

**Against Cultivation:
On the Dark Side of the Gardening Metaphor for Teaching**
Oded Zipory
Hebrew University of Jerusalem

Abstract

*Perhaps no metaphor for teaching is more dominant than that of gardening. It is commonly associated with student-centeredness, individual flourishing, and a non-oppressive teaching approach. In this article, however, I argue that despite its seeming harmlessness, cultivation metaphors have a darker side that rarely gets attention. As such, educational cultivation is not simply open to various interpretations, but includes a deep, irreducible, and disturbing aspect within both agriculture and within the tradition of western education tradition, namely, that of centralized control in the service of the civilization process. Following mainly the recent book of anthropologist and political scientist James Scott *Against the Grain: A Deep History of the Early States* (2017), and applying it (metaphorically and not) to the question of educational cultivation, I suggest that cultivation excludes, or even eliminates with almost no trace, alternative modes of learning: those uncontrolled, not “domesticated” or which are “wild.” Instead or at least in addition to the long-standing educational metaphor of the garden, I propose the metaphor of the forest as a way to encourage freer, less controlled modes of learning.*

Keywords educational metaphors, cultivation, progress, civilization process

The Importance of Metaphors

In recent scholarship, metaphors are no longer considered just decorative devices but are acknowledged as indispensable tools of thought or even as the expressions of thinking itself (Felski, 2015; Lakoff & Johnson, 1980). Since the metaphor—articulating one thing in terms of another—is necessary for any analogy or comparison, the question “which are the metaphors we use in a certain context?” is of the utmost importance.

Metaphors, including professional ones like the one that will be discussed here, are not just welcomed additions to a conversation and they are not simply representations, original and imaginative as they may be, of some kind of “non-metaphoric” reality. Lakoff and Johnson (1980) have shown that metaphors are much more like the building blocks of our language, thought, and action, than they are a kind of unnecessary ornament. The very fact that it is not easy articulating this point

here without resorting to metaphors already attests to their importance. For Lakoff and Johnson (1980, p. 4), a metaphor is not simply “a device of the poetic imagination” or “a matter of the extraordinary.” It is rather a matter of “ordinary language.” It is “pervasive in everyday life” and so that “getting along perfectly well without metaphors” is quite impossible. For them, “our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature.”

Speaking particularly of education, using metaphors is our way to think about teaching and learning, childhood and growth, and the ends and means of education. Said differently, there is no way of understanding and practicing “education” in itself, without referring to a conceptual structure provided by a metaphor. Therefore, discussing the uses and abuses of specific metaphors for teaching, especially common ones, is to discuss education itself and not mere representations of it. Said differently, there is no way to talk about education (or about almost everything else, for that matter) without using metaphors.

In this paper, I wish to discuss one of the most prominent metaphors for education—the teacher-as-gardener metaphor (Saban, 2004). In general, the educator in this metaphor is focused on providing the right conditions for growth for the student—himself symbolized by the metaphor of a seed or a plant. The teacher is presumed to have no predetermined goals. This is dissimilar to other professional metaphors such as teacher-as-carpenter or teacher-as-engineer, where knowledge of and work towards a preconceived end are a must. Instead, the teacher-as-gardener is understood as open to and respectful of the child’s inner nature. Despite its dominance in educational discourse, there is hardly any critical research of education-as-cultivation metaphors and they are often viewed as obvious expressions of progressive and student-centered pedagogies. I believe accepting this powerful metaphor as beyond critique and as delivering a self-evident positive pedagogical message leads to its stagnation and ultimately might betray its original purposes. This essay is an attempt to counter this ignorance of the metaphor’s origins and disadvantages.

Counter to the popular view of cultivation as a code for “softer” or more progressive pedagogical approaches, I argue that, despite its seemingly harmlessness, the gardening metaphor has a darker side to it that rarely gets attention. As such, it is not like an “open canvas” that allows for various, even conflicting, interpretations, as Mintz (2018, p. 9) concludes in his historical examination of the metaphor, but includes a deep, irreducible, and disturbing aspect within both agriculture and within the tradition of western educational tradition, namely, that of centralized control and coercion in the service of the process of civilization. I wish to show that liking teaching to gardening is both a symptom and an expression of the exclusion of a variety of human experiences, an exclusion that is considered so obvious that it is hardly ever reflected upon. In a similar manner to the ways agriculture and sedentism have excluded other ways of living, cultivation metaphors exclude, or even eliminate with almost no trace, alternative modes of uncontrolled or “wild” learning.

First, I will point to a few of the gardening metaphor's strengths and the reasons for its wide appeal among educators and parents. Then, in the main part of the paper, I present James Scott's (2017) ground-breaking work on the history of the early states, sedentism, and agriculture. Special attention is given to Scott's view of practices of sustenance that were excluded, defined as "barbarian," and ultimately fought against by proponents of civilization and of the idea of Progress.

Following Scott's (2017) insights, I then critically examine the teacher-as-gardener metaphor and point to its connections to questions of control and centralized planning. Analogically, I suggest that a variety of ways to learn and to mature have come to be viewed as irrational, wild and harmful, and therefore were banished from the realm of proper education. Lastly, I propose the forest as an alternative or at least additional metaphor for education. I suggest that the forest as an indirectly cultivated environment that involves the human and non-human, culture and nature, and the planned and the spontaneous, may be a better metaphorical trajectory for education than the long-standing idea of the cultivated garden.

