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Questioning care cultivated through connecting with more-than-human communities

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Abstract

This paper challenges the proposition that connecting with nature through direct encounters with nonhumans promotes ethical regard for them. It probes the limits of more-than-human ethics founded on personal encounters which struggle to cross distance and difference. I consider how personal engagement influences ethical perspectives and attend to processes by which care for nonhumans is learnt. Empirical research in community gardens reveals diverse relationships with nonhumans and underlines the importance of attending to qualities of relating. I propose typologies for thinking through more-than-human relationships, organising them according to degree of care. The research finds limits to gardening's potential to promote more care-full relations with others, with care limited by the prevalence of instrumental relationships with nonhumans. Learning to care for nonhumans requires a sense of connection to combine with disconnection gained through reflection, setting specific encounters within the context of more extensive relations and their power dynamics. More important than encounters teaching care for specific nonhuman dependents are those promoting understanding of the interdependent nature of more-than-human communities, and that stimulate reflection on the cumulative impact of a human tendency to forget this.

Keywords: care ethic, more-than-human geography, community gardens

Introduction: The urge to reconnect with nature

Learning to live more responsibly and harmoniously with nonhumans is a challenge about which geographers have much to say. To some the problem is rooted in a tradition of thought which typically excludes plants and other nonhumans from moral regard, leaving them vulnerable to neglect (Hall, 2011). Countering this centres on expanding the social collective benefiting from ethical consideration to include nonhumans (Whatmore, 2006; Whitehead & Bullen, 2005). Social and cultural geographers draw attention to the potential for lively more-than-human communities (Hinchcliffe & Whatmore, 2006), and pursue ways of relating to the world as multispecies entanglements (Taylor & Pacini-Ketchabaw, 2015). As sites of prolific everyday encounters with nonhumans, gardens have been a recurrent focus for discussion of human relationships with nonhumans, valued for blurring boundaries between nature and culture (Panelli, 2010). Community gardens¹ in particular receive significant geographic attention, and are seen to exemplify heterogeneous communities with great potential to transform ethical positions towards nonhumans (Donati, Cleary & Pike, 2010).

Collective and shared gardening take many forms which are flourishing globally, with a recent surge in participation in the global north. In 2016 the UK umbrella body for community growing, the Federation of City Farms and Community Gardens had almost 450 members; the equivalent organisation in North America had more than 2000. These figures may not capture the full extent of activity which includes rather informal initiatives (Guitart, Pickering & Byrne, 2012). Those sharing a garden may be neighbouring residents focused on leisure, or participants in state-sponsored programmes using gardening to achieve ends such as offender rehabilitation (Pudup, 2008). What unites them is a spirit of cooperation, the will to enhance life for gardeners and possibly the wider community. There is a long-standing tradition of celebrating community gardens as sites of care for nature, where experiences encourage pro-environmental behaviour (Bartlett, 2005; Brook, 2010; Colding & Barthel, 2013; Milburn & Adams Vail, 2010; Okvat & Zautra, 2011; Turner, 2011). This is symptomatic of a history of research advocating community gardens as positive socio-ecological forces, now countered by more critical perspectives (Tornaghi, 2014).

This paper challenges the proposition that encounters with nonhuman nature promote ethical consideration centred on feelings of connection. It considers acts of care in which humans take responsibility for nonhuman others by meeting their needs, and questions whether this equates ethical regard. Relationships with nonhumans in community gardens in the UK are shown to range between tending and killing. Rather than assuming gardening equals ethical proximity to nonhumans, I consider how people relate to various beings in various ways, and whether interactions common in gardens transform attitudes to nonhumans. This responds to the need for more critical perspectives on community gardening through attention to gardeners' practices and relationships (Classens, 2014; Drake, 2014; Milbourne, 2012). Firstly, I propose a typology for relationships within more-than-human communities organising them by qualities of relating. This furthers geographers' pursuit of thicker accounts of nonhumans (Lulka, 2009), offering a conceptual framework for thinking through more-than-human relationships. Secondly, I interrogate whether people are moved towards the caring end of this spectrum through close encounters with nonhumans. The empirical research demonstrates it is not inevitable that practices entailing close engagement with nonhumans offer a route to more caring relationships. Like Ginn (2013) and Collard (2012), I probe the limits of more-than-human ethics founded on encounter and proximity, but where they describe particular relationships to nonhumans, I consider processes through which practice interacts with values, and how regard for nonhumans is encouraged. I find that connecting with nonhumans can bring them within a moral community, but this ethical concern has limits. Extensive care for nonhumans requires a sense of connection to be combined with a degree of disconnection, the ability to distinguish between care founded on dependence and interdependence, and to recognise humans' power to tend nonhumans for instrumental purposes.

Three community gardens

To investigate the potential for close encounters to promote ethical regard for nonhumans research focused on how community gardeners relate to others. Inspired by more-than-human geography it considered humans and nonhumans as lives of comparable value and equally significant influence in the world (Panelli, 2010; Whatmore, 2006). Embracing research participants who cannot speak made it

important to attend to nonverbal communication and modes of life beyond the representational (Anderson & Harrison, 2010; Pitt, 2015). Case studies of communal gardening offered insights into encounters of varying qualities and their ethical dimensions, through comparison of human-human and human-nonhuman relations, and of different people's relationships.² Three sites in the UK were selected to reflect the diversity of community gardens (see Guitart, Pickering & Byrne, 2012; Nettle, 2014; Pearson & Firth 2012):

Garden 1 is operated by a community development charity as a site for employment training and greenspace for local people. The largest site studied, it includes considerable growing space, woodland, wetland and recreational areas. It is in a small post-industrial town with high levels of socio-economic deprivation.

Garden 2 occupies a very small space behind an inner-city community centre operated by a social housing provider. It was created as a pleasant space for centre users of all ages. A voluntary committee takes responsibility for the garden and oversees regular gardening sessions.

Garden 3 is on the edge of a small rural town, operated wholly by volunteers. It produces organic food for volunteers and customers. In line with permaculture³ the site incorporates wildflowers and uses low-impact watering and composting techniques.

