

Renate Sander-Regier

Bare Roots: Exploring Botanical Agency in the Personal Garden

ABSTRACT

Non-human agency is an anthropocentrically problematic issue that some brave geographers have discussed with relation to plants in contexts such as orchards, cemeteries and gardens. I strive to shake the idea of agency loose of its deterministic human trappings, and explore plant agency from a more basic, bare-roots sense as something achievable by non-human actors. The context I have chosen for this endeavour is the hybrid space of the personal garden—where botanical agency of presence, action, intent, association and capacity is experienced by gardeners actively involved in the space—as portrayed in contemporary personal gardening literature.

RÉSUMÉ

Le concept de liberté d'action, ou d'agir, lorsqu'il est non humain, est problématique pour l'anthropocentrisme – il s'agit de l'une de ces questions que certains géographes ont soulevées à propos des vergers, des cimetières et des jardins. Je m'efforce ici de débarrasser le concept d'agir des pièges du déterminisme humain, pour explorer l'agir des plantes d'un point de vue plus fondamental, plus dépouillé, en tant que quelque chose à quoi peuvent parvenir d'autres êtres que les humains.

Pour cette tentative, j'ai choisi le contexte de cet espace hybride qu'est le jardin individuel, tel qu'il est dépeint dans les écrits contemporains traitant de ces jardins, où les jardiniers activement impliqués dans cet espace font l'expérience, à travers la présence, l'action, l'intention, l'association et la capacité, de l'agir botanique.

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Agency, a thorny and knotted issue, particularly with respect to living entities other than *Homo sapiens*, is a concept entangled with associations. As a geographer, I have been inculcated in the discipline's conception of agency as a human triumph: the "capabilities of human beings" (Gregory 2000: 349), "people making their own geographies" (Goodwin 1999: 36) and "the power of human consciousness and human action to redirect the course of events" (Ley 1996: 205). The *Dictionary of Human Geography* (Johnson et al. 2000) carries an entry for human agency only. These are all anthropocentrically problematic.

More standard dictionaries, although they let the occasional human reference slip in—"The *person* who," "*He* who"—tend to be more generous.¹ The *Oxford English Dictionary*, for example, defines agency in terms of activity, action and embodiment as concrete existence,² and describes an agent as acting or exerting power, producing an effect or originating an impression received by a percipient.³ The *Merriam-Webster* dictionary echoes these definitions by putting agent and agency in terms of the state, condition or capacity to act, exert power, achieve an end and produce an effect.⁴ When the concept of agency is shaken loose of deterministic human trappings and presented in a more basic, bare-roots sense, it looks like something achievable by more than just humans.

The idea of broadly achievable agency is a direction some geographers take in discussions of a more inclusive agency, particularly with respect to animals (Wolch and Emel 2003; Philo and Wilbert 2000). These geographers are taking up the challenge of admitting and registering the "creative presence" of non-human entities among us (Whatmore 1999: 35), of designing research that considers both animal and human agency simultaneously (Wolch et al. 2003: 193), and balancing empirical approaches to research with powers of empathy and imagination (Elder et al. 1998: 8). Chris Philo and Chris Wilbert add the benefits of specifying a "measured, hesitant, reflected upon form of anthropomorphism" (Philo and Wilbert 2000: 19). Certain brave souls are taking the challenge into discussions of plant agency and acknowledging, as Donna Haraway has long recognized, that "actors come in many and wonderful forms (Haraway 1991: 198).

A pioneer of plant agency discussions is environmental journalist, professor, and gardener-writer Michael Pollan, author of the intriguing and provocative *The Botany of Desire: A Plant's-Eye View of the World*. Focusing on the stories of Apples, Tulips, Potatoes and Marijuana and the ways in which they relate to human society and culture, Pollan suggests that plants may have domesticated us.

“The species that have spent the last ten thousand or so years figuring out how best to feed, heal, clothe, intoxicate, and otherwise delight us,” he points out, “have made themselves some of nature’s greatest success stories.” The genetic book of a plant, he adds, would reveal a wealth of information about humans. “We could read volumes about ourselves in their pages,” Pollan asserts, “in the ingenious sets of instructions they’ve developed for turning people into bees ... their genes are rich archives of cultural as well as natural information” (Pollan 2001: xvi-xvii).

In his equally intriguing and provocative *Dominance and Affection: the Making of Pets*, geographer Yi-Fu Tuan makes earlier suggestions of plant agency. Although the book stresses human dominance, Tuan does write that “plant life has exigencies of its own that may conflict with human needs and desires” (Tuan 1984: 63). He adds that trees, although they may stay where they are rooted, have branches and foliage that grow and change “as though possessed of a will of their own” (67). More recently Sarah Whatmore delves into the world of the Soybean as not only a socio-material, industrial and biotechnological (re)assemblage, but also as a biological and ecological entity whose “lively potencies” respond to hybridization and genetic modification efforts in ways that are “deviant and unintended” (Whatmore 2002: 124-25). Paul Cloke and Owain Jones, who stress the importance of taking tree agency seriously, focus on everyday contexts—cemeteries, orchards, urban squares, heritage trails—and the ways in which human and tree agencies are relationally bound and assembled in complex social and material relations in those spaces (Cloke and Jones 2001, 2003, 2004; Jones and Cloke 2002). They discuss, for example, the creative ability of Apple trees to produce different kinds of fruit and to shape the art of pruning, as well as the capacity of orchards to engage the human workforce and evoke emotion (Cloke and Jones 2001). They also investigate the role played by cemetery trees in (re)constructing and (re)forming a particular place, and in co-constituting social processes that signify and resignify place meanings (2004). Russell Hitchings concentrates on the personal garden, which he calls the “private garden,” and the human-plant relationships that play out there. His work looks at shifting balances of power between people and plants who live together in actor networks (Hitchings 2003), at the different, context-dependent ways human and plant agencies and intimacies can be researched (Hitchings and Jones 2004), and at the varying agencies, materialisms and material cultures at work in the space of the private garden (Hitchings 2006).

