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Relating to nature, food and community in community gardens

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Abstract

This paper sheds critical light on the motivations and practices of community gardeners in relatively affluent neighbourhoods. The paper engages with community garden, alternative food and domestic garden literatures, to understand how people fit food production into their everyday lives, how they develop relationships to plants and how these in turn shape relations between people in a community group. The paper draws on participant observation and semi-structured walking interviews conducted at three community gardens in Sydney, Australia. The paper concludes that to fit community gardening into busy lives, people strategically choose plants with biophysical qualities that suit personal as well as communal circumstances and objectives. The paper shows how community is relationally constituted through the practices of growing and sharing food. Tensions might arise through the practices of growing food on communal and private plots and the taking and giving of food, but it can also encourage people to reflect on community food production and on their roles as individuals in a community group.

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Abstract

This paper sheds critical light on the motivations and practices of community gardeners in relatively affluent neighbourhoods. The paper engages with community garden, alternative food and domestic garden literatures, to understand how people fit food production into their everyday lives, how they develop relationships to plants and how these in turn shape relations between people in a community group. The paper draws on participant observation and semi-structured walking interviews conducted at three community gardens in Sydney, Australia. The paper concludes that to fit community gardening into busy lives, people strategically choose plants with biophysical qualities that suit personal as well as communal circumstances and objectives. The paper shows how community is relationally constituted through the practices of growing and sharing food. Tensions might arise through the practices of growing food on communal and private plots and the taking and giving of food, but it can also encourage people to reflect on community food production and on their roles as individuals in a community group.

Key words: Community gardens, food production, sharing, human–plant relations, relationality

1. Introduction

The current popularity of community gardens is encouraged by promises of potential benefits, most prominently the generation of sense of community, social capital, environmental education, and access to affordable healthy food. These promises are grounded in community garden research that is focused on the community gardens of working class or marginalised communities (for an overview see Guitart et al., 2012). However, gardening motivations, objectives and resources differ between groups in different socio-economic

circumstances (Clarke and Jenerette, 2015). Whereas economically marginalised gardeners might garden to supplement household budgets, middle class gardeners are more likely to seek a leisurely reconnection to nature and food sources (McClintock, 2010). A substantial number of community gardens is situated in wealthier or gentrifying parts of cities (Irazábal and Punja, 2009; Mintz and McManus, 2016), for example because residents of those areas have resources such as time and negotiation skills available to realise community gardens. Because of this, it is important to know how these community gardeners enact relationships to community and food.

This paper aims to contribute to the existing literature on community gardens by offering an analysis of intersections between highly educated, inner-city community gardeners' ideas of nature, and their food production and community building practices in a gentrifying area of Sydney, Australia. I develop this contribution focusing on these gardeners' relationships to plants, food and each other. The research shows that gardening and community building practices intersect in ways that facilitate gardeners' personal and community agendas, and that they allow reflection on dominant food systems and on the position of individual gardeners in a group. The paper highlights the potential of gardening and interactions over food to generate community belonging as well as social tensions.

The paper is organised into five sections. First, I discuss literatures on community gardening, alternative food and on human-plant relationships in gardens. Second, I discuss methods and introduce the case studies. Third, I present the results in the form of three themes; valuing community gardens, strategies for food production in community gardens; and relationships to plants and food in community gardens. In these themes I highlight tensions between people's personal objectives and community building goals. I end with concluding remarks regarding the potential merits and limitations of recreational community gardens as spaces for food production and community building.

2. Middle class community gardening

Originating in activist movements protecting community gardens from development (e.g. Schmelzkopf, 1995; 2002), community garden scholarship has focused on community gardens of working class and minority communities, and on the potential these spaces offer for the creation of social capital, community cohesion and political resistance (Irazábal and Punja, 2009; Milbourne, 2012). Contributors to this literature aim to grasp the problematic position of community gardens in bureaucratic landscapes and the inequalities and resilience that can be created and exacerbated as community gardeners are forced to engage with planning departments and funding bodies (Smith and Kurtz, 2003; Irazábal and Punja, 2009; Eizenberg 2012). Where food has been a topic of interests in community garden research, scholars mostly focus on poverty alleviation, health benefits and on the value of community gardens as spaces that facilitate the production and consumption of food crops from migrants' countries of origin (Saldivar-Tanaka and Krasny, 2004; Baker, 2013).

Consequently, scholars have not prioritised the study of community gardens in more privileged urban areas, the motivations of these gardeners, and the ways in which they enact relationships to food in these spaces. This is an important shortcoming because community gardens are becoming increasingly common and popular with middle class urbanites who garden not out of necessity but leisure. The limited research on middle class or gentrifying community gardeners suggests that their motivations, resources and practices differ from those of disenfranchised communities (Turner, 2011; Eizenberg, 2012; Aptekar, 2015). For example, middle class gardeners are more likely to have skills to communicate with government institutions (Eizenberg, 2012), and they have more income available to invest into plants and garden resources (Clarke and Jenerette, 2015). Scholars also suggest that these gardeners are more likely to produce food out of a desire to 'reconnect to nature', to 'learn

where food comes from' (McClintock, 2010; Turner, 2011) and out of consumer anxieties over pesticide use and preference for local food (Evers and Hodgson, 2011; Turner, 2011).