The empirical material here focuses on feelings about nonhumans and interactions with them. The following section details the notion, endorsed by community garden advocates, that humans need to reconnect with nature in order to care for it; I then outline what it means to care for others. Subsequent sections detail empirical findings focusing on signs of care, its converse, and transformations in gardeners' ethical relations with nonhumans.

Community gardening as a route to environmental concern

An aspiration to live more responsibly with others is commonly articulated as a need for greater connection, reversing anti-ecological separatism (Gibson-Graham & Roelvnik, 2009). The field of environmental education has been particularly

influenced by the idea that lack of connection with nature is a contemporary malaise to be countered, hence a focus on ‘reconnecting children with nature’ (Fletcher, 2016). Environmental education programmes operate on the premise that direct experience of the natural world generates knowledge which influences attitudes then enacted in behaviour (Goralnik & Nelson, 2011). Geographers have challenged the basis of this model with its dualist vision of nature-culture which does not reflect human lives always entangled with those of other beings (Taylor, 2011). It seems equally incapable of accounting for experiences within community gardens, but for adults and children gardening is often promoted as ideal practice to foster reconnection. A leaflet from the UK’s largest network for community food growing states: “Community growing spaces are projects that reconnect people with nature, food and each other”. Another conservation charity leaflet says of community gardens: “Connecting to nature leads to an increase in environmental awareness and environmentally friendly lifestyles and helps bring communities together”.

Community gardens have long been championed for their supposed ability to reconnect people to nature by mitigating its absence from urban life (Brook, 2010; Colding & Barthel, 2013; Holland, 2004; L. Lawson, 2005; McClintock, 2010; Bartlett & Pretty, 2005). As summarised in this reflection on US discourses:

community garden connotes an idealized space of coming together among people and between people and nature (Pudup, 2008, p.1231).

As green oases in the city gardens are said to heal rifts between people and nature riven through urbanisation and industrialisation (McClintock, 2010; Turner, 2011), so a New York community garden is described as crystallising the notion of re-engaging with nature (von Hassell, 2005). A desire for reconnection is said to drive community gardening’s popularity (Firth, Maye, & Pearson, 2011; Guitart et al. 2012; McClintock, 2010; Martinez, 2009; Turner, Henryks & Pearson, 2011). The narrative of reconnection promotes community gardens as places offering tangible connections to nonhuman nature (Beilin & Hunter, 2011; Galt, Gray & Hurley, 2014; Kurtz, 2001; Martinez, 2009). This is regarded as beneficial for encouraging attitudes and behaviour more respectful of the environment (Macias, 2008). Gardeners’ direct, affective engagement with nonhumans is identified as having a strong ethical dividend (Donati et al., 2010; Turner, 2011). This hands-on approach is seen to result in better understanding of how nature works, promoting ecological citizenship (Baker, 2004; Corrigan, 2011; Lekvoe, 2006; Turner, 2011).

Opportunities for ‘meaningful interaction with nature’ in gardens are seen to help people realise the importance of caring for it (Colding & Barthel, 2013). It has been argued that engagement with nature results in the realisation that humans depend on nature, so people become more likely to value it (Brook, 2010; Macias, 2008). This mirrors a model of environmental education founded on transforming attitudes through direct experiences of nature (Goralnik & Nelson, 2011 and 2014).

A push to connect with nonhumans is allied with the rise of ethics conceived as embodied, particular and founded on relations (Ginn, 2013). Non-representational thinking leads to an emphasis on ethics centred on affective encounters in which responsible bodies are those open to the world, so becoming moral is not a case of learning rules but of developing a generous sensibility towards others (Popke, 2008). This mode of ethics appeals to those concerned with nonhumans for affective relationships circumvent the need for speech and other peculiarly human traits (Whatmore, 2006). The hope is that encountering nonhuman vitality encourages people to recognise that humans are not unique, so do not deserve to be masters of the universe (Bennett, 2010). For Haraway ethical relationships with other species centre on encounters, getting close enough to feel what it might be to cohabit respectfully with other animals (2008). The result is what Collard (2012), identifies as an intimate ethics reliant on getting close to nonhumans which Ginn (2013) characterises as a more-than-human ethic of attachment. Respect and responsibility for nonhuman nature is seen to arise from direct experience and feeling close; I will argue this can be a limited version of ethical responsibility.

If opportunities for bodily contact with nonhumans have ethical potential, gardens are important sites, ripe with opportunities. Direct personal engagements are emphasised as stimulating concern and responsibility for nonhumans (Brook, 2010; Hale et al., 2011). It has been argued this has ethical implications beyond a garden:

By helping people reconnect to natural systems, community gardening might help expand awareness of environmental issues in general, and encourage civic participation to take positive actions (Okvat & Zautra, 2011, p.381).

These authors suggest that the result is a form of community in which nonhuman nature receives moral consideration. Community gardens which open up relationships with soil, plants and bugs offer encounters of liveliness and pleasure which inspire people to think differently about life, making them “hotbeds of

environmental, cultural and social activism and learning” (Donati et al., 2010, p.220). This suggestion deserves critical examination because, if correct, it suggests value in promoting practices like community gardening to establish more ethical more-than-human communities, a value which can only be harnessed if we understand *how* engagement with nonhumans changes ethical outlooks.

However, the shortage of empirical evidence supporting this premise must first be addressed. The wish to reconnect with nature is cited as motivating community gardeners without sufficient examples (Firth et al., 2011; McClintock, 2010), whilst some cases demonstrate this is not a universal desire (Colasanti, Hamm, & Lithens, 2012; Domene & Sauri, 2007). Gardeners’ will to engage with nature is not without its ambiguities, suggesting no simple association between gardening and environmental concern (Bhatti & Church, 2004). Those who garden may be inclined to environmental attitudes but the causal direction is unclear (Schupp & Sharp, 2012). More broadly, knowing whether contact with nature transforms ethical regard is problematic because it is not clear what counts as experiences of nature, and not all ‘nature contact’ experiences have ethical significance (Russell, 1999).