In their discussions of plant agency, both Hitchings (2003) and Whatmore (2002) invoke the relational agency of Actor Network Theory (ANT), an approach which strives to uncover and trace the manifold connections and relations among diverse actors—human and non-human, material and discursive—that allow them, along with events and processes, to become what they are (Bosco 2006: 136). The “mutually constitutive ... ‘actants’” (Jones and Cloke 2002: 48-49) connected through the network play their roles and act out their agencies—with the action

coming from both non-human and human sources, depending on the links within the networks (Murdoch 1997: 334)—through their intrinsic properties, as well as through their positions relative to other agents within the network (Castree 2005: 231).

Jones and Cloke readily acknowledge ANT's contribution and influence in disrupting the dominant notion of exclusively human agency, in fostering new understandings of nature-society relations and in recognizing non-humans as essential elements in the flowing together of the natural and the social (Jones and Cloke 2002: 52). Yet they also make the point that a purely relational perspective on agency can obscure the "creative effects" of non-human actors; they argue that we need to recognize "emplaced peculiarities of being" and "the creative input of heterogeneous actors/actants" within relational frameworks (8)—something they demonstrate in their research on trees.

What follows is inspired by this focus on emplacement and creative inputs, and by the space where Hitchings conducts his studies: the ordinary mini-landscape of the garden, "saturated with developing relationships between people and plants" (Hitchings and Jones 2004: 7). It is this small, everyday space that resonates most with me: my gardener self, who has worked its soil and tended its botanical inhabitants; my writer self who has found inspiration in its mysteries; and with my geographer self who has studied its expressions and meanings. So, in the spirit of what has been termed geography's "latest turn earthward"—toward studies that seek to make sense of ecologies of place shaped through practice, processes and "passionate, intimate and material relationships with the soil, and the grass, plants and trees that take root there" (Lorimer 2005: 85)—I am following Hitchings into the personal garden,⁵ and looking through Jones and Cloke's "creative peculiarities" lens, to explore manifestations and nuances of botanical agency.

Contextualizing Agency—The Personal Garden

Hitchings points out that people and vegetation work together in different ways, and that it is therefore important to study their relationships in context (Hitchings 2006: 369, 377). Considering the hybrid human-nonhuman context of the garden—if we agree that hybridity is a process which crosses and displaces binary boundaries, emerging as something "ontologically new" (Rose 2000: 364), something carrying physical traces of the originating elements yet a "distinct entity," a "thing in its own right" (Mitchell 2005: 188)—its generally small, personal form is a most fitting site to explore botanical agency. Neither totally human, nor totally non-human, personal gardens typically reveal strong personal, cultural and social characteristics, as well as intricate networks of biological, ecological and greater environmental processes (Sander-Regier 2006), with each garden emerging as a distinct site shaped through the particularities of its physical

setting and the unique vision of the gardener or gardeners involved in creating and maintaining the space.

The gardener, in this context, is a part of the garden's systems and processes, a dynamic element working with greater natural forces in the garden ecosystem (Allsop 1972: 40-48). His or her role, usually active and nurturing, also ordering and managing, often results in an intensely personal and profound involvement with the garden and its characteristic variety of plants. In this capacity, the gardener is well positioned to experience an accompanying diversity of plant agency on a continuous and intimate basis—often admiring and celebrating it, frequently also struggling with it.

Not all gardeners will admit to plant agency at work in “their” gardens, and not all gardeners develop intimate relationships with the spaces they cultivate. But those who do sometimes make the effort to share their experiences of envisioning, designing, shaping and maintaining meaningful outdoor garden spaces over time. Recent contemporary personal gardening books by gardener-authors such as Diane Ackerman (2001), Douglas Chambers (1996), Marjorie Harris (1995, 1999), Patrick Lane (2004), Sara Stein (1993),⁶ Leon Whiteson (1995) and others, are the results of such efforts. These writers, gardening in diverse geographical locations and cultural contexts, reflect on the roles they have played in the evolution of their gardens, ponder the personal relationships they negotiate with the space and contemplate the reciprocal impacts they and the gardens have on each other. In sharing their personal gardening stories, these authors inevitably bear witness to manifestations and nuances of botanical agency.

Personal gardening literature, then, is the source—a sadly underutilized one—I will turn to in my exploration of botanical agency. The bare-roots endeavour shakes loose as many human criteria and determinants as possible to focus on the agency of plants, on their creative inputs and effects, and on their emplaced peculiarities of being (Jones and Cloke 2002: 8), with the full knowledge that my efforts, and the perspectives of the books I am consulting, are admittedly and inevitably human, with their accompanying limitations and issues. They cannot be otherwise. I and the authors I draw upon are members of the *Homo sapiens* species, and the plants of the garden are, in the words of William Cronon, writing eloquently about sky, wind, rocks, birds and trees:

first and foremost themselves, despite the many meanings we discover in them. We may move them around and impose our designs upon them. We may do our best to make them bend to our wills. But in the end they remain inscrutable, artifacts of a world we did not make whose meaning for themselves we can never finally know. (Cronon 1995: 55)

It is true that plants are mysterious and that we can never know them fully. Yet we must attempt to know these botanical partners in the garden project, if only

to satisfy our own curiosities about the non-human Others that live among us, to acknowledge and accept the “the livingness of the world” (Whatmore 2006: 602), and to start thinking differently about the other life forms that share the planet. To this end, I will, to the best of my limited human abilities, endeavour to suppress human presence in the following sections, and to highlight botanical agency, creativity, caprice and power as experienced and described by contemporary personal gardening authors.