On the Popularity of Cultivation Metaphors

Why is the teacher-as-gardener metaphor so popular? What are the sources of its historical prominence in western education? The majority of researchers who focus on the gardening metaphor see it as expressing a progressive view of education and of student-centered pedagogies. For example, Oxford et al. (1998) contrast gardening with moulding and gate-keeping. Taking a similar approach, White and Smith (1994) distinguish the gardener-teacher from an expert focused on presenting results who views the students as deficient and in need of correction, saying that the former is focused on the diversity of learners and on the plurality of learning paces and styles. Most recently, professor of psychology Alison Gopnik claimed in a best-selling book that the gardener-educator constructs learning as "a varied, flexible, complex, [and] dynamic system" (Gopnik, 2016, p. 19). The gardening metaphor, in short, is nothing less than synonymous with progressive, student-centered, and an anti-authoritarian style of teaching.

On an even more fundamental level, the metaphor captures accurately the natural state of the child as a creature not yet fully developed, organically similar to a seed or a delicate plant to be nurtured and protected. Said differently, the "growth" of a child is not only a metaphor. Both do indeed grow. The student is therefore understood as a natural phenomenon and as such subjected to growth. For example, according to Carol Dweck's famous "growth mindset" theory, given the right conditions the student's young mind is likely to "expand" and grow (2006). The metaphor is powerful exactly because it captures this double nature of the child—organic and spiritual, natural and cultural. The work of Friedrich Froebel (1892 [1826]) exemplifies this double meaning of growth. Gardening for him was a desired activity for children and educators, one in which they connect with the natural world,

learn about the cycle of life and about interdependency between organisms, appreciate beauty, and develop a sense of care about their environment. But it was also a metaphor for the growth of children themselves—they tended to seeds and plants while “being” seeds and plants themselves, hence the use of the word kindergarten. Inspired by the practice of gardening, the teacher is invited to identify with such a caring approach to the student, one based on empathy, attention, and respect for the child’s inner nature instead of aiming for predetermined and standard outcomes. Also, in this view, the child is not regarded as deficient in any way but as truly unique; instead of moulding him or her into the “correct” shape, the gardener-teacher concentrates on affecting the child’s environment—the metaphorical “soil”—so the student will flourish and eventually be able to decide his or her own future. In fact, the verb flourish, as is the word cultivation, is a *dead metaphor* with horticultural or agricultural origins, that is “an idea [that] was once a metaphor, but [...] is no longer metaphorical. [...] One that has become conventionalized and has its own literal meaning” (Lakoff & Johnson, 1980, pp. 211-212).

While educational relationships commonly involve authority and inequality between teacher and student, cultivation metaphors suggest a way out of this hierarchy. Where the teacher-as-engineer or teacher-as-carpenter have a predetermined goal for the student and therefore their teaching may involve an extensive exercise of directions, instructions, and discipline, the teacher-as-gardener is free from standard outcomes and can dedicate her time to nurturing the child, serving mainly intrinsic values and self-development. Authority could still be needed but it would not be central as in teaching towards external goals.

While today the gardening metaphor is associated mainly with child-centered and progressive education, the history of educational “cultivation” is more complex. Cultivation metaphors were used by everyone on the political and ideological spectrum—from liberals to conservative to critical pedagogues—all made their point through the paradigm of natural growth. In his article on the gardening metaphor, Avi Mintz shows that in the past it was understood as implying teacher-centeredness (2018, p. 5) or even authoritarianism (n. 10). However, while Mintz concludes that the gardening metaphor is an “open canvas,” (2018, p. 9) and calls educators and researchers to reflect better on its history and normative implications, I believe that some aspects of the metaphor are shared by both sides—progressive/child-centered educators and “traditional”/teacher-centered educators—and are worthy of examination.

In *Between Man and Man* (1947, p. 89), Buber talks about the teacher-as-gardener metaphor as representing child-centered education. He describes two models for educators—the gardener and the sculptor. The first is focused on the soil, from which when given enough attention, the sprout will blossom, the student will develop. Contrary to this focus on what is within the student, the sculptor-educator is an interventionist model, in which the student is formed by education to fit a

predetermined vision (usually to suit the requirements and expectations of the community). Buber eventually criticizes both educational models because he sees them as one-sided. The gardener model is focused too much on the individual student (child-centered) and the sculptor model is focused too much on the mastery position of the teacher (teacher-centered). Instead, Buber calls for a dialogical approach that is located somewhere in the middle between the two.

While generally agreeing with the dichotomy of child-centered/teacher-centered or constructivist/traditionalist, I believe that Buber views gardening as much more than it truly is. Mintz shows us how the gardening metaphor itself can be used for interventionist educators, so much so, that they should even be considered authoritative (Mintz, 2018, p. 4-5). Using Buber's terms, we can say that the gardener and the sculptor may be more similar than it seems at first—they both have assumptions about the child's potential ("seed" for the gardener, "material" for the sculptor), they both search for transformation of the student ("Growth" for the gardener, "taking shape" for the sculptor), and they are both intentional and planned in their interventions (indirectly for the gardener, directly for the sculptor). Therefore, my critique of educational cultivation, represented among other things by the gardening metaphor, does not assume that cultivation represents a freer or more child-centered education than "opposite" metaphors.