Beyond empirical weaknesses of claims for community gardening as a route to care for nonhumans there are ontological flaws meaning the narrative of reconnection paradoxically, reinforces the notion of human separation from nature (Fletcher, 2016). Much scholarship on urban gardens takes a simplistic view of the relationship between nature and society, assuming a gulf between the two with nature on the positive side of the divide (Classens, 2015). This overlooks the complexity of relations between people and nature which is revealed through close study of what gardeners do and feel. Gardeners are equally rewarded and frustrated by nature, having divergent relationships with its various components (Hitchings 2006; Power, 2005). We need closer reading of variegated multi-species relationships, recounted without reinforcing human exceptionalism (Taylor & Pacini-Ketchabaw, 2015).

The benefits of reconnecting with nature have been widely inferred without defining what reconnection is, how it happens or transforms ethical perspectives. It remains unclear what experiences facilitate ethical epiphanies, or how insights from gardens can be transferred. Some respond by focusing on personal experiences of gardening and gardeners’ close engagement with nonhumans, so Turner describes how

“gardeners bodies are engaged with nature” in micro-level engagements such as feeling the soil between their fingers (2011, p.520). She suggests embodied encounters which connect gardeners with nature in one place, reconnect them to broader ecological processes providing an important foundation for sustainable urban practices. Cameron similarly focuses on the significance of bodily encounters in prompting attitudes and behaviour sensitive to the realities of climate change (2011). Donati et al. focus on nonrepresentational experiences of nonhumans:

we read community gardens as urban geographies in which the mundane and everyday practices of gardening may produce new and more meaningful connections and networks with the more-than-human communities of the city (2010, p.222).

They argue that experiencing bodily pleasures of interconnectedness with natural processes can nurture pro-sustainability relationships and thinking, because knowledge gained through sensory experience of soil, plants and food is expected to stimulate political epiphanies (Carolan, 2011). Reconnection with nature as a prompt for ethical concern for nonhumans rests on encounter, getting close, engaging directly, personal relationships.

Encountering ethical concern for nonhumans

Assuming bodily engagement with nonhumans - as occur during community gardening - as a basis for ethical concern relies on moral regard initiated through encounters with difference. But mechanisms through which encounters with nonhumans foster wider ethical responsibility are unclear (Russell, 1999; Turner, 2011). Bringing things into relation might have many outcomes because things can relate in different ways (Anderson & Harrison, 2010; Hinchcliffe, 2010). Engaging with nonhumans might lead one to recognise the connection between all lives but this does not provide an unequivocal moral compass (Lulka, 2009). A logic that connecting with nonhumans leads people to value them takes proximity as the foundation for ethical relationships: we care for those close to us. But it is not clear that closeness is an inevitable source of care, or that spatial proximity overcomes separation by difference. Valentine (2008) suggests deeper encounters of purposeful engagement *might* foster care – giving community gardens as an example (p331) – but the question remains how to scale from encounter across time, space and other influences. She suggests that promoting encounters between people has limited

impact on values so struggles to foster enduring respect for others. If engagement with different kinds of people fails to bring them within an ethical collective it is reasonable to question whether human encounters with nonhuman others do likewise.

Proximity is a problematic foundation for ethical relationships because of the need to care for those at a distance (McKewan & Goodman, 2010; Popke, 2006). Encounter excludes nonhumans we cannot meet and species which suffer from being too close to people (Collard, 2012). Murdoch (2006) suggests that overcoming humans' significant power to do harm requires sense of connectedness to be accompanied by a sense of separation through critical reflection on our unique power and responsibility. But environmental education tends to focus on individual experiences, rather than political-economic systems driving ecological destruction (Fletcher, 2016). Emphasis on direct personal experience of nonhumans may have limited impact unless complemented by intentional reflection on ethical values (Goralnik & Nelson, 2014). For community garden encounters to have an ethical dividend gardeners may need to consider the nature of relationships, supplementing connection with disconnection by reflecting on their position amongst multi-species power relations.

Whilst community gardens are replete with opportunities to encounter nonhumans, a greater quantity of relationships does not equate greater care. Community gardens bring people together, but community is a product of *how* people interact (Drake, 2014). I extend this argument to interactions within more-than-human communities: to know whether a practice centred on encountering nonhumans stimulates concern for nonhumans requires attention to relationships' *qualities*. As will become apparent a key quality to be interrogated is the motivation driving humans to care for nonhumans, particularly whether the goals are instrumental. This can be guided by Popke's pragmatic understanding of ethics as concern for concern for the nature of interactions with, and responsibilities for others (2008, 2009). Ethics are responsibility for the common, enacted in deed and thought; to act ethically is to act responsibly towards others, bringing them within the collective benefiting from responsible interaction (Popke, 2009). This perspective is helpful in the context of community gardens because Popke roots ethical regard in notions of community and includes nonhumans within the social. Understanding ethical concern means

following processes of inclusion and exclusion to see who/what belongs to the community within which responsibility circulates, by making visible relations enacting community, and pathways through which ethical responsibility flows (ibid.).

We seek, therefore, ethical regard for nonhumans apparent in responsibility extended towards them. For embodied activities like gardening it seems appropriate to approach this via a feminist ethics of care, a situated version of morality as enacted through practical work (Popke, 2006; Tronto, 1995; Van Dooren, 2014).

Fisher and Tronto define the care ethic as:

everything that we do to maintain, continue, and repair our 'world' so that we can live in it as well as possible. That world includes our bodies, ourselves, and our environment, all of which we seek to interweave in a complex, life-sustaining web (1990, p.40).

Care starts from knowing about others and is enacted through practical work of doing something to meet another's needs (Fisher & Tronto, 1990). To give care is to take responsibility for another to enable them to live well (Tronto, 1995). This requires attentiveness, knowing what another needs and how to respond:

To take care of someone or some thing or some situation, we need to know enough to predict or to try to guess at the outcome of our intervention.

Assuming responsibility means that we are accountable for consequences.

(Fisher and Tronto, 1990, p.43).