The distinct objectives of middle class community gardeners are also likely to result in different framings of collectivism and individualism (Jamison, 1985). In poor communities gardens are promoted as examples of self-help and community resilience, whereas affluent gardeners are likely to seek a sense of independence or self-reliance (Turner, 2011; Larder et al., 2014). Working in suburban Australia, Turner (2011) found that when collectivism is a goal in community gardens this is a secondary motivation framed as community building. Recent studies also indicate that conflicting ideas about 'community' in a gentrification context translate into the decision making and design processes of community gardens (Aptekar, 2015).

Despite the emerging insight that community gardens comprise of intersecting individual and collective goals (also see Van Holstein, 2016), community gardens and other urban food production initiatives continue to be celebrated for their collectivist character and transgressive potential (Tornaghi, 2015). Similarly, scholars highlight the potential of community gardens as spaces in which food is decommodified (McClintock, 2010; Barthel et al. 2015) even as it becomes increasingly apparent that many community gardeners are not gardening for subsistence or large yields. Tendencies in the literature to emphasise the transgressive potential of community gardens illustrates a research field that is informed by garden projects in which community food production is an economic and community benefit of some urgency. This is not a fitting starting point to study the food production practices of community gardeners who increasingly garden for recreational purposes. A lack of empirical work on the community gardens of middle class urbanites means that little is known about the ways in which collectivist and individual objectives regarding food production intersect in

these gardens, or how gardeners' desires to reconnect to nature and food are enacted in a landscape that is shaped both by community objectives and individual interests.

3.Reconnecting to food and nature through community gardening

Literature on Urban Agriculture and Alternative Food Networks has paid more attention to the motivations of privileged income groups to engage with different sources of food. This literature offers a framework for thinking about the ways in which community gardeners choose to engage with food in these spaces. This is important because home and community gardeners in Australia are motivated by desires for 'natural' food and they are committed to sustainable food sources expressed in terms of localism and food miles (Evers and Hodgson 2011; Turner, 2011; Larder et al. 2014); all of which are critiqued in the alternative food literature as obscuring inequalities and deepening class privilege (Alkon, 2013; Maye and Kiwan, 2010).

Researchers aims to unpack the discourses and practices through which local organic food is being pitched as 'natural' and 'good' against industrial food which is framed as unnatural and immoral (Guthman, 2004; Alkon, 2013). Scholars recognise that these constructs increasingly steer the consumption choices of elite income groups and that these understandings and consumption practices potentially deepen inequalities (Guthman, 2008; Goodman and Goodman, 2009; Maye and Kiwan, 2010; Goodman, 2015). Similarly, urban gardens are too often celebrated for their 'naturalness' without acknowledgement of the socio-natural interactions that constitute them (Lawson, 2005; Kingsley and Townsend, 2006; Classens, 2014). To sidestep uncritical constructions of 'naturalness', scholars increasingly adopt relational approaches to food and foodscapes and aim for deeper understandings of the social and natural processes that shape understandings and relations to food and gardens (Alkon, 2013; Goodman, 2015)

Relational approaches to food highlight that food is produced through biological as well as socio-economic processes, and that together these processes shape inequalities and power dynamics in foodscapes (see Goodman, 2015). Both scholars and food activists recognise the co-production of food in that growing food requires ecological systems comprising non-human species, soil and water, but also human labour and value systems that put those systems to work to sustain human bodies (Alkon, 2013). Although this recognition is an important starting point for imagining food systems that are environmentally and socially sound, current discourses around co-production are partial and shaped by privilege (Guthman, 2004; Alkon, 2013). For example, even though it is clear that urban gardens are shaped by social and aesthetic norms in ways that reproduce class relationships and limit people's access to spaces for food production (Domene and Saurí, 2007; Naylor, 2012; Aptekar, 2015), urban gardens continue to be praised for their naturalness and the re-connection to nature they supposedly facilitate.

The idea of 're-connection' is problematic because it implies that nature and society are separate (Classens, 2014; Cooke et al., 2016). Scholars in community garden research are working past this paradox with a focus on people's embodied experiences and practices in gardens (Turner, 2011; Cameron et al., 2011). They suggest that community gardens have the potential to facilitate an embodied reconnection to food that encourages a reconsideration of food systems and open the way to more sustainable ways of urban living (Turner, 2011; Tornaghi, 2015). The focus on the bodies and practices of community gardeners has thus far been employed to explore sensory experiences of soil and water (Turner, 2011). It has not focused on relationships to plants. This is surprising because plants are a great focus and source of pleasure for gardeners (Hitchings, 2003), and they are what ultimately becomes food in community gardens. Human-plant relationships also provide an interesting lens to study urban community gardens because as Classens (2014: 236) asserts 'the biophysical

growing capacities of plants’ as well as ‘broader political ecological and political economic processes’ structure human and non-human relationships in particular ways and these might all contribute to the benefits and challenges of urban gardens.