At the center of the cultivation metaphor, whichever interpretation it may receive, stands the student as a seed or a plant to be nourished by the teacher. This relationship assumes care and attention, but it also assumes, perhaps less explicitly, dependency, hierarchy, and control. Therefore, viewing the student as the subject of nourishment also means regarding him as the object of control and, to some extent, as necessarily dependent. This relation between nourishment and control is far from being a simple one, and before examining directly the metaphor of educational cultivation, I will address critiques of the process of civilization, agriculture and (literal) cultivation included. To do so, I shall now present Scott's work (2017) on sedentism, statehood, and the early cultivation of plants.

The Problem With the "Standard Narrative" of Civilization

Throughout most of his scholarship, anthropologist and political scientist James Scott builds a case against the state. In works such as *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (1999), *Weapons of the Weak: Everyday Forms of Peasant Resistance* (1987), and *The Art of Not Being Governed: An Anarchist History of Upland Southeast Asia* (2010) he shows the limitations or even outright futility of planning on a grand scale on the one hand, and the usefulness and creativity of resistance practices on the other. In his last book, *Against the Grain: A Deep History of the Earliest States* (2017), Scott continues his critique of the state at another level, and takes on what he himself describes as a nearly impossible task. He claims that man's move from hunter-gatherer society to sedentary life-style

(sedentism) and agriculture does not represent “progress, civilization, public order, and increasing health and leisure” (Scott, 2017, p. 1) as it is so often, perhaps always, viewed. For Scott, this positive view of sedentism and agriculture as the “march of civilization” (Scott, 2017, p. 9) is nothing less than a myth “conveyed by most pedagogical routines and imprinted on the brains of schoolgirls and schoolboys throughout the world” (p. 9). He also has no illusions as to the power of this myth and admits that “dislodging this narrative from the world’s imagination is well nigh impossible; the twelve-step recovery program required to accomplish that beggars the imagination” (p. 9) The standard narrative of human progress goes something like this:

The move from one mode of subsistence to the next is seen as sharp and definitive. No one, once shown the techniques of agriculture, would dream of remaining a nomad or forager. Each step is presumed to represent an epoch-making leap in mankind’s well-being: more leisure, better nutrition, longer life expectancy, and, at long last, a settled life that promoted the household arts and the development of civilization (Scott, 2017, p. 9).

In its essentials, it was an “ascent of man” story. Agriculture, it held, replaced the savage, wild, primitive, lawless, and violent world of hunter-gatherers and nomads. Fixed-field crops, on the other hand, were the origin and guarantor of the settled life, of formal religion, of society, and of government by laws. Those who refused to take up agriculture did so out of ignorance or a refusal to adapt (Scott, 2017, p. 7).

In other words, according to the standard narrative, the state and early agriculture are understood as attractive magnets, offering luxury, stability, and culture that no hunter-gatherer in his right mind would wish or be able to resist. AbdelRahim (2014) also argues against this myth, claiming that “until the Middle Eastern and Egyptian civilizations conquered Europe, this paradigm for subsistence based on exploitation and consumption had never achieved the global scale that we are experiencing today.”

According to the standard narrative of civilization, alongside safety and stability, education, is also considered an intrinsic good to be found first and foremost in the state. The Hebrew bible concurs with this myth. The Hebrew word for education is *Khinuch* (חינוך), originating from *khanoch*, or in English: Enoch. Enoch was the son of the first biblical murderer Cain. As well remembered, Cain who was a farmer killed his brother Abel, and was punished by banishment to the land of Nod, literally meaning—sentenced to a life of wandering (Genesis, 4:4-16, English Standard Version). As is common in the bible, the punishment was alleviated only in the next generation, and the sanction on sedentism was removed for Cain’s son, Enoch, who is said to found the first-ever city (4:17). What we see in this early myth is a connection between education, sedentism, and violence, or better said, education’s connection

with authoritative regulation of violence. Cain acts violently with no legitimacy from an authority figure or institution, he is punished by a life of wandering, only to be redeemed in later generations with the opposite of wandering—the formation of the first city. While education—pronounced in Hebrew as *khinukh* (חינוך)—has no explicit part in the story, it is named after the founder of the first city Enoch, Cain's son—pronounced in Hebrew as *Khanoch* (חֲנוֹךְ). A strong connection between education and sedentism is implied.