One might then expect care-full gardeners to attend to nonhumans, to know about them, to judge their needs and how best to meet them, and to be mindful of the consequences of doing so. I now test this by examining how community gardeners relate to nonhumans.

Community garden relationships

Interactions with nonhumans – plants, animals, insects, soil, water – were frequent at each garden, but there were inconsistencies between gardens and gardeners as individuals exhibited very different relations to nonhumans depending on person, situation, and nonhuman. To understand this I developed a typology categorising interactions according to how nonhumans were related to, and signals of a gardener's feelings (*Figure 1*). This is illustrated by fieldwork examples which

occurred several times across all three gardens. The typology uses familiar categories of human relationships to illuminate variation in those with nonhumans, confirming they are related to in multiple ways (Lulka, 2009). The relationships on the left are most associated with those between humans; the right hand column demonstrates parallels in relationships with nonhumans.

The typology offers a heuristic device, highlighting heterogeneity masked within the category 'nonhuman', challenging the assumption that garden encounters with nonhumans are caring. Community garden encounters with nonhumans are undoubtedly embodied, personal and riddled with affect and there is value in accounting for them as such (Carolan, 2011; Donati et al., 2010). But remaining with the detail of particular relationships makes it difficult to draw implications relevant elsewhere, or to understand links between how individuals relate to nonhumans in different contexts. Categorising relationships attempts an analytic move beyond the specificities of relationships between individuals at a certain place-time. The typology may apply beyond the case studies to help interrogate relationships observed elsewhere; this might reveal, for example, whether caring for a bug close to home is associated with caring for global creepy crawlies. If the narrative of reconnection is borne out, we might expect that through gardening people's relationships with nonhumans progress towards the bottom of the typology, and that this represents greater ethical regard for others. However, relationships with dependents are ethically complex as care for a nonhuman driven by instrumentality fundamentally prioritises human needs.

[Figure 1 here]

Caring about and for nonhumans

The typology shows community gardeners' relationships with nonhumans ranging between killing and tending. To know whether and how community gardens cultivate care for nonhumans I now examine experiences at each extreme of this spectrum. Contrasts between tending and neglect reveal how gardening can cultivate a care ethic and the confines of this, demonstrating the limits of relying on encounters with nonhumans to promote ethical concern. It will become apparent that it is essential to question who benefits from relationships of care, for what end

care is given and who decides, to reveal instrumentality which prioritises human needs, and exerts power over nonhumans.

The nonhuman interaction community gardeners noted most was the pleasure of being around plants and greenery, often cited as a strong attraction for going to a garden, a pleasure heightened by participating in growing:

The fact that you plant the seed and then you've got a plant coming. You can put a couple of tomato plants in: nothing. Then from a seed, up, and then you've got a six, seven foot tomato plant with hundreds of tomatoes on. It's amazing (staff, Garden 1).

Other nonhumans were regarded with delight and respect: Garden 2 was famous for frogs with children happy to see the first spawn in spring, and adults equally excited to discover one under a plant. Instances of pleasure in the company of plants and animals exhibit a degree of familiarity with particular nonhumans, apparent through knowing their names and a will to be near or touch them which equates 'caring about' (Fisher & Tronto, 1990, p.42). Gardeners know nonhumans such as frogs are present and bring something to their lives, they attend to and know about them.

Companionship sometimes developed into overt actions of responsibility, meaning caring about another became caring for (Fisher & Tronto, 1990, p.43). People described such responsibility in the context of community, associating this with closeness, care and cooperation. Gardener groups included close friends, passing acquaintances, colleagues, strangers and some people who were disliked. Whilst neighbours or strangers might pass each other without interacting (Painter, 2012), community members are expected to interact more intensely (McMillan & Chavis, 1986). One volunteer felt the area around Garden 2 had a strong community spirit because "people look out for each other". Interactions suggested that the closer a relationship the more likely gardeners were to touch and maintain eye contact, to demonstrate curiosity about life outside the garden, to deliberately seek the other's company and express enjoyment at being together. Care for fellow gardeners was exhibited through being helpful or empathetic, offering material gifts of food or cigarettes, and providing emotional support through troubles. Something as simple as knowing to put sugar in someone's tea demonstrated knowledge of another's needs; taking responsibility for meeting these equals care giving (Fisher & Tronto, 1990).

Community gardeners demonstrated care for each other, but did their moral community include nonhumans? When asked about community a majority described it as exclusively human, but a minority included nonhumans on the grounds that any others with whom people form meaningful relationships belong. As an employee at Garden 1 said, plants or “anything you’ve nurtured” become part of your community because “you just care and tend for them”. These gardeners focused on the quality of relationships rather than similarity to themselves as a route to inclusion (see Bingham, 2006). In heterogeneous communities relationships are not confined to humans so signs of care between people might have parallels in interactions with nonhumans.

The most obvious and persistent form of responsibility for nonhumans was the will to tend plants. This account is emblematic of tending a dependent plant:

As she worked in the greenhouse Simone told me how she grows tomatoes. She explained about regular watering and feeding, removing leaves when the plant is a certain size, watching for signs of blight. As she spoke she took the upper foliage in hand and gently wound the string around it, allowing it to hold upright without the leaves being squashed. I asked about a piece of paper wrapped around the stem. She told me it had snapped almost through so she used the paper like a plaster to hold it together (fieldnotes, Garden 3).

One afternoon at Garden 2 was dedicated to potting on seedlings Sean brought from his greenhouse:

Sean demonstrated to John how to ease individual seedlings from the compost, hold one lightly between thumb and forefinger and lift it by the leaflet rather than the vulnerable stem. He transferred it to a bigger pot, gently lowered the roots into a prepared well before using his fingertips to ease compost around the base and firm it down. Sean watched carefully as John mimicked the process, correcting his attempt to tug a seedling by the stem, urging him to be careful. Another volunteer suggested John should water the compost not the leaves as droplets would intensify the sun’s rays and damage the seedlings. This prompted brief panic about whether they should be shaded, John fretting that they had only been there briefly and already risked being killed (fieldnotes).

