role of spirit and in particular its relationship to agriculture, and at the end of the book it is possible to see how Bailey’s thinking honed in on the spiritual in a way that gave birth to *The Holy Earth*:

The countryman’s training, whether in home or school, should be such as to intensify his spiritual reactions. There is a danger that we miss the reverential attitude toward life…

One stimulates it in himself only as he feels that the earth is holy and that all the things that come out of the earth are holy….Such an attitude of mind as inclines one to pause to listen to a bird’s song (even though he may not stop his work), to give more than a passing glance to a potato plant, to inhale some deeper draught of the fragrance of new-plowed land, will produce in
him a sweet seriousness that will stand him in good stead in stress and strain, and will much reinforce his spiritual stability. (Bailey, 1915/2013, pp. 87–88; see also pp. 80, 189)

Given the above, in relation to the preceding sections of this article, it is easy to see the “trans” nature of the transpersonal. This quotation could easily have been included in the alternative epistemology section because Bailey here is talking about “the reverential attitude toward life” as a learning outcome of proper agricultural training. Furthermore, it could also have been included in the process section with its many references to seemingly mundane agricultural experiences (like looking at potato plants or smelling new plowed land) as playing a role in reinforcing the farmers “spiritual stability.”

While the theme of the importance of spirituality and religion, again with regard to nature and agriculture, filled the majority of _The Holy Earth_, in this text Bailey also introduced philosophical, practical, and moral implications, which he used to the same effect:

The sacredness to us of the earth is intrinsic and inherent. It lies in our necessary relationship and in the duty imposed on us to have dominion, and to exercise ourselves even against our own interests. We may not waste that which is not ours. To live in sincere relations with the company of created things and with conscious regard for the support of all men now and yet to come, must be of the essence of righteousness. (Bailey, 1915/1988, p. 11; see also pp. xi, 20, 78)

Here, Bailey uses terms like “intrinsic” and “inherent,” which came with their own weight at the time that he wrote them, but contain even more now with the decades of debate of these terms in environmental philosophy. But he makes these concepts practical by relating them to “our necessary relationship” while at the same time making them moral by adding that we should adhere to this understanding “even against our own interests.” That is the power of the spiritual: to contain the religious, moral, philosophical, and practical arts within one frame.

Few are better at simultaneously containing the religious, moral, philosophical, and practical arts than Wendell Berry. Berry expressed himself on spirituality in agriculture when writing “but [farming] is also a practical religion, a practice of religion, a rite. By farming we enact our fundamental connection with energy and matter, light and darkness” (Berry, 1997, p. 87; see also pp. 11, 131). He also stated:

The “drudgery” of growing one’s own food, then, is not drudgery at all….It is—in addition to being the appropriate fulfillment of a practical need—a sacrament, as eating is also, by which we enact and understand our oneness with the Creation, the conviviality of one body with all bodies. (Berry, 1997, p. 138)

To bring Leopold into a section on spirit is to be walking a paradoxical tightrope. On one hand, Curt Meine, Leopold’s biographer, stated that
Leopold was “reticent on matters of the spirit” (as cited in Pryor 2011, p. 487). On the other hand, Leopold’s daughter called him “the most religious person I ever knew” (Van Horn, 2011, p. 406). While A Sand County Almanac is peppered with religious references, like the “Mosaic Decalogue” (Leopold, 1949, p. 202), one would be hard pressed to find Leopold using overt spiritual language or concepts in arguing his case. One important exception (see also Leopold, 1949, p. 210) is a story that he tells about an atheist boy who ‘converted’ when confronted with “a hundred-odd species of warblers” (Leopold, 1966, p. 230). Nothing but the spiritual could grant an understanding of such beauty: “I dare say this boy’s convictions would be harder to shake than those of many inductive theologians” (Leopold, 1966, p. 231). What makes this story so interesting is that Leopold’s brother, Frederick, suggested that it was likely that Aldo was writing about himself (Swan, 2010). This story, and the possible autobiographical nature of it, goes a long way towards describing the deep spiritual roots of Leopold’s land ethic, and in turn, the spiritual roots of TPAE.

Finally, turning to Steiner, there is another spiritual story that bears telling: the very origins of biodynamics. It appears that this method of agriculture was Steiner’s answer to the series of questions posed by an agricultural associate, Ehrenfried Pfeiffer.