This paper expands the burgeoning literature on socio-natures in food production spaces by focusing on community gardeners’ relationships to the plants they cultivate. Geographical literature on domestic gardening (Hitchings, 2003; Power, 2005), weed management (Head et al., 2014) and agricultural cultivation (Brice, 2014) focusing on human - plant relationships has revealed the socio-natural constellations that emerge through collaborative processes of both human and non-human agency. This body of work shows that the perceptions and practices of gardeners are complex, and that they include various non-human collaborators and antagonists such as weather conditions, insects, soil, snails and so forth (also see Ginn, 2014). Scholars particularly draw attention to the ways in which people and plants enrol each other into seasonal and daily temporalities and routines (Head et al., 2012; Brice, 2014). Gardeners choose plants based on their physiological growing characteristics such as their aesthetic qualities or the promise of low maintenance (Hitchings, 2003; 2007).

Relationships between people and plants are under-studied in the context of community gardens and this impedes a full understanding of how food is valued and shared in these gardens. For example, the community garden literature suggests that people gain a sense of accomplishment or independence from growing certain plants and foods (Turner, 2011), and inquiries into human-plant relationships teach us that mutual cultivation fosters attachments between people and plants (Power, 2005; Freeman et al., 2012). Yet, we know little about how these relationships work out in a recreational community setting that consists of collective and individual objectives. For a fuller and more critical understanding of community gardens as spaces in which people aim to connect to nature and engage with food,

a study of relationships to plants is a useful starting point. This is why in the remainder of this paper I unravel how people incorporate community gardens and plants into their daily lives, how people relate to plants and food, and how these relationships affect community interactions.

4. Study area and methods

The study area for this research is located in the neighbourhoods Newtown and Erskineville, on the fringe of the Sydney CBD, Australia. These neighbourhoods were selected because the area has undergone gentrification in recent decades. The area is characterised by strongly increasing residential property values and a changing demographic profile (Atkinson et al., 2011). For example, the Australian Bureau of Statistics' data indicates that, in Erskineville 49% of residents over 15 year old held a Bachelor or postgraduate degree in 2011 against 38.5% in 2006, and in Newtown this percentage was 45.8% in 2011 against 37.7% in 2006 (Community profile City of Sydney, 2016; Community profile Inner West Council, 2016). With these numbers reaching 24.1% in 2011 against 20% in 2006 in the Greater Sydney area, Newtown and Erskineville are neighbourhoods with relatively high and growing potential incomes.

Community gardens are a popular phenomenon in this area. The council area City of Sydney alone, which includes Erskineville and a part of Newtown, accommodates 23 formally recognised community gardens (City of Sydney, 2016). Councils provide ample information on their websites to support residents wanting to join, start, or fund a community garden, stating that these projects help reduce household waste, provide opportunity to produce food, and bring people together.

Three community gardens were selected from this area. The first was selected based on the controversy surrounding its existence on a plot destined for housing development. Two

additional gardens were selected after having been mentioned by interviewees as having different management models and being desirable or undesirable for that reason. See table 1 for an overview of descriptive facts on the three gardens. Gardens are identified by pseudonyms.

[insert table 1]

Stanley Road Garden: This garden was established as a guerrilla garden, meaning the garden was planted on unused land without permission of Council; the owner of the land. In addition to the aim to block housing development, gardeners mention local food production as an important reason to garden here, but the quantity and the kinds of food that are produced vary. Abundant crops are the kinds of plants that self-seed and that spread themselves around the garden, such as mint and parsley. Gardeners predominantly garden on private plots and also harvest plants that self-sow outside plot boundaries. There are communal plots but these are not signposted. There are no committees or meetings. The protagonist of the garden allocates plots, organises resources and takes care of communication and decision making. The protagonist also points out the communal plots to new members. Few gardeners recall this information and garden exclusively on their own plots. I participated in one working bee at this garden, because additional ones went unattended by members. I interviewed eight people here.

Park Street Garden: This is a communal garden in which gardeners are not allowed to construct individual plots. At Park Street, some gardeners are enthusiastic food growers and others focus on managing the quality of the soil, recycling and composting. The garden has a shared vegetable patch and a forest area with fruit trees. However, the amount of food grown at this garden is limited. Chores are not collectively thought out or communicated and this

limits people's ability to identify tasks. Food production is also challenged by gardeners who see this as self-gain and who prioritise recycling and composting as the key garden objectives. Rules and expectations on how to participate in the project emerge indirectly from the gardening practices in and outside of communal gardening hours. Responsibility to lead working bees is rotated between five members to ensure the garden opens to the public every Sunday. Public hours ensure that gardeners meet and negotiate conflicting objectives. When necessary meetings are organised to resolve conflict. I conducted eight interviews, participated in six working bees and attended one meeting at this garden.