Such treatment demonstrates that gardeners understood and provided for plants' needs; the gardener's task is to tend plants, learn how to meet their needs, and take responsibility for them. Gardeners were 'taking care of' by dedicating time and resources to others' needs, judging how actions would meet these needs, and what would happen as a result (Fisher & Tronto, 1990).

Plants were not the only nonhumans cared for. Toni, a volunteer at Garden 1 enjoyed seeing butterflies; if she found one in the polytunnel she caught it, gently cupping it in her hands to carry it outside. She would not let smokers touch because nicotine-stained hands damage fragile wings. The fauna which received most dedicated attention were bees, with each garden having areas planted for them. Sean's explanation of why is instructive as bee-friendly planting was the antithesis of the formal flowerbeds he preferred and he dismissed other suggestions to dedicate parts of the garden to wildlife:

I think initially because there was a very big push media-wise to kind of step away from the formal gardening of like the very closed up flowers, chrysanthemums and things like that. Because the – the very publicised downfall of the British bee and things like that. But also I think it um it encourages a lot of – a lot more produce in the garden because obviously if you're pollinating the garden'll produce immeasurably better (volunteer, Garden 2).

Gardeners recognised bees' needs and exercised care for them by planting flowers known to be good sources of nectar as gift to them.

These examples demonstrate that community gardeners dedicated considerable effort to tending particular flora and fauna, but this was not the only way they related to nonhumans. Bees and butterflies were remarked on when spotted in a garden but other insects passed without comment, or remained unnoticed strangers. Nonhumans were subjects of disgust as when one volunteer at Garden 2 leapt away at any prospect of getting close to a slimy frog, or when accidentally touching a slug caused revulsion. Fauna sometimes elicited more violent reactions:

Jonesy came over to chat. He noticed some tiny red insects running on the bench and began squashing them with his finger, saying as he did "what are these?" (fieldnotes, Garden 1).

As suggested in *Figure 1*, killing is opposite of caring for; less violent acts when gardeners did not notice creatures, or allowed seedlings to die represent neglect.

Toni often drew attention to plants smothered by weeds or which had not been watered, remarking “no one else cares”. Again we see that community gardeners relate to nonhumans in complex ways, and do not unequivocally care as a result of close encounters.

Who cares, for what, to what end?

To understand this complexity and whether gardening promotes ethical responsibility for nonhumans requires consideration of why some nonhumans are tended, others neglected or killed, and why some gardeners never take responsibility. It is imperative to question the motive behind care for another and who/what ultimately benefits as this may determine whether actions equate ethical responsibility. At the case study gardens most space and time was dedicated to edible plants, fruits, vegetables and herbs planted, fed and watered in anticipation of a harvest. Weeds were removed, particularly where competing with crops, because where the needs of different nonhumans conflicted priority went to ones feeding - literally and figuratively - human goals. Trays of just-sown peas were lifted out of reach of mice in Garden 1’s polytunnel because they should feed people not rodents. Gardeners were most concerned with nonhumans clearly contributing to their needs; acts of care were often driven by instrumentality.

For humans and nonhumans, entry to the garden collective came through making a contribution. Community gardeners have reciprocal relationships founded on exchanging work and sharing crops (Teig et al., 2009). Those who are lazy do not deserve a share of the harvest, moreover, they are not true community members as Simone’s comment illustrates:

maybe he has dropped in once or twice over the year, and that’s lovely to have his support at the meeting but it doesn’t feel like he’s part of the community because there’s not regular contact and he’s not actually physically contributing to what’s going on (volunteer, Garden 3).

Belonging comes through contributing, a process of inclusion extended to nonhumans; pests which take from the garden are excluded whilst creatures which contribute food, joy or ecosystem benefits are welcome.

Not all nonhumans collaborate with gardeners' goals (Power, 2005), hence the distinct treatment of gastropods and bees: I cannot think of a single gardener who did not kill slugs, whilst bees were universally provided for. The basis for deciding whether to kill was highlighted by Melissa, the most vociferous champion of wildlife at Garden 2:

Melissa: Everybody was horrified that someone that's a vegetarian and into saving the planet can kill snails quite easily. I do get satisfaction out of killing the snails.

Hannah: Do you? So that's the complete opposite of what people would expect of you.

Melissa: I know, I'm very embarrassed about it.

Hannah: What's so satisfying about it?

Melissa: They do so much damage in my garden at home I think that the fact that I'm reducing their numbers, even by one.

Hannah: Like revenge?

Melissa: Yeah, it's just [mimes throwing them] 'that's one that's not going to get my lettuce'. 'That's another one that's not going to eat that'. Coz they eat anything in my garden. I haven't got a lot of veg, as I said, I don't really grow lettuce or anything which is their favourite but they'll eat herbs that are really strong scented and the things you wouldn't have thought that they'd like. They-oh, I hate them.

Consensus was that if slugs ate weeds no one would mind, but by taking crops they became enemies with no right to inclusion; they do not belong so do not receive ethical concern (Popke, 2009). In contrast, bees are invited in through dedicated planting because they contribute to the community.

As Fisher and Tronto describe (1990), care starts from noticing another and how it contributes to our lives. Larger, obvious presences like frogs were likely to be attended to at Garden 2 whilst hidden, mysterious worms or microbes were rarely considered. Such faceless, perhaps ugly beings may be harder to relate to ethically than more appealing human-like ones (Taylor & Pacini-Ketchabaw, 2015). Bees were included because their ecological contribution was understood; Sean and co. heard lots about bees so knew how to tend them and why this is important. In contrast, no one could see how slugs usefully contribute hence they were ripe for killing. This

suggests that gardening as a route to care depends on how much it helps people understand nonhumans' ecological contribution. If care starts from judging what others need then overcoming ignorance of nonhumans is a prerequisite. Toni, one of the most knowledgeable plants-people at Garden 1, was able to differentiate their needs so knew cucumbers do not need much moisture, hence her frustration when someone drenched them. She put a sign next to the plants reading 'I am cucumbers', alerting people not to water them. But the drenching continued because others were not aware that being cucumber means needing dryness. Those who gardened alongside knowledgeable people like Toni could learn about plants' needs:

Years ago obviously I had no time to do gardening or anything, I'd walk past a flower, if I walked over it I wouldn't think twice about it. But now I watch, look and think 'ooh that's growing there' (Graham, volunteer, Garden 1).