[Steiner] had been speaking of the need for a deepening of esoteric life, and in this connection mentioned certain faults typically found in spiritual movements. I then asked, “How can it happen that the spiritual impulse, and especially the inner schooling, for which you are constantly providing stimulus and guidance bear so little fruit? Why do the people concerned give so little evidence of spiritual experience, in spite of all their efforts? Why, worst of all, is the will for action, for carrying out these spiritual impulses, so weak?” …Then came the thought-provoking and surprising answer: “This is a problem of nutrition. Nutrition as it is to-day does not supply the strength necessary for manifesting the spirit in physical life. A bridge can no longer be built from thinking to will to action. Food plants no longer contained the forces people need for this.” A nutritional problem which, if solved, would enable the spirit to become manifest and realize itself in human beings!…This puts the Koberwitz agricultural course in proper perspective as an introduction to understanding spiritual, cosmic forces and making them effective again in the plant world. (Steiner, 1958, pp. 7–8; see also Koepf et al., 1976, p. 24)

This quotation also puts the role of spirit in proper perspective: whether it is Leopold’s land ethic, Steiner’s biodynamics, or Fukuoka’s natural farming, spirit is instrumental in undertaking a truly sustainable agriculture.

**CONCLUSION**

The conceptualization of TPAE and its recoupling with the practices of sustainable agriculture are of great importance. As has been shown, TPAE
Theorists not only put forward alternatives to the unsustainable practices of industrial agriculture but also challenge the productionist mind-set. Unfortunately, what is taught and undertaken as sustainable agriculture is mainly its practice; the unsustainable productionist mind-set is left more or less intact.

In the academic context of teaching sustainable agriculture, the cause of this omission might stem from higher education’s reluctance to entertain the spiritual. Since TPAE calls for alternative epistemologies and an acceptance of the spiritual, it tends to challenge “the often-unacknowledged presuppositions that guide higher education and that can stifle the legitimate exploration of our larger human concerns, including what we can call our moral and spiritual concerns” (Zajonc, 2003, p. 50). Shahjahan provided a remarkable analysis of the marginalization of spirituality in the academy. His conclusion was to “dialogue so that we can address the question of spirituality in research from different social locations and spiritual traditions” (Shahjahan, 2005, p. 703). This article is an attempt to start such a dialogue with the discipline of sustainable agriculture.

The economic reasons for ignoring the spiritual in sustainable agriculture are inherent in the economic system itself. Vandana Shiva, a farmer and environmental leader and thinker, noted that “the organizing principles of development based on economic growth render valueless all resources and resource processes that are not priced in the market and are not inputs to commodity production” (Shiva, 2005, p. 49). C. A. Bowers, ecojustice educational theorist, stated that “one of the hallmarks of modernization has been the shift in market relationships from a peripheral though essential aspect of community life to the dominant focal point of human interaction” (Bowers, 2001, p. 159). In agriculture this development has taken the form of the stereotypical farmer knowing “as much about financing and business accountability as his banker,” in the estimation of former U.S. Secretary of Agriculture Earl Butz (Berry, 1997, p. 33). Therefore, most farmers, even ones interested in alternatives, are tied up in a system where their primary thinking is done through the lens of business and where their intimate relationship with the land is not valued.

As it stands now, sustainable agriculture seems held back. However, if sustainable agriculture, in both discipline and in practice, were to take seriously the ideas of its founders, as they are conceptualized in TPAE, it could more fully deal with what Wendell Berry considered the first disruptive boundary of a practitioner of the productionist mentality: “Its first disruption is in his mind” (Berry, 1997, p. 71).

Notes

1 Additionally, Paul Thompson (Thompson, 1995) has written a book about agricultural ethics that discusses the productionist paradigm, but he separates out the economics, and his treatment of the issue in general has been actively criticized, with even Thompson admitting his shortcomings (Campbell, 1998; Raffensperger, 1998; Thompson, 1998). This paper focuses more on Keller and Brummer’s characterization.
But not to be mistaken for identity, “that I literally am that tree over there, for example” (Fox, 1990, p. 81).

Bailey (as well as the other theorists quoted in the rest of this section) is not unequivocal like Fukuoka, and so italics will be used here (as well as elsewhere in this section).

Here “practitioner of the productionist mentality” is used synonymously with Berry’s concept of the “specialist.”

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