The inevitability of civilization and its utilitarian and moral value are not historically real as much as they are praised and presented as such in later myths, like the one we have just seen. Scott examines recent advances in archaeological and historical research, and he claims that much of the standard narrative is wrong or misleading and should be called into question. Instead, he argues that the first states were not as appealing as they are considered to be, and this is proven by the extremely late appearance of the state following the beginning of domestication. While it was assumed that state formation immediately followed the domestication of certain plants and animals, Scott claims that the “first small, stratified, tax-collecting, walled states pop up only [...] more than four millennia after the first crop domestications.” (Scott, 2018, p. 7) If the state were indeed so appealing and the next natural phase in the march of progress then it should have appeared right after domestication without such a long delay. His explanation is as simple as it is almost ridiculous from the standard narrative perspective—the “barbarians” (itself a negative term coined by those who distinguished themselves) lived a much better life than usually perceived: “There is a strong case to be made that life outside the state—life as a ‘barbarian’—may often have been materially easier, freer, and healthier than life at least for non-elites inside civilization” (Scott, 2018, p. xii). Scott further claims that in new archaeological and historical studies, “hunters and gathers have, in fact, never looked so good—in terms of their diet, their health, and their leisure. Agriculturalists, on the contrary, have never looked so bad—in terms of their diet, their health, and their leisure” (Scott, 2018, p. 10). It is only due to archaeology’s long time bias towards the collection and interpretation of stone buildings, monuments, and texts, that the “barbarian” way of life is understood as an exception to the rule of sedentism or as a relic of a pre-civilized, cruel, and wild world. Looking solely, or mainly, at these kinds of sources, produced in and by states, lead to a distorted understanding of the past, one in which progress towards sedentism was common, unchallenged, inevitable, and essentially good. For Scott, nothing could be further from the truth. In addition to the chronological lag mentioned above, he also reminds us that for ninety-five percent of human experience on earth most of humanity lived in small, mobile, dispersed, relatively egalitarian, hunting-and-gathering bands (Scott, 2018, p. 14). That shows us again that sedentism and agriculture were not the obvious choices for man as the standard narrative claims, and they were not as tempting as they appear in the great myth of civilization.

Another challenge to the standard narrative of civilization arises from critique of the common concept of domestication. While domestication is often understood as a simple one-directional process in which man changes his surroundings to fit his own (largely unchanging) needs as effectively as possible, Scott suggests that man himself was also subjected to domestication, and he wonders how control of the environment, primarily plants and animals, have also changed the “domesticator in chief”—*Homo sapiens*: “Were not they domesticated in turn, strapped to the round of ploughing, planting, weeding, reaping, threshing, grinding, all on behalf of their favorite grains and tending to the daily needs of their livestock?” (Scott, 2018, p. 19) The question is as simple as it is provocative. For if domestic animals are different from their wilder ancestors in their brain size and limbic systems (smaller for the former) and are characterized as more tame and “emotionally damp,” does not it make sense to assume that humans underwent similar changes? Although there is no archaeological evidence that can offer actual evidence to such self-domestication, Scott points to man’s new living conditions: “restricted mobility, crowding and the cross-infection opportunities it presents, a narrower diet (less variety for herbivores, less variety and less protein for omnivores like *Homo sapiens*), and relaxation of some of the selection pressures from predators lurking outside the domus” (Scott, 2018, p. 84), and suggests that they could have resulted in “a decline in emotional reactivity” (p. 86) and a weaker ability to be alert to the immediate surroundings.

Domestication also involves the exercise of state power and coercion, and particularly important in this regard is the domestication of grains. Scott continues with untraditional exploration and instead of looking at sedentary agriculture as an obvious advancement towards civilization and culture, he wonders why would humans take up this set of practices in the first place, especially if, when closely examined, it seems not as beneficial as earlier alternatives. There are two common explanations to the rise of grain-economy, both of which are proven wrong by current archaeological studies. First is the “food shortage hypothesis,” according to which

Cereal grains can be harvested, threshed, and stored in a granary for several years and represent a dense store of starches and protein if, by chance, there is a sudden shortage of wild resources. Despite its cost in labor, so the argument goes, it represented something like a subsistence insurance policy for hunter-gatherers who also knew how to plant (Scott, 2018, p. 63).

The problem is that this hypothesis is based on the assumption that crops grown are more reliable than food gathered through other means. But food security for hunter-gatherers stemmed from their ability to respond promptly to changes in their environment (e.g., early fish migration), which in itself was diverse enough so that if a source of food failed in a given year, another might be abundant. In other words, “if farming further restricted the potential movements of sedentary hunter-gatherers, their

inability to respond promptly to, say, an early bird or fish migration may well have diminished rather than enhanced their food security” (Scott, 2018, p. 64). In addition, the hypothesis ignores the fact that even hunter-gathers had knowledge of several preservation techniques such as the salting, drying or smoking of fish and meat, drying and storing of legumes, and fermentation of barley. In short, not only was grain agriculture more risky than foraging, but the foragers had also techniques of their own, other than farming, to secure their food stability.

The second popular theory brings farming even closer to being understood as an ideology of progress instead of the strategy that it was. Here, farming is viewed as a classic, perhaps even the original “delayed return” activity: “the cultivator [...] is a qualitatively new person because he must look far ahead in preparing a field for sowing, then must weed and tend the crop as it matures, until (he hopes) it yields a crop” (Scott, 2018, p. 65). While this is certainly true that this kind of planning is indeed required for farming, the implication that the hunter-gatherer seeks and is capable of pursuing only immediate return is wrong. For Scott, the claim that “the hunter-gatherer is an improvident, spontaneous creature of impulse, coursing the landscape in hope of stumbling on game or finding something good to pluck from a bush or tree” (Scott, 2018, p. 65), could not be farther from the truth. Hunting, for example, is a “delayed-return activity par excellence” (Scott, 2018, p. 66)—it requires careful planning, cooperation, coordination and the invention and use of a variety of tools and techniques.