Agency of Presence

If, as John David Dewsbury et al. suggest, “materiality is agency” (2002: 439), and if materiality involves “being composed of matter; material existence; solidity,”⁷ then the physical, embodied presence of plants in the garden attests to their agency. Harris, for example, in *In the Garden: Thoughts on Changing Seasons* (1995),⁸ writes about a Weeping Mulberry tree, among the first of dozens of shrubs and small trees she planted herself in her garden. As she explains, birds and squirrels feed on its fruit, and its drooping branches provide a cool hiding place for children and the cat. Harris doesn’t agree with people who suggest that she remove the tree because it blocks her view of the garden. “It [the tree] has a kind of gnarled elegance which symbolizes the aging of the garden,” she states, adding that it is more important to preserve the history embodied by the tree. “The mulberry stays with us for the rest of its life. And the life of this garden,” she declares in a strong statement of meaning and loyalty (Harris 1995: “The Weeping Mulberry”).

Smaller garden plants can also have a powerful material presence in the garden. In *Stony Ground: The Making of a Canadian Garden*, Chambers celebrates the “great blowsy lilies of July” along with their evening perfume that fills the air so strongly it almost makes him forget his gardening misfortunes and disappointments (Chambers 1996: 53). The garden Ackerman writes about in *Cultivating Delight: A Natural History of My Garden* is a space she appreciates just as sensually, and with reverence, as she strolls through it:

I repeat what I suppose is a mantra as I regard the garden on these strolls. “Beautiful, beautiful, beautiful,” I repeat under my breath, as much a compliment as an observation. I ... feel awed by the sense-tingling beauty of such life-forms so different from us. (Ackerman 2001: 121)

In *There is a Season: A Memoir in a Garden* (2004), Lane expresses something more akin to artistic appreciation for an even smaller, but no less intense botanical presence in the garden: the mosses, generally “innocuous and largely unnoticed,” who occupy every moist and shaded corner of the space in subtle variations of colour ranging from yellow and green, to grey and red, to blue and black. Lichens fascinate him too, along with the names of all these smaller botanical inhabitants of the garden—names, I would add, that have an evocative materiality in their quirky appearance on the page, the sound they make on the tongue, the images

they conjure. For mosses—Cranesbill, Wet Rock, Red Roof, Awned Haircap, Hairy Screw, Black-tufted Rock. For lichens—Lettuce Lung, Tattered Rag, Devil’s Matchstick, Orange Pincushion, Common Witch’s Hair (41-43).

All these botanical organisms, large and small, have an undeniable material presence, an existence and solidity in the personal garden and in the gardener’s imagination. This grants them a certain rudimentary agency. Yet even when they are absent, plants can have a presence in the garden as it is remembered by the gardener. In *Noah’s Garden: Restoring the Ecology of our Backyards* (1993), Stein writes about a particular Apple tree felled because it was hollow and rotted inside. In retrospect, she regrets the action because the tree was not yet dead, and because wild animals such as raccoons, squirrels, possums and honeybees depend on just such tree hollows for homes and shelter. The Apple tree lives on materially in Stein’s woodpile, and symbolically in her memory as a reminder of a mistake she does not wish to repeat (Stein 1993: 194-95).

This life after death, so to speak, attests to the power of plants to evoke not only fascination and awe, but also loyalty and nostalgia. This power takes the idea of material agency in the direction of a particular aspect of presence—the “embodied personality” and “impressive or imposing appearance,”⁹—which the *Oxford English Dictionary* attributes to people, but which gardener-authors just as reasonably apply to plants: strong and influential garden presences, even in absence.

Agency of Action

The botanical agency of presence, of plants “being there” and making a strong impression, reinforces the general perception of plants as being immobile—not a mistaken notion, considering they are essentially rooted in one spot. But rootedness does not mean plants are incapable of action, an important aspect of the *Oxford English Dictionary*’s definition of agency.

Botanical action is different from animal action. It is a less obvious “exertion of energy,”¹⁰ and more of a subtle functioning of the body or body part, a quiet “act of will.”¹¹ Plant action occurs according to a rhythm different from ours; it unfolds in what we might refer to as “botanical time” or, in an arboreal context, “tree time” (Jones and Cloke 2002: 69). Plant action may, in fact, be better understood in terms of activity, a process carried on or participated in “by virtue of being alive.”¹² Botanical action and aliveness manifest their nuances to those who are present in the garden to experience it—like gardeners.

In *A Garden Story* (1995), Whiteson identifies one of the most moving experiences a gardener can have: witnessing new leaves emerging. “A leaf’s unfolding can be as simple as a fig’s foliage opening up at a branch tip,” he writes, “or as startling as the new leaf splitting the stem of a tropical elephant’s ear to emerge, like Eve,

born from Adam's rib" (79-80). Harris also finds a leaf's unfurling to be a stirring experience:

the fragile tips of the very first hostas push their way through the cold, damp soil. The contortions of leaves as they twist themselves away from the earth are like exquisite silk—opaque and luminous. With the pale morning sun behind them, it makes my heart almost burst with the pure joy of a new day and a new season. (Harris 1995: "Early spring")

The thrill associated with leaves unfurling in expected garden spots is matched by the surprise and joy of plants moving into the garden unexpectedly, plants that were not placed there by the gardener. Stein, for example, expresses delight at discovering Winterberry, a native deciduous Holly shrub, sneaking into the woodland behind the pond on its own initiative (1993: 201). Lane declares, "I love it when plants appear from nowhere" in response to three species of Marsh Violets showing up in his garden "as if by magic" (2004: 131-32).