Highfield Garden: This garden consists of a mix of private plots and communal areas. At Highfield Garden, gardeners pay an annual membership fee of forty Australian dollars, which grants them access to fruit trees and crops such as lemongrass that are grown communally. Other food is grown on individual plots for which gardeners pay an additional eighty Australian dollars rent annually. Plots are allocated according to a waiting list and new members are asked to comply with the group's written guidelines. Working bees are organised monthly during which gardeners mostly work on tasks that benefit the group at large. Working bees are well attended and include a social break for tea. Decision making outside of working bees falls to a committee of elected members. The committee also organises a yearly meeting in which all members can participate. I interviewed nine gardeners, participated in three working bees and also attended one general meeting and an annual open day here.

Fieldwork took place from March 2014 to May 2015 and comprised participant observation at each of the three gardens, and twenty-five semi-structured interviews. Participants were recruited at working bees and through a garden membership email list. I interviewed everyone who came forward. The resulting sample of participants reflected the highly educated and gentrifying demographic of the area. It consisted of fourteen owner-

occupiers and seven tenants who rent their dwelling. The sample of participants included sixteen people with university degrees, four with a college diploma and one with a high school diploma. Fifteen participants identified as Australian, four as North-West European, one as New Zealander and one as North-East Asian. Four participants did not share demographic information.

Gardeners participated in walking interviews, fifteen of which started at the participant's home garden to be continued on the way to and through the community garden. The other interviews took place walking in the community garden. These walks encouraged reflection on how gardeners fit communal gardening into a personal routine (see Van Holstein, 2016 for an analysis of relationships between home and community gardens). Walking allowed me as an outsider insight into participants' lived experiences of the community garden (Kusenbach, 2003). Interviews were informed by working bee observations and initially focused on broad themes, such as motivations to be involved, what people value about the garden and people's opinions on the organisational model and decision making processes. Halfway through fieldwork interview questions were evaluated and framed more explicitly around themes such as food production to further explore patterns that were emerging in the data.

Interviews were recorded and transcribed, and field observations were annotated. Gardeners' names were replaced with pseudonyms. Both sets of empirical data were coded thematically using MAXQDA11 software for qualitative data analysis. Coding first revealed broad themes such as 'food', 'routine' and 'plants'. The interpretation of analyses was made available to participants for feedback. I now focus on three main patterns that emerged while analysing relationships between themes: valuing community gardens; growing food in community gardens; and relationships to plants and food. I use these patterns to reflect on

how gardeners relate to plants and how these relationships shape community interactions such as the taking and gifting of food.

4. Results and discussion

4.1 Valuing community gardens

Motivations of gardeners in this study reflected those suggested in the literature (McClintock, 2010; Turner, 2011). Out of twenty-five interviewees, ten mentioned community as a motivation to be involved, fifteen mentioned food production and eleven alluded to the value of their community garden as a green or natural space as a motivation to be involved. These three key motivations were expressed evenly across the three case studies, however, within those broad motivations individual gardeners' points of view differed.

Gardeners have different reasons for wanting to produce food and understood nature differently. For example, gardeners who value a community garden as natural or green space, described their garden project as a haven or sanctuary:

We always like nature you know growing a bit of vegies, stuff like that. So this is a really good spot. Only five minutes' walk and then you can find this piece of paradise.
(Matt, Park Street)

And at Stanley Road, Henry calls the garden 'breathing space for a city village'. These perspectives reflect the suggestion in the urban garden literature that gardens offer retreat from urban stressors (Bhatti and Church, 2004) and that people seek to reconnect to nature in urban gardens (McClintock, 2010). It also illustrates the paradox that in seeking reconnection people emphasise a fictitious separation of natural and social spheres (Classens, 2014; Cooke et al., 2016).

When discussing growing food, gardeners acknowledge the social and natural processes that shape the garden. A garden is then valued as a natural space, but also a space of productivity and cultivation. At Highfield, Lucas who joined a year after the garden was planted says:

From what was here before, which was like an overgrown empty space from what I understand, I think it's a much more attractive thing to have in the neighbourhood than an overgrown empty space. And you know if people, [...] come and do your gardening and ah grow stuff then it has a... then that is a value in itself. (Lucas, Highfield)

And talking about food waste, Nicole acknowledges the co-production of food saying:

Someone's growing that. I think more about the time the farmers or just the people have put into it more than whatever nature has contributed, but that's a factor as well. (Nicole, Highfield)

Gardeners' motivations to grow food or reconnect to food sources relate to ideas about food as nature. Interviewees mobilise alternative food discourses around 'natural food' as opposed to industrial food to explain their efforts and motivations. At Park Street, where crops are grown communally and gardeners abide by unwritten rules against planting in rows, Thomas explains:

There's some biomimicry in that garden. And like that's a good thing. The idea being that you sort of replicate, that occur in, sort of in nature. Like sort of seeds, direct sowing of seeds and not cultivating the soil and sowing neat rows and maximising space which is so prevalent in industrial agriculture. (Thomas, Park Street)

In line with their concerns for the environment, gardeners at this garden approach the project as an ecosystem in which food production is a small part of a cycle. This perspective aligns with the communal model of the garden. In the other two gardens, gardeners focus on attaining natural food based on goals that can largely be accomplished on individual plots,

such as the local production and cleanliness of food. At Stanley Road Alice explains why she got involved in the project:

My hope is to be around people that also like, believe in more local food, grow your own food and using unused spaces. I just feel like it is so important because, I don't know, [it] just is. It is space and we're so disconnected from our food. So the more we're planting and caring for the earth I think the better in general. (Alice, Stanley Road)

This quote illustrates how a community gardener in this study connects ideas about local food to personal connections to food and to concerns about the local and global environment. The preference for local food is also based in a desire for the security of knowing that food is organic and that, as Sarah says at Highfield, it 'hasn't been in cold storage for a year'.

Local food and connections to food sources are also valued because this food is deemed fresher, cleaner and thus healthier. There is unanimous agreement across the three case studies, whether this is formally written down in the garden rules as at Highfield or enforced in situ as at Park Street, that pesticides are not to be used in the gardens. This aligns with the health and environmental concerns of gardeners with food that has been chemically treated:

I like the idea of food that hasn't got chemicals on it; that's fresh. Cause it's harder and harder to get. I guess. And it's expensive too. I guess you know that's the other thing, I mean obviously this isn't impacting at the moment on saving money or anything but I guess if you were really involved you could then save a little bit of money as well. (Zoe, Highfield)

This quote also indicates that when these gardeners are motivated by an economic incentive, this is grounded not in necessity, but in a sense of unfairness towards (organic) food prices.

These insights from the research indicate that the finding that Australians no longer garden at

home for subsistence but to satisfy a middle class desire for clean and fresh fruit (Gaynor, 2006), also rings true in community gardens.

A small number of gardeners indicate that their motivations to grow food are intended as an act of resistance or protest against conventional food distribution and pricing regimes, particularly supermarkets. Their motivation is to articulate some independence from those regimes by growing small quantities of food themselves. At Highfield, Sarah for example says:

They [supermarkets Coles and Woolworths] keep taking things from their stock only to leave their own brands on sale and I thought that is just not right. (Sarah, Highfield)

As a response she has not bought anything from Australia's two largest supermarkets for the last 18 months and is determined to buy and grow food locally as much as she can.

Gardeners also express concern for the distance over which food is transported, the way food is packaged and the high prices that supermarkets charge for some products. At Park Street Charles explains why he gardens at the community garden:

I like the time and space down here but it's an economic and a political decision not a relaxation one or an enjoyment one. First and foremost it's about growing food and learning to grow more food. Yeah it's about not paying for food. I hate paying for tomatoes at sometimes seven dollars a kilo and rocket is twenty bucks a kilo when it can grow here. And those skills of being able to grow your own food I think are important. As well as actually doing some of it. I'm not organised or have enough time to do much here. But what I do I think still counts for something. The effort I put into it is worth it, not just in terms of enjoyment or participation in a community project, it's worth it in terms of the food I take home. (Charles, Park Street)

The desire of community gardeners to feel connected to food sources and to enact resistance to dominant stakeholders in conventional food systems stands in stark contrast with how the

gardeners actually use the space. As illustrated by Charles' quote above, however motivated gardeners are to grow food, they also have other demands on their time. This forces gardeners to be strategic about how they fit the community project into their everyday rhythm. This is the topic to which I turn in the next section.

4.2 Growing food in community gardens

Many gardeners in the study are involved in their community garden because they want to grow food. For some of them, growing food is a political act and an expression of discontent with current food supply and market logics, for some it constitutes an enjoyable way to spend time and an opportunity to connect to people in the neighbourhood. However, gardeners have limited time and space. Even though gardeners throughout the study hint at a rhetorical possibility of saving money if they had more time, interviewees acknowledge that this would require more time than they are willing or able to invest. Daisy chuckles when she says:

I always laugh when people talk about growing food as a way of saving money on vegetables, because that is just... it costs more to grow food than to buy food. You know because it's just much more labour intensive to grow organic vegetables than, you can buy tomatoes for three dollars a kilo in summer. And grow, I couldn't grow them for three dollars a kilo. But for me it's not about saving money, it's about the quality of the produce and also the leisure experience of growing food for me is just a really pleasurable part of my life. So. It's not an economic thing at all. (Daisy, Highfield)