So if the benefits of grain-economy are not that significant and the cultural developments (delayed-return mentality) are questionable at best, what is the secret to its success? The answer to this question is primarily political. It should be understood through the power structures the grain-economy created. In fact, the domestication of grains is a condition of the emergence of states: it is the only food product that can serve as a stable basis for taxation. Scott highlights the fact that this is the only crop

Visible, divisible, assessable, storable, transportable, and “rationable.” Other crops—legumes, tubers, and starch plants—have some of these desirable state-adapted qualities, but none has all of these advantages. To appreciate the unique advantages of the cereal grains, it helps to place yourself in the sandals of an ancient tax-collection official interested, above all, in the ease and efficiency of appropriation. [...] These characteristics are what makes wheat, barley, rice, millet, and maize the premier political corps (Scott, 2018, pp. 129-131).

The implications of grain agriculture and its connection to the emergence of the state are vast. They have a lot to do with behavioral changes. Scott argues that by committing to “meticulous, demanding, interlocked, and mandatory annual and daily routines” (Scott, 2018, p. 91) humans’ perception of time has changed, or rather,

humans were disciplined. While hunter-gatherers have to stay attentive to “the distinct metronome of a great diversity of natural rhythms,” (Scott, 2018, p. 90) their activities almost indefinitely varied, punctuated with bursts of intensity. Whereas, cereal-grain farmers are confined only to a single set of routines and to the tempo of one starch plant. It is this switch into agriculture, represented ultimately in fixed-field farming, which was the decisive move in the “civilizing process” and in the impoverishment of human life: “Once Homo sapiens took that fateful step into agriculture, our species entered an austere monastery whose taskmaster consists mostly of the demanding genetic clockwork of a few plants” (Scott, 2018, p. 91). Ultimately, Scott declares, the grain revolution should be seen as a process of deskilling. Although farming and sedentism is credited with making civilization possible, its full appreciation must consider that “it represented a contraction of our species’ attention to and practical knowledge of the natural world, a contraction of diet, a contraction of space, and perhaps a contraction, as well, in the breadth of ritual life”¹ (Scott, 2018, p. 92).

And let us not forget that the production of grain crops requires coercion—a large population must be forced to work in unison on a goal that is external to them (at least, in the short term). As said earlier, fixed-field farming did not guarantee better food-security than foraging nor did it involve any more “delayed-reward mentality” than hunting and gathering and the assumption that humans flocked into the state looking for security and culture is largely a myth. On the contrary, they had to be subdued into becoming part of the state, their escape always a possibility. Scott succinctly summarizes: “Why anyone not impelled by hunger, danger, or coercion would willingly give up hunting and foraging or pastoralism for full-time agriculture is hard to fathom” (Scott, 2018, p. 18). The state, to conclude, was not “a magnet of civil peace, social order, and freedom from fear,” but “largely a coercive enterprise” (Scott, 2018, p. 27).

In the next section I shall argue that some characteristics of grain economy—repetitiveness, coercion, rational management, and lack of diversity—have transferred almost unreflectively into the educational metaphor of cultivation, leading therefore to a set of assumptions about learning and teaching that, in my view, limit and impoverish them.

Against the Educational Grain

Following Scott’s thought-provoking critique of agriculture, I would like now to examine the assumptions that were “imported” metaphorically into education through the double meaning of the word cultivation, and parallel to Scott’s work, I wish to

¹ In line with this critique of agriculture and civilization although more polemical in nature, is the work of Anarcho-primitivist thinker John Zerzan. See: “Agriculture,” 2009 and Zerzan, John. *A People’s History of Civilization*. United States: Feral House, (n.d.). 2018

debunk some of the assumptions that the gardening metaphor is based on. Of course, I am not arguing here for sameness between education and agriculture or sedentism, nor do I claim that there is a strict analogy between teaching and gardening. However, I still claim that the metaphor does more than simply facilitating better understanding or presenting teaching more vividly. Presenting the origins of cultivation itself is done in order to expose hidden features of cultivation as a metaphor for education. To take an example from another field, let us reflect on the word husband. Pointing to the fact that the word does not signify only “a married man” but also the master of the house, having control over crops, animals, women, and children, can expose power relations within the family that may still exist today. Similarly, then, providing a more detailed and critical account of actual cultivation is done in the hope that it will shed light on education that is informed by cultivation metaphors. Also, the relationship between the state and education should not be understood as a causal relationship in the sense that the state is controlling the work of teachers through the use of this or that metaphor. Instead, I would like to draw attention to the state as a sort of logic or paradigmatic frame of reference in which teachers are trained and later practice themselves. In other words, the teacher-as-gardener metaphor can be seen as part of an educational ideological state apparatus (Althusser, 1970), influential in subjectifying individuals, professionals and institutions, yet not the cause for their formation as such.