Other plants who steal in on their own initiative, however, are not so welcome. The Creeping Buttercup, for example, is a little plant Lane considers among the most beautiful in the region. But the fact that it spreads avidly, by seed and long stolons which touch down and root immediately, makes it extremely invasive. Once established, Lane points out, Creeping Buttercup is impossible to eliminate entirely—as in his garden, where he has spent years waging a "great battle" with the little plant (2004: 134-35). Harris expresses similar frustration, in *Seasons of My Garden*, about the activity of Creeping Jenny, an effective ground cover she planted to stabilize the soil in a certain problematic part of the garden. The plant has been so successful, however, and spreads so swiftly, that she has spent years pulling it out (1999: 44).

Both these creeping plants take on the status of weeds, basically plants "out of place" (Evans 2002: 10), growing where they are not wanted (Despard 2008: 87; Lane 2004: 135). While a specific focus on weeds is beyond the scope of this article, they do merit some discussion here, considering their inevitable presence and activity in gardens and other landscapes of cultivation. Weeds, entangled as they are with specific human interests and activities, and with notions of desirability and undesirability, defy clear-cut definition (Despard 2008; Evans 2002; Baker 1974). Perspectives on what is and isn't a weed vary depending on who is determining what is and isn't a weed, where the weeds are being identified, and when the designations are occurring (Evans 2002: 2-4). Lane's Creeping Buttercup, for example, is a beautiful plant in the region at large, but in his garden it is unwanted and persistent—a weed. Harris's Creeping Jenny initially serves a desirable purpose, yet with time and incessant activity, the plant becomes invasive and undesirable—another weed.

Clinton Evans makes the interesting statement that weeds wouldn't exist "if it were not for people and their activities" and "if people ceased to consider them to be weeds" (2002: 14). Yet human activity and ideas are as persistent as the weeds they construct, so it is not surprising that weeds manifest agency with compelling vigour and unrelenting activity in gardens and other cultivated spaces. Erin Despard discusses weed agency in terms of the capability of these unwanted plants to surprise us, "growing faster and larger than we expect, appearing in locations where we did not plant them, presenting an unusual growth habit," or adapting quickly to changing conditions (Despard 2008: 91). Evans, writing about weeds in an agricultural context, puts their adaptability in terms of their ability to resist "the hostile attentions of farmers through the centuries" (Evans 2002: 17)—evidence of more than just basic activity, a hint at what Whatmore puts in terms of "lively," "deviant and unintended" potencies (Whatmore 2002: 124–25).

Botanical action on the part of wanted and unwanted plants—from the subtle and delightful unfurling of leaves, to the surprise of plants appearing out of nowhere, to the frustration of undesirable plants spreading, thriving and resisting efforts to control their growth—is clearly at work in the personal garden and other landscapes of cultivation. It is an agency that brings to mind the notion of plants pushing back with their own vitality (Jones and Cloke 2002: 6), and the senses of fluidity Whatmore stresses with respect to wildlife, including "spaces of motion" and "mobile lives" led by animals and, less evidently, by plants (Whatmore 1999: 33; 2000: 268–69). Botanical spaces of motion are, as evidenced in the testimonies of gardener-authors, discreet, less direct, more elusive and difficult to grasp. It is part of their "creative otherness" (Jones and Cloke 2002: 215), their mystery and intrigue, their allure—a related aspect of plant power, of botanical agency.

Agency of Intent

As interesting and useful as it is to look at botanical presence and action in isolation, these agencies gain significance in the context of their purpose—something that may seem presumptuous to examine from a human perspective, considering plant mystery and intrigue. While it could be argued that plants are present in the garden in large part because the gardener wants them there—either placing them in the garden deliberately, or letting them stay when they appear on their own if they are a desirable species—plant action is a different story. I believe it would be safe to state that plants thrive not to please the gardener, who may help the process through fertilizing and watering, but because that is what they do. Plants live. They grow, reproduce and contribute to the survival of their species. We could say that living, or "livingness" in echo of Whatmore (2006: 602), is the intent, the purpose and will of plants.¹³ It is another aspect of botanical agency, eminently discernible in the personal garden.

The plants in Whiteson's Hollywood garden in particular illustrate livingness through their enthusiastic and rampant growth in the region's favourable climate. The Vanilla Trumpet Vine curving over the garden's arch, reaches out to entwine with the Orange and Avocado trees on either side (Whiteson 1995: 40), while the Morning Glory, if left unchecked for more than a couple of days, strangles the Trumpet Vine (155). When Whiteson is unable to tend the garden for a longer period, it goes wild, with vines, bushes and shrubs growing together dense and intertwined (118). Yet garden exuberance is not confined to southern climates. The New York State garden cultivated by Ackerman exhibits its own unique vitality. She writes, for example, about returning to a different garden every time she makes an overnight trip. "While I was away a day and a half," she reports, "hundreds of purple Ajuga flowers sprang up in the shade of the apple trees" (Ackerman 2001: 43). She describes her Roses blooming like a "meteor shower," thick and luxuriant, while Peonies, Wisteria, Oregano and Russian Sage overwhelm the neighbourhood (110) with plant livingness.

A specific purpose of plant livingness, in the garden and elsewhere, is reproduction—a process Pollan describes as something "every being cares about on the most basic genetic level: making more copies of itself" (Pollan 2001: xiv-xv). Reproduction is an intent gardeners know very well.