With Toni's guidance Graham learned to notice wildflowers then skirted round them with the mower; he tuned his attention to differentiate plants so could treat each appropriately.

Sally was highly aware of environmental issues and believed gardening encourages people to attend more to nonhumans:

I think when you're in your house or your flat – in this kind of area- you go to work then you come home and you do nothing outside your sort of bubble. [...] I think it's just the focus. I think – I think things like if you're in the garden and you can hear birds then you actually sit and listen to the birds, and you realise that there are birds. Whereas you can walk around and you can hear birds all over the place but like there's, yeah the focus and the appreciation of it I think that it's a central focus when you're in the garden. And you can – you can ... I don't know. Like, know that it's *there* more (volunteer, Garden 2).

Sally reflected the view that attentiveness to difference is a valuable foundation for ethical relationships with nonhumans (Hinchcliffe, 2007; Hinchcliffe & Whatmore, 2006). If she is right that gardeners are open to being affected by others we might expect gardening to cultivate ethical regard for nonhumans. However, becoming more open to other forms of life puts us amongst a world full of other things but we still have to determine *how* to live together (Bingham 2006, p.495; Gibson-Graham & Roelvnik, 2009). Care depends on attending to others (Fisher & Tronto, 1990), but not all that gains attention receives care; slugs receive harmful attention. Whilst,

as Sally suggests, community gardens can promote awareness of more of the world's beings, this does not necessarily result in care for nonhumans, rather it leads to negotiations regarding whether to kill or tend. The quality of relationships with nonhumans is more significant than their quantity.

In Toni's opinion gardening tends to a positive outcome for nonhumans because it "teaches people to care for things". People like Graham and Sean came to care more about plants and bees, but they learnt this not through directly encountering nonhumans but from people with knowledge of them. Interactions within human communities are crucial because a novice gardener does not necessarily intuit how to care for others, but can learn how by interacting with experts. John told me how, before going to the community garden, he was the antithesis of an environmentalist, littering, driving a huge car, not recycling:

I used to constantly bitch about the environment and people who were environmentally friendly. It's not that I never saw the importance previously, it wasn't I didn't know. I think it was more I just didn't care.

By mixing with people with very different attitudes he gained environmentally minded friends and this changed his opinions:

I think I've seen that caring about the environment doesn't necessarily mean that you have to be militant about it, it just means being more considerate.

It was greater contact with people with caring attitudes, not with nonhumans, that brought these ideas into consideration. Gardeners likely to neglect flora and fauna were also influenced by relationships with other people. At Garden 1 several volunteers and staff expressed negative views:

this is supposed to be for the community, there should be more stuff here for the community. And then they might take pride in the place and look after it.

They [the organisation] don't seem to be – to care down here for some reason (Arthur, volunteer).

These volunteers said they did not feel appreciated so felt no strong commitment to the garden or its community; feeling un-cared for themselves they were disinclined to care for others. They looked after plants they had sown, but not those with which they had no personal involvement, and neglected plants were left to die, showing how encounters with other people may be a significant negative or positive factor in whether experiences change attitudes to nonhumans. Such mixing might prompt reflection on intent behind action, which might stimulate broader ethical

transformation by developing new values rather than changing particular behaviours (Goralnik & Nelson, 2014). To transform ethics, encounters with new humans may be more significant than those with nonhumans, giving community gardens where people come together an advantage over solitary or domestic gardening.

Nonhumans beyond the garden

So far the qualities of gardeners' relationships with nonhumans reveal reasons for killing or tending, and how people might come to care through community gardening. For gardening to promote environmental stewardship any sense of responsibility must extend beyond garden places and beings which represent a tiny proportion of human interactions with nonhumans. I now consider two limits on the extent of care learnt through gardening: failure to extend beyond specific experiences to general principles or wider behaviour, and instrumental goals which keep nonhuman dependents subordinate to more powerful humans.

Community gardeners' concern for nonhumans was largely directed to those close by, an example being use of peat compost at Gardens 1 and 2. Peat comes from vulnerable habitats that support unusual plants and insects so UK conservation bodies discourage its use (Defra, 2013; Natural England, 2006). A volunteer at Garden 2 and staff member at Garden 1 mentioned they 'really shouldn't use peat' but did not raise the issue with others. Peat was avoided at Garden 3 because volunteers did not want to damage bogs, a choice enacting care for nonhumans dependent on remote habitats. This demonstrates potential for garden-centred practices to exercise care at a distance, and for gardeners to relate to non-proximal nonhumans. But contrasts between the gardens illustrate that taking responsibility for nonhumans within a garden does not always translate to more extensive care.

The extent of care may be further limited if gardening remains bracketed from other aspects of a gardener's life so does not inform lifestyle (Turner, 2011). Gardeners may not have gained pro-environmental values through gardening as Melissa suggested: "I think most people that come here are pretty environmentally friendly any way". Simone was also not sure about the direction of causality: "Maybe it's that you already are [environmentalist] and that's why you garden". For people who

regard nonhumans as important a garden might not teach this, rather reinforce existing attitudes. Community gardening encouraged John to respect some nonhuman features of the environment but he had not become a model ecological citizen. He told me that although he recognises the value of organic food from the garden, mostly he eats whatever is convenient and cheap regardless of ecological impacts. His environmental education focused on practical engagement which, without reflective discussion may change individual behaviours but leave enduring values untouched (Goralnik & Nelson, 2014).

Extensive and enduring ethical concern for nonhumans depends on recognising human interdependence with others everywhere, including those distant in space, kind and familiarity (V. Lawson, 2007; Popke, 2006). Toni cared about flora and fauna in and beyond the garden because:

if we don't look after our wildlife, one they'll be extinct, there'll be no pollinators, our food'll be in trouble. And um wildlife's important as well for the bio- you know – it's all in a chain isn't it, it all goes round. And if we lose our wildlife - well that could be the planet, you don't know do you. [...] I wanna keep the butterflies, we *need* to keep the butterflies, keep bees, and all wildlife. And they're good for your garden (volunteer Garden 1).