First, as we have seen before with Buber and Froebel and in Mintz’s historical paper, teaching-as-gardening represents respect for the student’s uniqueness and therefore is a pluralistic approach and an appreciation of diversity. In the gardening metaphor, each child is perceived as unique and is expected to grow into what he or she essentially is, not moulded into a standard. Unique potentiality is of the utmost importance and differences between children are to be respected and encouraged. All the teacher should do is affect the environment so that it provides the best nourishment for the student so that hopefully a thousand flowers may bloom. There are a few problems with this assumption of diversity. As we saw with Scott, cultivation is aimed at diminishing diversity. Its goal is to produce identical, sturdy seeds, whose grown crops are visible, long lasting, and easily commodified. Isn’t this the exact description of learning carried out in the modern school? Despite differences between children (e.g., different learning styles, different backgrounds), they are expected to learn the same things, make their success visible (through test scores or by other means), and later use the “fruits” of learning in an economically efficient way. Said differently, even in the gardening metaphor, respect for student diversity seems to be largely instrumental, and in the service of conformity rather than plurality. Moreover, the child’s potential should not be understood as self-evident or obvious as it already implies a later actualized version. Said differently, not all children’s attitudes, dispositions, and behaviors get to be counted as “potentials” but only those who are judged favorably according to their future value.

Avi Mintz showed that natural potential was often understood explicitly as a limit to plurality, and not as its enabler:

The seed contains within it a particular future, a future from which one cannot depart. In a society in which people hold broad assumptions about hierarchies of races, ethnicities, religions, genders, and social classes, claims about people's innate nature were more likely cynically deterministic rather than optimistic" (Mintz, 2018, p. 6).

Citing Beecher who writes: "you can make a great deal more of a potato if you cultivate it than if you do not cultivate it; but no cultivation in this world will ever make an apple out of a potato" (cited in p. 6), Mintz shows that "the gardening metaphor [...] can also be a tool to reinforce prejudice and marginalize children based on their race, ethnicity, religion, gender, or social class" (Mintz, 2018, p. 6). It seems to me that despite the current adoption of some emancipatory and egalitarian characteristics of the gardening metaphor, it still lands itself very easily to inequality and hierarchy of potentials. Once a young person is viewed as a seed and learning compared to biological growth, it really does make sense that as excellent as cultivation is, there are still some differences in innate potentials that it cannot overcome. The infamous connection between education (or lack thereof) and eugenics can also be traced to this view of the student's mind as a seed. Francis Galton, for example, was interested not only in Hereditary Genius between humans but also in the size of actual seeds (Schwartz, 2008, p. 34).

The lack of diversity in potentials is a problem not only with respect to equality but also affects the strength and durability of the crop, and metaphorically, the value of learning outcomes. Successful grain-economy and domestication in general created a new and largely artificial environment, leading to a selection process that promoted grains (and animals) unable to survive without constant human intervention. Said differently, through intentional cultivation, humans play their own part in limiting what could otherwise have been wide array of forms of durability. Scott:

The purpose of the cultivated field and of the garden is precisely to eliminate most of the variables that would compete against the cultigen. In this man-made and defended environment—other flora, exterminated for a time by fire, flood, plough, and hoe, pulled out by their roots; birds, rodents, and browsers scared off or fenced out—we make a nearly ideal world in which our favorites, perhaps carefully watered and fertilized, will flourish. Steadily, by coddling, we create a fully domesticated plant. "Fully domesticated" means simply that it is, in effect, our creation; it can no longer thrive without our attentions. [...] its future is entirely dependent on

our own. If it ceases to please us, it will be banished and almost certainly will perish” (Scott, 2018, pp. 75-76).

Ignorant of the artificial nature of the domesticated plant, the teacher-as-gardener metaphor mistakenly views the child’s potential as uncultured. Moreover, when the gardening metaphor is accepted uncritically, no account is given to the weakness of the plant when encountering anything less than a “nearly ideal” environment. Taking the full implications of domestication into account, the cultivation of learning would be seen as dependent on a largely artificial intellectual environment, in which the teacher protects the learner from distractions, diversions, and various harmful “weeds” that compete for the student’s mental energy. In preferring the sturdier, visible, and conforming learner, the teacher provides a structured and rational environment, which will hopefully produce the desired educational outcomes. The question, of course, is to what extent is this kind of learning effective outside this protected environment. And more in general, does educational cultivation of that sort adequately prepare the child for life as an adult, or does it domesticate the student in a way that guarantees survival and success only when in an artificial environment?

Another clash between the image that the cultivation metaphor wishes to portray and the historical reality of its source has to do with freedom and coercion. It is assumed that teaching and learning from a gardener-standpoint would be free as much as possible from external constraints and therefore less mechanical and alienated, more varied, interesting, and respectful towards children’s choice and intrinsic motivations. However, going back to the source of the metaphor, it is exactly agriculture that has changed the nature of work into a monotonous, repetitive, and one-dimensional task (through the regimentation of time and space, and the use of coercion), so much so that in order to keep the fields from neglect, the early states had to rely on *corvée* work, slavery, the city’s walls—designed to keep tax payers inside as well as deter outsiders (Lattimore, 1937)—and other means of coercion to keep the workers from fleeing.

The similarity between this and the transformation from “playing” to proper learning is striking. Playing or learning through play prior to compulsory education is diverse, not necessarily linear, undisciplined and ultimately “wild.” It is then transformed into its opposite, and not surprisingly this change is facilitated by disciplinarian actions of varied intensity. As mentioned before, Scott claimed that it is hard to fathom why anyone would willingly give up hunting or foraging for a full-time occupation in agriculture. In a similar manner we can wonder whether children would have willingly joined schools, and give up their previous way of learning and interacting with one another unless they had been coerced to do it. Of course, children do not have complete free choice in any society, but there is still the assumption that school is good, and the responsible and mature child will grow to choose it so

coercion will no longer be needed. As said, this assumption is equivalent to the idea that the civilized state is essentially good and resisting it is senseless.