Stein, for example, writes about the astounding reproductive success of a particular ornamental non-native Buckthorn tree she originally planted in a hedge, and which has taken to invading the wooded spaces of her garden—another weed of sorts. Noting that the tree appears to have a 100 per cent germination rate, she explains that it also has a predisposition for escaping cultivation into woodlands, where it exhibits a "particularly annoying habit of sneaking up through bushes" and growing unnoticed until its roots are too deep to pull it out. If these Buckthorns are disregarded, she stresses, they grow quickly into thickets so dense nothing else can grow there. She ends up pulling out thousands of Buckthorn seedlings every year (Stein 1993: 199).

It is ironic that unwanted plants appear to be the most successful, reproductively speaking, and the most perseverant. Harris, for example, battles with Purple Loosestrife, which she admits is a beautiful plant, yet overwhelming and destructive when it escapes from the garden. "I tried getting this plant out of my garden," she explains, "by exposing the roots system over the winter and pouring boiling water over it, and it still survived" (Harris 1999: 110, 113). Yet Ackerman cultivates the same plant in her garden, where it is apparently well-behaved, keeping to itself and not crowding its neighbours (Ackerman 2001: 69-70). She declares, in fact, that she likes weeds, who appear in surprising places, adapt easily, and are "inventive" in their strategies to survive excess or scarcity (69).

Invention is a quality Ackerman also attributes to the reproductive strategy of wind-pollinating plants, who do not need to attract pollinators by producing

alluring colours or nectar. “They just flood the neighbourhood with seed,” she writes, adding that some plants have devised ways of harvesting the wind as cleverly as our windmills. She provides the example of the Pine tree, whose cones evolved as “tiny turbines with blades” that catch pollen coming from any direction and distribute it in a wind cloud around all the blades, where currents form to send the pollen to its target (162).

All this plant action, this invention and cleverness, serves plants in their intent to survive and thrive, reproduce and participate in the continuance of their species: it reinforces the intrigue and allure of plants in the garden and adds to their power, to their agency. Together, the activity and intent contribute to the “overabundance of life in general” (Rose 2002: 460) and to what Ackerman describes as the “lively being of the garden” (Ackerman 2001: 164). It is all a part of what Jones and Cloke call a “collective capacity for action” (Jones and Cloke 2002: 52).

Agency of Association

It is the notion of collectivism that underscores the idea of plants having agency through association, by coming together, connecting or combining with other parts.¹⁴ Collective capacity for action is at the root of actor-network theory’s relational agency, and of Whatmore’s “spaces of relation” where the wild and the domestic get caught up in “volatile eddies and flows” of networks that bring together various actors, including people and other living organisms (Whatmore 1999: 34; 2000: 270).

In her description of spaces of motion, Whatmore actually provides a botanical example of spaces of relation: “plant seeds journeying in the bellies of animals” (1999: 33; 2000: 270). Lane discovers a similar process in the boulevard garden in front of his house, which is a “catch-all for every shrub that bears fruit” for reasons he can’t figure out—until he realizes that the garden is located under the utility lines where birds perch, sing and defecate fertilizer-encased seeds. The result is a diversity of shrubs who offer food to Robins, Thrushes and Cedar Waxwings who then carry the seeds to other locations and “plant” them there (Lane 2004: 127-28).

Stein puts these sorts of associations in terms of transactions struck between species. Because of the inability of plants to move around to look for mates, she explains, most of them depend on other organisms to convey male pollen from one plant and transfer it to the receptive stigmas of another. The direct fee for this service, she writes, take the form of:

food rewards—nectar almost always, but often also a portion of their pollen. There is also overhead to pay: as in any business, indirect costs are incurred in advertising and conveniences offered to attract and keep customers. Bright pigments, for example, are an extra expense, as are

the large nectar stores and extra-sturdy landing petals that bumblebees demand. (Stein 1993: 54)

Both parties involved benefit in these “deals,” as Stein calls them, with the plant gaining aid in its reproductive process and the animal feeding to refuel its energy. The business analogy, Stein insists, is fitting. “Each plant species vies with others for services,” she points out, “and each animal species vies with others for rewards” (54).

Homo sapiens is among the many different animal species with whom plants—among the beings on earth Haraway considers “opportunistic, ready to yoke unlikely partners into something new, something symbiogenetic” (2003: 32)—have negotiated associations. Stein tells the story of European field weeds such as Dandelion, Chickweed and Nightshade—many now the bane of gardeners—migrating to the North American continent. She points out that many of the weeds accidentally hitched rides in ship ballast and cattle feed, while others were deliberately imported for purposes of medicine, livestock feed, fabric dyes and garden ornamentation. These plants, Stein explains, had adapted over millennia to living with humans on disturbed agricultural land in their landscapes of origin, giving them advantages over most native species when it came to growing in areas characterized by mowing, ploughing, compacted or sterile soil and livestock grazing (Stein 1993: 37). These immigrant species effectively co-evolved with *Homo sapiens*, and they took advantage of a free ride to new territory, now appearing in the constantly disturbed and open soils of spaces like gardens.

Botanist Herbert Baker points out that in areas where disturbance and weed presence are ongoing, co-evolution can result in the formation of specialized local ecological races or ecotypes such as weeds of hybrid crops, weeds of perennial grasslands and crop mimics (1974: 12-17). Evans emphasizes that some weed species have developed “unusually intimate relationships with specific domesticates,” mimicking the morphology and life cycles of crops so well that it is practically impossible to distinguish between them (Evans 2002: 15). In an interesting perspective on co-evolution, he adds that weeds, in essence “agents of nature bent on colonizing an ecological niche created by the activities of another weedy species, *Homo sapiens*” (189), have likely been responsible for forcing as many changes to human farming systems as humans have brought about in weed populations (17).