Toni recognised that humans depend on nonhumans so cared for them, but this is also care for self as people thrive amongst plants which give food and pleasure. Careful gardeners may have humans at the centre of their concern. Gardener as care-giver decides what the recipient needs and has power to define how the relationship unfolds (Fisher & Tronto, 1990). Toni decided whether it is cucumbers or daisies in the polytunnel, whether mice or people eat the peas, she had more power than nonhumans. Gardener becoming care-giver might not disrupt a human tendency to dominate nonhumans because caring for dependents can still prioritise human needs.

However, an alternative, more equitable care ethic is apparent in some community garden encounters. A selection of gardeners – mostly at Garden 3 - saw community gardens epitomising an ecological worldview without human exceptionalism:

you're reconnecting with nature. And nature is how it all works isn't it? It's what we're part of. ... And our separation from it is part of what causes us all the problems we've got (Rob, volunteer, Garden 3).

For Simone, working at the garden and being “part of the cycles” is not a choice but an ontological fact, so without it she “doesn’t feel real”. Those sharing her outlook understand the world to constitute relations; relationships with nonhumans culminate in interdependence not dependence and may not be motivated by instrumental goals (*Figure 2*). Qualities of interaction in *Figure 1* are underpinned by recognition of the all beings’ fundamental connectedness, an indelible relating connecting everything; one may *feel* certain creatures are strangers but all beings are always related.

[Figure 2 here]

The outlook summarised in *Figure 2* is associated with a specific mode of care founded on recognition of interdependence, a relational view of the world which is central to permaculture (Holmgren, 2002), the philosophy underpinning Garden 3. Permaculture fosters respect for others because our existence and theirs is interdependent (Holmgren, 2002). De la Bellacasa aligns this with the feminist care ethic, interpreting permaculture gardening as ‘doing’ care for multi-species collectives (2010). For Simone, permaculture translates into gardening mindful of closed cycles and balance: “you can’t keep taking without putting something back”. It encourages diversity and treats things kindly, she will not use slug pellets because every action affects the system so poisoned slugs harm birds and soil. Nonhumans are important whether she likes them or not, irrespective of whether they contribute to her plans.

In the cases considered here, more extensive and equitable care for nonhumans was associated with permaculture’s relational ontology which recognises the importance of maintaining the integrity of an interdependent whole (De la Bellacasa, 2010). This encouraged care at a distance for different or remote others like nonhumans in peat bogs. Permaculture can displace humans from the centre of power by encouraging gardeners to let nonhumans express their needs. In this ontologically flat ethics humans are not benevolent caregivers but engaged in mutual care with all beings, neither altruistic nor selfish because individuals only thrive within a healthy community of interdependent beings (De la Bellacasa, 2010). This is apparent in how at Garden 3 native flowers were left to self-seed without human caregivers determining their needs. Volunteers wanted this garden to “develop by itself” and

believed it will “sort itself out” because “nature knows best”. Flowers were free to go where they will, humans did not control others with distinct needs and modes of being. Hall cites such non-instrumental relationships with plants as essential for restoring environments damaged through human disrespect (2011). At Garden 3 it was not only humans who determined events, power was shared with nonhumans which elsewhere received care on a gardener’s terms.⁴ Hall sees giving plants space to thrive in their own ways as true care for them.

In permaculture gardens nonhumans do not always serve human needs, people reflect on distinctions between paternalistic care for dependent nonhumans and more egalitarian care relations driven by recognition of interdependence. Not everyone involved in community gardening celebrates interdependence, hence two relationship typologies. The most transformative power of community gardens might be their potential to teach permaculture philosophy and practice to enforce a relational understanding of self and community as foundation for egalitarian care for diverse others. As a ‘world view’ permaculture offers a spatially extensive care ethic, affecting attitudes and behaviour beyond the garden. It is significant that people at Garden 3 did not acquire this perspective through gardening practice, but came with prior commitment to it. Some gained insight to permaculture through involvement in the garden but it is not clear that encounters with nonhumans contributed more than reading, discussion and questioning during contact with other humans. These gardeners enacted ethical concern reaching beyond those they encountered directly by reflecting on relationships with nonhumans in general, not just in the garden. People considered needs other than their own, and sometimes enacted care driven by a will for nonhumans to determine their own lives.

Conclusion: connecting to and disconnecting from nonhumans

This paper challenges the proposition that people are encouraged to care more for nonhumans by connecting with them through direct encounters. To say gardeners ‘reconnect with nature’ glosses a variety of relationships with nonhumans on a spectrum from killing to tending as demonstrated by the typology proposed here. Although gardening might result in people relating more with nonhumans this does not equate ethical concern which is determined not by quantities but qualities of relating. To understand the ethical dividends of encountering nonhumans we should

consider not just increased contact but the kinds of relationships formed: how caring, how deep, how respectful, how extensive. Drawing parallels with everyday relations between humans – enemy, stranger, friend – I categorise relationships with nonhumans, and highlight the importance of attending to varied qualities of relating. This typology might be used to think through other more-than-human communities. To interrogate ethical dimensions of relationships it should be accompanied by questioning what motivates care for another, and whether tending prioritises human goals. Asking whose needs are met, and who has power to decide this distinguishes caring acts directed towards instrumental goals which perpetuate subordination of nonhumans, and situates specific encounters amongst wider multi-species power relations.

The empirical research demonstrates that practices and places which foster encounters with nonhumans do not necessarily promote ethical regard for them. It does reveal one significant feature of community gardening as ethical educator: opportunities to mix with people driven by concern for nonhuman others who share insight into why and how to care, and into the importance of non-instrumental relationships with nonhumans. This neglected dividend has practical implications for environmental education, suggesting bodily knowledge gained through encounters with nonhumans may not be as significant as moral instruction exchanged between people.