To Daisy, community gardening is a hobby, which costs rather than saves money. When gardeners realise that they have less time than is necessary to attain large goals, they adjust their gardening practices to fit gardening into their everyday routines. Claire for instance indicates that she does not have enough time to produce a large quantity of food and that this is why she focuses on plants that do well in the Sydney climate:

I think you have to be quite involved to get huge yields and I don't know enough about gardening to do that. So I put kind of different things in and lots of things don't survive. So the things that survive I tend to work on because I figure they must be hardy and work in this environment. (Claire, Stanley Road)

Because gardeners are constrained by resources such as time and skills, they choose what to grow based on those limitations and their personal reasons for being involved in the garden. People grow things that can survive without frequent watering. The result is that gardeners give free reign to plants such as parsley and mint because those grow in abundance with little maintenance. Steve connects the communal organisation of the Park Street garden to the kind of work it requires and the quantity of food that is produced:

there's not a structured, systematic vegie garden where things really need to be tended for [...]. If you had a garden like that you would need to be quite organised and structured in terms of who's doing what [...]. I mean when you just have parsley lying rampant, it doesn't really matter does it? (Steve, Park Street)

Steve appreciates the unstructured, ad hoc organisation of this garden, but he also laments that it produces more herbs than food. The growing qualities of herbs however lend themselves to gardeners with irregular timetables. They self-sow which makes the garden sustain itself regardless of how much time gardeners have. Because self-sowing plants such as herbs require little watering, pruning and other intensive gardening practices, they allow gardeners to come into the garden as often as is convenient to them. The biophysical growing capacities of these plants allow gardeners to remain involved in food production in the community project in a way that suits personal circumstances. The way gardeners manage their involvement in the garden confirms Hitchings' (2003) and Power's (2005) observation that gardeners and plants shape each other's involvement and performances and that plants use their qualities, such as aesthetics and promises of low-maintenance, to remain part of the

garden performance. These scholars also point out that different qualities and aesthetic sensibilities of plants shape different attachments of people to their plants. Gardeners value self-sowing plants and plants that require sowing and watering differently. Stephanie explains this difference when she talks about a special relationship she has with the cabbage plant in her plot. She took the plant home when it needed nurturing after a hot, dry period in the garden and she sees this plant as different from the plants that self-sow. When a plant self-sows this communicates to Stephanie that:

the plant doesn't need too much care. So if I plant it in my plot I'm not going to need to care for it too much, because it self-sows. But as for the cabbage over there, haha, poor thing is not going to self-sow and spring up everywhere. It's gonna keep growing on the one stock. (Stephanie, Stanley Road)

Besides a general preference for low maintenance, gardeners also choose plants that offer them a sense of excitement, wonderment or accomplishment such as Stephanie's cabbage. Plants can be special to gardeners for various reasons, for example because they are expensive in shops and therefor seen as a treat, or because they are challenging or interesting to grow. Ivy who gardens with her children at Highfield explains this saying:

What I try to do in the garden is I try to grow things that are more expensive to buy in the supermarkets. So I wouldn't grow potatoes for example because they are so cheap. I probably wouldn't grow carrots because they are really cheap too, except that [my son] really loves growing carrots so I just do that for him because he really likes it. But things like the herbs are more expensive, and strawberries you know, sort of special things that are like more of a treat. (Ivy, Highfield)

Although saving money is not a motivation for Ivy to be involved in the community garden, she chooses crops based on supermarket prices and their associated desirability as a treat, which generate pleasure in growing them. Her statement also shows that gardeners choose to

plant crops that they enjoy because it excites their children or because they have never grown that particular crop before. When people decide to cultivate a particular crop and nurture particular plants, such as Ivy and her son do with the carrots and Stephanie does with her cabbage, this creates a distinct relationship to those plants.

Relationships to plants that emerge as gardeners take care of them and learn how they grow arguably are the very reconnections to food that gardeners seek to experience in these kinds of community gardening projects. Experiences of learning and reconnection are illustrated by gardeners at Park Street who talk excitedly about greens such as dandelion leaves that they learned to eat at the garden and that they would not have considered eating before, and by gardeners who speak enthusiastically about the growing processes of plants formerly unknown to them. For example, Stephanie has started planting her leftover potatoes and shares her amazement with how they reproduce:

Have you seen what a potato looks like? When they're growing? Underground? Have you seen what they look like? Round potato. They have the baby potatoes growing. They look so cute. (Stephanie, Stanley Road)

And at Highfield Nicole enjoys seeing and showing her children how vegetables grow:

I for example didn't know that Brussel sprouts grew on, did you, have you seen that? [...] when I first started coming to the garden I was, I had regular moments like that. Like oh my god, look at those, and what is that and what is that? So like artichoke plants, just huge and amazing, and Brussel sprouts, who knew they grew like that? All around the outside. Incredible. (Nicole, Highfield)

This sense of excitement goes back to people's desire to know where food comes from and this desire is satisfied regardless of the size of yields.