Pollan takes the human-plant co-evolution discussion a step further. As cleverly as flowers have manipulated the bee into carrying their pollen from one flower to another, he suggests, plants have encouraged us to spread their genes. Taking the example of the Potato plant, he writes:

like the apple blossom, whose form and scent have been selected by bees over countless generations, the size and taste of the potato have been

selected over countless generations by us—by Incas and Irishmen, even by people like me ordering french fries at McDonald's. Bees and humans alike have their criteria for selection: symmetry and sweetness in the case of the bee; heft and nutritional value in the case of the potato-eating human. (Pollan 2001: xiv-xv)

Plants, he stresses, are “willing partners in an intimate and reciprocal relationship” (xxv) with human beings—a realization that changes his perspective on his garden. Its many delights to the eyes, nose and tongue, he writes, no longer appear passive or innocent. Plants, in his mind, become subjects acting on him, manipulating him into providing services they cannot supply for themselves (xv). In this sense, the garden and its botanical inhabitants have had a transformative impact on Pollan—a transformation in the sense of disruption, diversion and creation (Jones and Cloke 2002: 54) and not widely associated with non-human entities.

Ackerman's perspective on human “employment” by plants echoes Pollan's, but she does not believe plants need us. She seems, in fact, to admire the fact that plants managed for millions of years without humans. “So I feel we're privileged to walk among them and find pleasure in their ways,” she writes with a touch of reverence, adding that “it might have been otherwise” (Ackerman 2001: 99). If it had been otherwise, it would have deprived her of a source of sensory stimulation—visual, olfactory and tactile, “the kinesthetic sense of moving through space” (71)—critical to her relationship with her garden space and her sense of well-being, transformative in its potential absence.

The ability of plants to associate with other species, to participate in greater processes and systems, and to transform human experience and perception, could be viewed as a particular aspect of botanical invention and cleverness. It could also be considered a beneficial quality in the spirit of ANT's relational agency, where “multitudes of circulating forces ... jostle against each other” and interact in ways that shape society (Hitchings 2003: 100) and “distribute” agency among various human and non-human actors (Whatmore 2002: 5).

Agency of Capacity

The possibilities opened up by these circulating and interacting forces, working through multitudes of relations and networks, expand the capacities of the entities involved. The agencies discussed thus far—association, intent, action and material presence—attest to the capacity of plants, to their power and ability¹⁵ to produce, perform, or deploy¹⁶ in the process of managing their own lives. In the personal garden, additional competencies and “skills” (Jones and Cloke 2002: 61), many unique to the plant world, come to light.

Photosynthesis, the process by which leaves use water, gases and sunlight to manufacture the sugars and carbohydrates plants need to grow, is one of the plant

world's most fascinating capacities, one described by both Whiteson (1995: 79) and Stein (1993: 27, 148). Photosynthesis is a "miracle of living alchemy," credited by Anthony Huxley with supporting virtually all life on this planet (1984: 25). Another extraordinary but arguably less well known process is the one whereby plants close down for the winter season in northern climates. As Harris explains, plants taper off general activity, dropping leaves so that fewer plant parts use the decreasingly available moisture as roots take up less water. The water in plant cells also changes so that it freezes at a lower temperature, helping to harden off the plant for winter (Harris 1999: 136). Ackerman registers additional ingenious strategies by which plants survive winter outdoors:

some plants hide out underground—as roots, bulbs, and tubers crammed with food—until it's safe to grow leaves again; many plants secrete alcohols and sugars as a kind of antifreeze to lower the temperature at which cell walls would burst; lichens dehydrate over the winter; some plants grow low to the ground to avoid windchill; some flowering plants ... grow hairs along their stems and fruit as insulation; ... some just sink their roots deeper; plants that live in extreme cold ... sometimes use a color like red to convert light into heat. (Ackerman 2001: 171)

These adaptations are part of what Harris, in both her books, calls "plant culture" and likens to an ethic, with values based on the hours of sunlight a plant needs to live, the minimum amount of water it requires for survival and the type of soil which will help it thrive (Harris 1995: "Plant culture"). She also writes about "pedigree," which includes, for example, the penchant alpine plants have for well-drained soil, along with their low-growing habits, or the preference of plants from Oregon for rich woodland habitat (Harris 1999: 44). Knowledge of plant culture, she adds, is something gardeners understand through observation and in this process add to their own gardening culture (1995: "Plant culture").

Chambers (1996) scratches below this surface when he writes, somewhat tongue-in-cheek, about plant intelligence as something gardeners acknowledge after weeding for a year or two. "Why is it," he asks, "that the leaves of red dock look so like the earlier radicchios, and how does Queen Anne's lace know that its feather fronds will be indistinguishable among the carrots?" (68-69). These strategies may indeed be attributable to plant intelligence—or competence and skill—blended with, in Haraway's words, "a sense of the world's independent sense of humour" (Haraway 1991: 199). Humour blended with competence is what Ackerman seems to appreciate in weeds—in their tendency to "crop up in unexpected places" and adapt easily, in their inventive ways of surviving "surfeit or famine"—inspiring her to plant weeds in her garden (Ackerman 2001: 69).