We have seen evidence of multi-species care in garden encounters, and that people can encourage each other to care more about and for nonhumans. But care based on connecting through embodied, personal engagements – tending a plant, enjoying being near a frog - can remain a very individualistic form of concern, neglecting those remote in kind or space. To foster ecological citizenship, engagement with nonhumans must consider others beyond those directly encountered; treating creatures responsibly requires humans to recognize how other lives are caught up with ours even when invisible to or removed from us (Collard, 2012). An ethical sensibility centred on affective, embodied relations will only extend beyond personal networks through reflexive awareness of how all lives are interdependent (Popke, 2006), how relations of care are entangled with power relations (V. Lawson, 2007; Tronto, 1995). Whilst care can be fostered through individual encounters, this must be supplemented by a collective perspective considering how a single act or

relationship relates to the big picture of human-nonhuman relations including their history of neglect. Closeness developed through personal relations should be accompanied by distance gained through reflexive recognition of humans' capacity to act without the best interests of others (Murdoch, 2006). Hence, caring for nonhumans requires humans to both connect with and disconnect from them. Encouraging gardeners to carry a care-full disposition beyond the garden requires them to reflect on how a garden is connected to other places, and how species everywhere are inter-connected. This has to include understanding how relations with nonhumans too often serve human needs, and of contrasts between care founded on dependence and that recognising interdependence so sharing power with nonhumans. It is not clear that this collective perspective is realised by individuals connecting with specific nonhumans when gardening, because responsibility for those far away is not always readily apparent and awareness of the cumulative repercussions of encounters is not a pre-requisite for success.

Power dynamics within a caring community centre on whose needs are served (Tronto, 1995), with care-giver often the one determining how care-recipient's needs are defined (Fisher & Tronto, 1990 p.45). Gardeners' care for nonhumans often equates relationships driven by human priorities, so humans decide where on the typology a relationship is situated. This need not be problematic were gardens the only place nonhumans are subjugated, but the extent of human domination places an onus on humans to reflect on their unique potential to harm others. Being close benefits nonhumans if it leads someone to relate to them as interdependents exchanging care without controlling mutually beneficial relationships. But distance is required so humans recognise their tendency to exert power. Tending in gardens is often driven by human needs and such instrumental relationships with plants wrought ecological destruction that can only be countered by allowing them autonomous space to flourish (Hall, 2011). This happens in gardens allowing room for non-productive species struggling elsewhere; caring without exercising power means leaving flowers to self-seed. But ecological recovery requires more extensive spaces free from human control where relationships are not always on a spectrum culminating in dependence, and the quality of relating is not necessarily determined by humans.

Cultivating care for nonhumans which accommodates their needs as well as those of humans rests on two lessons. Firstly, recognising how beings close by are connected to those elsewhere because all lives are interdependent, so actions here affect those elsewhere. Acting with this in mind can exercise care across distance and differences, making a more extensive ethical community. Secondly, understanding that the extent of human domination of nonhumans and the powerful position humans retain requires redress through relationships in which care is not given in expectation of return. Reversing, even halting, the legacy of neglect-full relations with nonhumans means allowing them to flourish beyond human interference and needs. More important than encounters teaching people to care for specific nonhumans are those which promote understanding of the interdependent nature of more-than-human communities, and which stimulate reflection on the devastating results of a human tendency to forget this.

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Figure 1

<i>Relationship type</i>	<i>Typical engagement</i>	<i>Indications</i>	<i>Nonhuman example</i>
ENEMY	disgust, fear	avoiding, criticising	killing slugs
STRANGER	suspicion, neglect	can't identify, not named	"I don't know which are weeds"
KNOWN OTHER	acknowledge, observe	make eye contact, refer to as 'them'	"look at those flowers"
NEIGHBOUR	recognise	talk to, call by name	"look there's a poppy"
COMPANION	enjoy, seek out	touch, relax, celebrate	"I'm holding this frog"
COMMUNITY MEMBER	co-operate	exchange gifts, refer to as 'us'	planting for bees
DEPENDENT	care for	understand needs	tending bean crops

Qualities of relationships with nonhumans: A typology

Relationships exhibit various qualities of engagement as indicated by sensory experience and talk. These have varying intensities with deeper engagement developing through familiarity and understanding; boundaries between categories are not rigid. Categories of inter-human relationships are familiar; similar variation applies to relationships with nonhumans. To many community gardeners, relationships towards the bottom of the spectrum represent care for

others, constituting community. The motives behind care for another are significant: care for instrumental purposes (e.g. tending crops) serves powerful human rather than subordinate nonhuman dependent.

Figure 2

<i>Relationship type</i>	<i>Typical engagement</i>	<i>Indications</i>	<i>Nonhuman example</i>
INTER-DEPENDENT	reciprocity, mutual care	allow space, cede control	“those wildflowers have been left to self-seed”

Dependence or interdependence

Community gardeners articulated different views of how humans should relate to nonhumans. This suggests a need for two categories of relationship at the bottom of the typology. ‘Care for’ founded on nonhuman dependence allows humans to retain control, serving instrumental goals selected by humans. Interdependence suggests a non-hierarchical relationship in which others determine their own needs. Relationships of interdependence typify an ecological outlook recognising mutual benefits for humans and nonhumans.

Notes

1 I employ a broad definition of community gardeners in line with that used by practitioners (e.g. American Community Garden Association). They are places where a group of people grow plants together.

2 Ethnographic fieldwork (2011-2013) entailed regular participant observation plus semi-structured interviews with 32 staff, volunteers, and stakeholders. Interview transcripts and fieldnotes were analysed thematically using NVIVO software; analysis considered similarities and differences between the gardens, and between participants across the sites.

3 Permaculture is a philosophy for environmentally sustainable design strongly associated with gardening which promotes self-sufficient systems which maintain an ecosystem’s interdependent relationships (Holmgren 2002).

4 That is not to say that nonhumans are never killed; death is perhaps unavoidable when species interact (Head, Atchison & Phillips, 2015; van Dooren, 2014).