A word needs to be said about the difference between gardening and agriculture with respect to their suitability as metaphors for the school, especially since the discussion so far was focused more on agriculture. Indeed, while the common metaphor is teacher-as-gardener, I believe that the fixed-field describes the school better than the garden. First, while the outcomes of home-gardening are by definition ephemeral and non-marketable (even if there is some profit involved, it is an added bonus), the gardener-teacher is perceived as the facilitator of long lasting character traits that, almost without exception, once gained are forever in the service of the child. Moreover, although gardening is conceived as an individual leisure activity, horticulture and not agriculture, and definitely not industrialized agriculture, it is hard to see how this softer version of cultivation, the one more similar to gardening, can be conducted in schools. Teaching-as-gardening in the context of the modern school lacks many of the leisure characteristics of horticulture—the teacher has no choice of the plants he is nourishing, he has no control over the time he invests in them, and he is supposed to show the results of his actions to various authorities. To suggest another metaphor, a school teacher who truly understands his work as gardening would seem to have the unfortunate fate of an enthusiastic and creative cook working at McDonald's.

Cook-Sather (2003, p. 951) writes that metaphors taken without critique or reflection “can be more deluding than illuminating,” and Klieberd asserts (1982, p. 15) that “one who is not critically aware of the power of the metaphor can easily become its victim.” In conclusion to this analysis, I believe that the gardening metaphor is problematic in the sense here described. It misleads educators in very important ways (as for the object for gardening, the student, I highly doubt that children buy into the metaphor's “progressive” message), it deludes speaker and listener about the role of discipline and coercion in teaching, and ultimately, it turns both children and educators into victims of a false view of reality, one in which power structures, coercion, and impoverished learning are ignored, hidden or sugar-coated.

Beyond Cultivation

The critique of the gardening metaphor and of cultivation in general calls us to think of other possible metaphors for education. While it is not fully developed in this paper, I would like to suggest the forest as a better metaphorical trajectory for education than that of the garden and as one that can free education from at least some limitations entailed in cultivation metaphors. This suggestion is not so much normative, even less so policy-oriented, as it is a preliminary speculation on the possibility of thinking outside the cultivation paradigm.

Unlike the garden that can flourish only with intentional and constant cultivation, the survival and growth of the forest requires a different approach, one in

which cultivation is either missing or it is indirect and a plurality of variables, including human actions, must be taken into account from an ecosystem perspective. In fact, treating the forest as if it were a kind of field with the purpose of efficiently maximizing its outcome—lumber—often leads to the forest’s death, as the failed experiment of the German “scientific forestry” has famously shown (Lang & Pye, 2001; Scott, 1999).

In his classic definition for an ecosystem, Tansley writes:

Though the organisms may claim our primary interest, when we are trying to think fundamentally we cannot separate them from their special environment, with which they form one physical system [...] These ecosystems, as we may call them, are of the most kinds and sizes. They form one category of the multitudinous physical systems of the universe, which range from the universe as a whole down to the atom (Tansley, 1935, p. 299).

Following Tansley, we can say that although the students remain our main interest as educators and as researchers, we need to think fundamentally about their environment, whether it is natural, cultural, planned, or contingent. The ecosystem perspective allows us to view and conduct education not only as a chain of causal interactions in which action A (hopefully) leads to outcome B, but as an exploration of all-things-educational in their richness and interdependence.

Thinking of the forest as an alternative educational metaphor might seem at first as a romantic “back to nature” sort of critique of modernity. I believe, however, that this is not the important lesson to be learned from thinking of forests. First of all, the ecosystem view is not merely normative but also descriptive and explanatory. Thus it means that through looking for interconnectedness a phenomenon is better understood.² More importantly, the forest should not be understood as the opposite of cultivation or human action in general but as a product of complex interconnectedness. In a way that resembles Buber’s call for a third way between the model of educator-as-sculptor and educator-as-gardener, so is this view of the forest: a third way which is not focused solely on natural potential (gardener-educator, natural forest) or on human action (sculptor-educator, scientific forestry or agriculture), but brings forward mutuality of interactions (educational dialogue).

The Satoyama forests in Japan are an excellent example of the vague boundary between the human and non-human. In these beautiful and inspiring forests men supplemented their livelihood collecting young and fallen leaves as fertilizer for their

²For the epistemological advantages of the ecosystem approach, see: Schneider T (2019) Can We Talk About Feminist Epistemic Values Beyond Gender? Lessons from the Gut Microbiome. *Biological Theory*, 15(1), 25-38

fields, collecting wood for charcoal and construction, gathering mushrooms, hunting, etc. The result of these centuries old practices is a fascinating ecosystem—natural, yet with “human touch written all over it” (Tsing, 2015, p. 263). Rapid urbanization, shifting from charcoal to other resources, and the use of chemical fertilizers, have caused the satoyama forests to gradually disappear, and their characteristic pine trees to become extremely rare. Contrary to common belief, it is exactly the lack of human intervention that led to the forest’s death. We can see, then, that direct intervention aimed at products (“scientific forestry”) hampers growth just as much as complete neglect. Human actions in the forest here are not directed at cultivation and at long lasting outcomes, but are driven by need of sustenance, joy, and a search for communal experience. Nevertheless, the indirect outcome is the flourishing of the forest. Seeking to revitalize the declining satoyama forests, activists are faced with the challenge of resurrecting the forest without being able to approach the problem directly. Instead, they understand that what is at stake are not only the trees but also the people who enjoy them, and the practice itself is a “remaking of the human spirit” (Tsing, 2015, p. 262).