Ackerman goes on to explore the idea of plant self-awareness. Acknowledging that plants may not experience what we call pain, she points out that they do "recoil from damage" in the knowledge that they have been hurt. She adds that

although they may not display parental qualities, they will eliminate threats to their genetic continuity (98-101). University of Ghent researchers, she tells us:

infected tobacco plants with tobacco mosaic virus, and using a high-resolution infrared camera, discovered that leaf temperatures were higher at the sites of infection, and that the fever appeared before any visible signs of illness. The discovery will help in the early diagnosis of crop disease, but it also adds to our understanding of what we have in common with plants. They get feverish when sick, droopy when under stress. (101-102)

Harris shares related musings. “Will scientists eventually find out that plants, like people, get depressed?” she asks. “That they have emotions of fear and love? That they can signal warnings to one another when an enemy approaches?” (1995: “Plant rhythms”). A passage from Ackerman’s book could serve as a response. “Plants sometimes find strength in numbers,” she writes, “if danger threatens, they can warn relatives. When an elm is being attacked by insects, for example, it releases a chemical that alerts others in the grove to produce poisons” (Ackerman 2001: 99). Evans, who provides the examples of Dandelions who shorten their flower stalks in response to mowing, and crop weeds who develop resistance to herbicides, adds that weeds are capable of displaying patterns of “learned behaviour” (Evans 2002: xiii).

The idea of plant learning and emotions, and of botanical strength in numbers, seems to confirm Stein’s view of garden plants as members of a social group. Describing plants in terms of guests at a social gathering, she writes about expanding the guest list, giving old plant friends priority, introducing new acquaintances, inviting strangers, getting conversation flowing and showing uncongenial guests the door in her role as garden host. One of Stein’s favourite “old friends,” for example, is the Blueberry, a plant she feels to be responsive, flexible and sociable. Members of this “tribe,” as she calls it, are “natural raconteurs” with a “common touch” that makes them easy to associate with other plants such as evergreens, flowers and tall grass, in hedgerows or foundation plantings (Stein 1993: 216-20). Pollan might suggest that the Blueberries are manoeuvring Stein into spreading them throughout her garden, and that the garden is collectively enlisting Stein to facilitate the activities of its inhabitants.

It is no wonder, in the face of all this plant capacity, that the gardener-authors admit to human control being an illusion. Lane writes that living things, particularly plants, don’t always take to the spaces where the gardener chooses to plant them. “What is propitious to the gardener,” he points out, “is not always so for the plant” (2004: 204). “Who am I to insist that they grow in a certain spot and stay there?” he asks (100). Chambers highlights the opposite phenomenon of plant over-cooperation, the result of an excess of plant livingness. “The shrubbery that we think ideal grows into a tangled mass,” he writes, “the tree that seems just the focus for the view grows up and obscures it” (1996: 160). Jones and Cloke specify the capacity of

trees to “hide buildings, cut off views, fill spaces” (2002: 69) as an illustration of tree capacity to slip the leash of human intentions (58).

Ackerman goes a touch further, putting the excess of livingness in terms of the downright “unruliness of growing things” and acknowledging that her garden is a “landscape where anarchy rules,” where any order she achieves is a temporary “flash of control in a wilderness of thieves” (2001: 245). She suggests, in fact, that compromise, uncertainty and failure teach valuable lessons, and that learning to live with them is one useful goal of gardening (69). Lorraine Johnson adds that garden failures are “full of wisdom and teaching ... a gentle tweak from the cosmos on the subject of control” (Johnson 2002: xxi).

Thoughts of learning in the garden evoke the capacity of plants to go beyond “employing” humans in their purpose of survival, to engaging humans in deep and intimate relationships. Harris writes about the varied learning experiences she has in her garden—from an old Lilac bush teaching her about nurturing (1995: “The Old Lilac”), to plants revealing their interdependency and leading her to realize humanity’s profound dependence on plants (“Points of View”). Harris refers to her garden as her library, teacher and guide (“Finale”)—a powerful statement on the significant role the personal garden plays in her life.

The relationship Whiteson develops with his garden is, in his view, mutually beneficial. He describes the garden as an integral part of himself, and he of it, a reciprocity in which creative energy flows both ways. Recognizing that the garden is crucial to his own survival (1995: 155) and that his continuing care is critical to the garden’s particular character, he points out that the space loses its distinction and definition without his daily attentions, and that his soul loses inspiration for writing without the garden’s “boundless vigor” to stimulate him (132-33). So synergetic does the relationship become that Whiteson even sees his own burial in the garden:

I see myself planted in the warm soil of my garden, wrapped in a shroud of giant banana leaves. Yet, lying in my grave, I feel more alive than ever.

The earth is active around me, dense with roots pushing through the ground, busy with earthworms chewing up rich grains of black clay, thick with nutrients to feed the foliage pushing toward the light above my buried body. Through the porous membrane of the banana skins I feel the earth’s good energies. (162)

In another compelling acknowledgment of the garden’s symbiotic influence and meaning, he writes toward the end of the book that the garden has made him, even as he has made it (168).

These are just two examples of the unique and meaningful relationships all the gardener-authors develop with the gardens they cultivate—relationships that substantiate Johnson's declaration that gardens:

connect us to the world, engage us in a dialogue with the same essential processes that make life possible, and this is, like all strenuous conversations, transforming. While each of us may be changing the world one coneflower at a time, the world of the garden is doing its own crucial work of changing *us*. (Johnson 2002: xvii)

If asked, I imagine Ackerman, Chambers, Harris, Lane, Stein and Whiteson would all affirm that plants and the garden have had a transformative impact on them, that they have been changed, each in a different way according to their particular involvement with the garden. Whiteson, who admits on the first page of his book that he never really wanted to be a gardener, that he preferred writing and working with his head rather than with his hands (1995: 3), develops a deeply symbiotic relationship with his garden, a dependence on the space for inspiration (133); he has been transformed from a writer to a gardener-author. Stein, who starts off as a traditional gardener, creating and maintaining an "Edenic" expanse of landscaped grounds, lawns and garden beds (1993: 10, 45) is changed by her involvement with and commitment to the space and its various zoological and botanical inhabitants, into an ecologically minded habitat steward following the "Master Plan" of surrounding ecosystems (74).