In line with the objective to learn about food, gardeners at Highfield continuously try to grow new crops each time they re-plant their plot. This while the communal areas of this

garden accommodate plants such as citrus trees and lemon grass that take longer to bear fruit. This way different areas of these gardens accommodate plants that meet gardeners' different objectives. These places and functions of plants also shape different relationships. Because self-sowing plants do not require great efforts, gardeners are less likely to attach to these plants and because they also defy plot boundaries, they are more easily taken and freely shared. I now turn to the gardeners' relationship to plants and how these intersect with community dynamics.

4.3 Relationships to plants and food

Although gardeners say they value the community aspect of the garden project either as a key motivation or as an additional benefit, gardeners also value the personal sense of satisfaction and accomplishment related to growing their own food:

There's the satisfaction of knowing that you grew it yourself. [...] Even though, I mean quite frankly, you put something in the ground and three months later something is there and you might not have contributed too much skill. But it's the fact that it's your garden, you grew it, you ate it, you prepared it, [...] with your own hands, you planted it with your own hands, you watered it, you watched it grow. It's really satisfying.
(Dylan, Highfield)

The sense of personal accomplishment and satisfaction that Dylan expresses is directly related to practices of growing food autonomously. For Dylan, it is important that the plants grow in his garden and to know that he grew the plant himself without help or interference from others. Gardening, although practised in a community setting, is in this sense very much appreciated as working towards personal goals.

In the gardens with plots but also in the communal garden, people prefer not to interfere in other people's projects:

I try not to take from someone else's plot cause I don't even know very many of the people here. So I'll take whatever has come out or if they have a lot I'll take a little bit and I'll come and I'll water to try and pay back. (Stephanie, Stanley Road)

Gardeners recognise other gardeners' personal investments of effort and money into plots and this shapes how gardeners share garden space and plants. Hellen for example says:

It's not quite sharing. Hahaha. Sharing the space but not plants. Because everyone is paying for their own things too. So it makes sense. (Hellen, Stanley Road)

Plots and individual investments offer gardeners a sense of autonomy and this allows gardeners to engage in personal gardening projects and experiment with growing different plants. Through these practices gardeners strengthen personal relationships to plants, and this generates excitement but it also carries potential for conflict. A good example of this is Lucas' excitement about his pumpkins which he is growing for the first time. When I ask him whether he has been sharing food, he answers:

Well not deliberately. Someone stole my pumpkins over Christmas. Which I was pretty upset about, because they weren't even ripe. Maybe it was a misunderstanding or whatever, but yeah that upset me a bit. But and I, yeah got on Facebook and sort of said look please, whoever has been borrowing my pumpkins could you please not, because I've never grown pumpkins before and you know. I am very happy to share. Take as much chilli as you want or spinach or anything like that, but just because I've never grown pumpkins and you take at that stage they were my only two pumpkins. (Lucas, Highfield)

Although food growing and community engagement are strong motivations for the gardeners in this study, sharing becomes problematic when things are taken that are of special value to a gardener. This illustrates that it is important for sharing to be practised according to certain unwritten rules which might not be known to all because they depend on emergent and

changing relationships between gardeners and plants. Plants that self-sow and that grow in abundance are allowed to be taken but other plants have to be given away, because the effort and anticipation that goes into the garden makes the produce the gardener's to decide to give away. Lucas wrote on one of his pumpkins, 'don't take me ☺'.

Figure 1: Lucas' pumpkin

Lucas likes sharing food, but not his pumpkins because it is the first time he grows them. The first pumpkins are a symbol of his personal accomplishment and the pumpkins being taken rather than given away detracts from his sense of achievement and enthusiasm. This shows that social interactions over food are shaped by gardeners' feelings of achievement, their attachments to plants and the specific circumstances under which food is taken or given away.

Relationships to plants can lead to conflict between gardeners. Stephanie, who values the cabbage plant that she nurtured back to life differently from plants that self-sow and take care of themselves, recollects being upset about someone taking a cabbage from her home garden:

There was cabbages here that I talked about and I took them out because the snails kept eating them. I took them home. And that was another thing someone stole a whole cabbage. I don't even eat cabbage. I don't like cabbage. I just thought it was nice to bring a cabbage back to life. Because it was one of these ones, here, like this one here. It had shrivelled to the point where. The poor thing. (Stephanie, Stanley Road)

The caring for plants creates a relationship to plants that sits uneasily in the context of a community project in which people freely take things from plots. Gardeners are happy to share, but also become afraid of freeloaders. I observed this tendency at all three garden sites. At Stanley Road a gardener recently ceased to be a member because the disappearance of a plant was too upsetting to him. At Park Street the code to the numeric padlock is changed periodically to stop neighbours accessing the garden. According to Ben this is done out of fear that plants might be stolen. At Highfield Lucas' writing on the pumpkin expresses the anxiety of losing plants without consent. These practices illustrate a sense of nervousness and mistrust that is easily overlooked when researchers focus on the communitarian aspects of community gardens (Tornaghi, 2015).