Unchecked cultivation may lead not only to a diminishment of actual forests but also to their gradual decline in our imagination. That is, to a decline in our ability to think and grapple with the unexpected, unplanned or uncivilized. In his book *Forests: The Shadow of Civilization*, Robert Harrison (1991) shows that the forest represents “an outlying realm of opacity which has allowed that civilization to estrange itself, enchant itself, terrify itself, ironize itself, in short to project into the forest’s shadows its secret and most innermost anxieties” (Harrison, 1991, p. xi). If educational thought and practice remain constrained by the paradigmatic metaphor of gardening—in its teacher-centered and authoritative version or in its more common progressive, child-centered and “open” version—educators’ and students’ ability for irony, wonder, and the unpredictability of self-governing ecosystems represented by the forest, will be limited.

The forest, therefore, need not necessarily be an actual one but can be thought of metaphorically. For example, we can think about learning environments as complex ecosystems of talents, desires, abilities, potentials, and yes, even distractions, interruptions and all other kinds of “weeds.” Having the forest in mind can allow us then to imagine education differently and as “a place where the logic of distinction goes astray” (Harrison, 1991, p. x) By this it is meant that distinctions between student and teacher, cultivation and moulding, content and form, means and ends, can then be questioned and transformed. The world, and education specifically, could then perhaps be reenchanting.

References

- AbdelRahim, L. (2014). Education as the domestication of inner space. *Fifth Estate* vol. 391. Retrieved from: <https://www.fifthestate.org/archive/391-springsummer-2014/education-domestication-inner-space/>
- Althusser, L. (1970). *On the reproduction of capitalism: Ideology and ideological state apparatuses*, G. M. Goshgarian, Trans. London & New York: Verso.
- Cook-Sather, A. (2003). Movements of mind: The matrix, metaphors, and re-imagining Education. *Teachers College Record*, 105(6).
- Dweck, C. (2006). *Mindset: The new psychology of success*. New York: Ballantine Books.
- Felski, R. (2015). *The limits of critique*. University of Chicago Press.
- Froebel, F. (1892/ 1826) *The education of man*. New York: Appleton & Co.
- Gopnik, A. (2016). *The gardener and the carpenter: What the new science of child development tells us about the relationship between parents and children*. New York: Farrar, Straus and Giroux.
- Kliebard, H. M. (1982). Curriculum theory as metaphor. *Theory into Practice*, 21(1).
- Lakoff, G. & Mark J. (1980) *Metaphors we live by*. University of Chicago Press.
- Lang, C. & Oliver P. (2001) Blinded by science: The invention of scientific forestry and its influence in the Mekong region. *Watershed*, 6(2), 25-34.
- Lattimore, O. (1937). Origins of the great wall of China: A frontier concept in theory and practice. *Geographical Review*, 27(4), 529-549.
- Lee, R. B. & Daly R. (1999). *The Cambridge encyclopedia of hunters and gatherers*. Cambridge: Cambridge University Press.
- Mintz, A. (2018). The present, past, and future of the gardening metaphor in education. *Oxford Review of Education*, 44(4), 414-424.
- Oxford, R. L., S. Tomlinson, A. Barcelos, C. Harrington, R. Z. Levine, A. Saleh & A. Longini. (1998). Clashing metaphors about classroom teachers: Toward a systematic typology for the language teaching field. *System*, 26(1), 3–50.
- Saban, A. (2004). Prospective classroom teachers' metaphorical images of selves and comparing them to those they have of their elementary and cooperating teachers. *International Journal of Educational Development*, 24(6), 617-635.
- Scott, J. C. (2017). *Against the grain: A deep history of the earliest states*. New Haven, CT: Yale University Press.
- Scott, J. C. (1998). *Seeing like a state: How certain schemes to improve the human condition have failed*. New Haven, CT: Yale University Press.
- Schwartz, J. (2008). *In pursuit of the gene: From Darwin to DNA*. Cambridge, MA: Harvard University Press.

Tansley, A. G. (1935). The use and abuse of vegetational concepts and terms.
Ecology, 16(3), 284-307).

Tsing, A. L. (2015). *The mushroom at the end of the World: On the possibility of life in capitalist ruins*. Princeton, NJ: Princeton University Press.

Author Details

Oded Zipory is an assistant professor at The Hebrew University of Jerusalem, in the Seymour Fox School of Education. Specialising in philosophy of education, Zipory writes about critiques of modern and neo-liberal conceptions of education, continental philosophy, and hope and despair in education. Contact: oded.zipory@mail.huji.ac.il



This work by Oded Zipory is licensed under a [Creative Commons Attribution 4.0 Unported](https://creativecommons.org/licenses/by/4.0/).