The influence of the garden and garden plants reaches even further, through the books the gardener-authors are inspired to write and through references made to those books. Botanical power and agency ripple out from the original garden site to the gardener, to other people who work or play in the garden spaces, to other living organisms who visit the space, to the readers of the books and possibly further to wider social, cultural, economic, political and ecological formations and networks (Jones and Cloke 2002: 7).

New Ground

Shaken loose of its human criteria and determinants, the concept of agency applies without too much difficulty or stretching to plants, particularly as experienced in the hybrid nonhuman-human space of the garden, and as portrayed in personal gardening books written by writers who are actively and passionately involved in their personal gardens. There is clearly more to plants than meets the eye.

I have attempted, to the best of my limited human abilities—and in full recognition that in a space as hybrid as the personal garden, human activities and associations are an integral part of the place—to present the concept of botanical agency in as bare-roots a manner as possible. This is perhaps presumptuous, considering the concept is being formulated by a human, in a human language, based on human

characterization and human testimony. I acknowledge the partiality and limitations of the endeavour. If we agree to accept these imperfections, then let us move on to consider what can be gained by recognizing botanical agency and planting seeds of the idea in the fertile new soil of inclusivity and open-mindedness.

What might take root is a move beyond a simple satisfaction of our own curiosities about the non-human Others that live among us followed by a way of thinking “past the human” about the other living inhabitants of this planet (Whatmore 2002: 5). Acknowledging that plants are neither passive nor innocent, that they have the capacity of directing the course of their lives and potentially influence ours, makes them worthy of new, or renewed, respect.

From renewed respect, it is not such a huge step toward considering plants as not quite so alien (Pollan 2001: xxv), to viewing them instead as “kindred mortals” (Whatmore 2002: 155) and significant others with whom we are bonded (Haraway 2003: 16) in “creative otherness” (Jones and Cloke 2002: 215). If we accept the terms of the bond, it has consequences—ethical consequences for “new, possibly gentler and more creative, ways of living and acting in the world” (Despard 2008: 87), of “living well together,” (Haraway 2003: 25), more accountably and less violently (7), with other life forms.

Johnson puts forward an “ethics of partnership” to replace the battle metaphor so prevalent in garden culture with a collaborative metaphor of “exchange and reciprocity, give and take” (2002: 67). Reciprocity is the approach proposed by Despard, who points out that further co-evolution depends to a large extent on “openness, and a commitment to keep working on our relationships with other species over time” (2008: 94). Considering that co-evolution is a mutual association that has long bonded us with plants, we would do well to embrace their agency and start working out a new, more sustainable ethic for living well with them. The personal garden, along with other landscapes of cultivation—where more is cultivated than just the soil—provides fertile ground for a (re)new(ed) beginning.

Notes

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1. *Oxford English Dictionary*, s. v. “agency.” <http://dictionary.oed.com>. Accessed 29 October 2007.

2. *Ibid.*

3. *Oxford English Dictionary*, s. v. “agent.” <http://dictionary.oed.com>. Accessed 29 October 2007.

4. *Merriam-Webster*, s. v. “agency.” <http://www.m-w.com/dictionary/agency>; and “agent,” <http://www.m-w.com/dictionary/agent>. Accessed 29 October 2007.

5. Also called “private” garden (Hitchings 2003), “domestic” garden (Williams 1995), “home” garden (Ban and Coomes 2004), “backyard” garden (Head et al. 2004) or “house lot” garden (Christie 2004), depending on the context, this space need not necessarily be attached to a home dwelling, as these terms suggest. Planters on balconies, rooftop planting beds and community garden plots—even vacant lots, neglected sidewalk containers and other unplanted and abandoned ground—offer space where individuals can tend the soil and nurture plants.

6. Sara Stein is, unfortunately, no longer a “contemporary.” She lost her life to lung cancer in 2005 at the age of sixty-nine.

7. *Oxford English Dictionary*, s. v. “materiality.” <http://dictionary.oed.com>. Accessed 29 October 2007.

8. This book is curious in that it offers no page numbers to orient the reader. Yet each page in the book contains a different, brief, titled meditation on Harris’s garden. When I reference this book, I will, therefore, be unable to provide the absent page number, but I will specify the title of the particular meditation referred to.

9. *Oxford English Dictionary*, s. v. “presence.” <http://dictionary.oed.com>. Accessed 29 October 2007.

10. *Oxford English Dictionary*, s. v. “action.” <http://dictionary.oed.com>. Accessed 29 October 2007.

11. *Merriam-Webster*, s. v. “action.” <http://www.m-w.com/dictionary/action>. Accessed 29 October 2007.

12. *Merriam-Webster*, s. v. “activity.” <http://www.m-w.com/dictionary/activity>. Accessed 29 October 2007.

13. *Oxford English Dictionary*, s. v. “intent.” <http://dictionary.oed.com>. Accessed 29 October 2007.

14. *Merriam-Webster*, s. v. “association.” <http://www.m-w.com/dictionary/association>. Accessed 29 October 2007.

15. *Oxford English Dictionary*, s. v. “capacity.” <http://dictionary.oed.com>. Accessed 29 October 2007.

16. *Merriam-Webster*, s. v. “capacity.” <http://www.m-w.com/dictionary/capacity>. Accessed 29 October 2007.

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