Although relationships to plants can lead to group conflict, when food is understood as one gardener's personal achievement, being given a part of the produce can also create a sense of community belonging. Zoe expresses this at Highfield. Being included in the sharing of food makes her feel part of the community:

The other nice thing that has started happening and that I think is probably connected to having your own plot, is that when we were here the other day the working bee

people would come over and say 'oh have some of this' [...]. And another woman there said 'pick some of the lemons' and I guess that's another really nice social aspect that I do, sharing and, not so much bartering but you know like giving stuff and hopefully one day I'll be able to give something back. (Zoe, Highfield)

Zoe experiences the offering of food as a gesture of welcome and her quote illustrates that sharing is motivated by a 'desire for connection' and that it contributes to feelings of community, belonging and inclusion (Belk 2010, p. 716).

Similarly, although Lucas is concerned about the disappearance of his pumpkins, he also appreciates communal food production and sharing practices:

For example, I'm going to pick some kaffir lime leaves before we go, from the kaffir lime leaf tree, and if I had to buy them it would probably cost me three or four dollars to buy a packet of ten lime leaves. I only need three. And there's a whole tree down there that produces enough leaves to support everybody in the whole plot for nothing, for the cost of the plant when they put it in. So you know that's communal and very, it just seems smart to me to kind of be able to do that rather than that everybody goes down and buys a little tray wrapped in plastic with four leaves in it where we end up throwing away most of them. (Lucas, Highfield)

In this segment Lucas applauds sharing in the garden project because through the sharing of communally grown food the community challenges the power of supermarkets to determine how food is offered for consumption. The moments in the garden with gardeners such as Lucas show that they produce food for various reasons, that they have different relationships to different plants and that these relationships both complicate and enable the communal aspects of these projects.

Conclusion

The community garden research literature has prioritised the study of community gardens of marginalised and low-income communities (Schmelzkopf, 1995; Milbourne, 2012; Guitart et al., 2012) and has emphasised the benefits of community gardens based on these communities' necessities such as poverty alleviation, nutrition and community capacity building. This paper complements that literature by focusing on community gardens of relatively affluent residents in gentrifying neighbourhoods, because in cities such as Sydney, these community gardens are more common than those of the disenfranchised that feature prominently in the research literature (Mintz and McManus, 2014). Drawing on community (Cameron et al., 2011; Turner, 2011) and domestic garden literature (Hitchings, 2003; Power, 2005) and on relational developments in studies of urban gardens and alternative food (Alkon, 2013; Classens, 2014), this paper provides insight into the motivations and practices of gardeners who are involved in community gardens to feel connected to nature, learn how to grow food and be part of their neighbourhood community. The research presented here demonstrates how these motivations intersect in gardening practices in ways that provide potential for community building and political resistance. However the research also reveals tensions in community groups around food growing practices as rules change and emerge with the development of community and human-plant relationships.

The paper shows that although gardeners want to feel connected to nature, learn how to grow food and be part of a community group, gardeners prioritise these motivations differently. Gardeners have different reasons for wanting to grow food and make gardening choices based on these undergirding motivations. Because these community members do not garden out of necessity but out of leisure, they compromise their goals to fit gardening into personal routines. In order to do this, gardeners enrol plants into their gardening that suit personal goals such as enjoyment and resistance to the corporate foodscape.

In focusing on community gardeners' relationships to food and plants, this paper contributes insight to the literature into the desires of gardeners to know where food comes from or to feel connected to nature and food sources. Community gardens allow people to become aware of the efforts required for food production and of the biophysical characteristics of food crops. The gardens also provide an outlet for food waste and room for people to deny supermarkets the power to singlehandedly determine the offer and prices of food. Focusing on gardeners' relationships to plants and food also demonstrates that the balance between personal and communal interests in the projects can be fragile. Assumptions about the benefits of community gardens based on their understanding as communal (Tornaghi, 2015) or natural spaces (Classens, 2014) overlooks the personal stakes of individual gardeners and distinct relationships to plants that meet gardeners' different objectives. The deeper understanding of community gardens as spaces constituted of various socio-natural relationships opens up possibilities for recognising the conflicts and challenges involved in aligning personal and communal objectives.

The increasing popularity of community gardens with urban professionals and other middle class residents, attracts increasing funding and policy interest for these projects. Gardens such as these three in Sydney are encouraged and funded based on benefits such as environmental education, food production and community building. Where research has focused on policy, this paper offers a more nuanced understanding of middle class gardeners' practices and goals. This closer understanding reveals tensions between aims of gardeners to be in touch with food and community, and these need to be considered in debates about the potential merit and challenges of community gardens. They also allow for a more accurate consideration of the costs and benefits of community gardens that facilitate recreational experiences and some awareness around food production, but that do not contribute substantially to communities' socio-economic circumstances.

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