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A REFLEXIVE DISCOURSE OF THE LOCAL PLACE:

URBAN FOOD GARDENERS IN THE CITY OF BRISBANE, AUSTRALIA

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ABSTRACT

In response to the dissatisfaction with the pitfalls of the corporatised global food system over the last two decades, urban dwellers in the Global North have begun to implement alternative food initiatives (AFIs). AFIs tend to be underpinned by discourses of localism with discursive emphasis on the local place where communities can embed food production and distribution with an ethics of care, social justice and ecological responsibility. Urban AFIs consist of biochemical free production initiatives such as: commercial urban agriculture projects (city farms); growing food on sidewalk verges, vacant land and in community and backyard gardens; and distribution initiatives of crop swaps; farmers' markets; and box schemes. This thesis builds on a growing body of research that often discuss the constructions of localism discourses with some arguing that AFIs in the developed world should realise a 'reflexive' localism underpinned by a discourse that acknowledges issues at scales other than the geographic point of local system i.e. discursive emphasis on structural political change at state and global scales. Critics of many current AFIs claim that the lack of capacity of AFIs to challenge, or at least offer a viable alternative to, the corporatised global food system is partly due to practitioners' articulations of an 'unreflexive' discourse of defensive localism. The discourse of defensive localism embeds a non-negotiable geographic boundary enclosing a particular cohort's personal sentiments and values, which are unrepresentative of local issues at that particular place. An 'unreflexive' discourse of defensive localism includes discursive emphasis on personal responsibility, voluntary action, competition and efficiency.

This thesis examines this phenomenon and is based on theorisations of subjective reflexivity and constructions of discourses at the local place, focusing on urban backyard and community garden food gardeners in the city of Brisbane, Australia. The question addressed by this thesis is: Are urban food gardeners in Brisbane, Australia merely growing food or reflexively constructing the local place as a response to a dysfunctional food system?

The research question is explored using a qualitative, social constructivist epistemology. Using a methodology of discourse analysis, semi-structured interviews were conducted with 19 urban food gardeners who produced some of their household food requirements in community gardens and household backyards. Urban food gardeners viewed the

hegemonic food system in Queensland as dysfunctional based on perceptions of the ecologically unsound, mechanised cultivation practices and unequal power relations that favour large scale food retailers over farmers —interpretations that conform in many respects to Marx's concept of metabolic rift.

Interpretations of gardeners' strategies and motivations were theorised using Farrugia's (2013) 'reflexive subjectivity theory' along with food and agriculture studies that approach the implications of constructions of localism discourses with theorisations of 'place' proposed by human geographers.

By using these theoretical approaches, it was revealed that urban food gardeners in Brisbane have developed a localism discourse which emphasises: self-reliance; building links to the community; building links to the environment, repairing the metabolic rift; and ethical livelihoods based on market and non-market food economies. Within this discursive terrain, the feature importance is the positioning of activities at multiple scales of the garden, suburb or nation.

The thesis concludes that Brisbane-based urban food gardeners are underpinning their approach to the local with a reflexive localism discourse that challenges the hegemonic food system by engaging with ecological realties and personal sentiments at the garden site, building community knowledge through teaching how to grow food using ecological systems at the scale of the suburb; and the development of an ecological based and socially just food economy scaled to include the State.

Declaration by the Author

This thesis is composed of my original work, and contains no material previously published or written by another person except where due reference has been made in the text. I have clearly stated the contribution by others to jointly-authored works that I have included in my thesis.

I have clearly stated the contribution of others to my thesis as a whole, including statistical assistance, survey design, data analysis, significant technical procedures, professional editorial advice, and any other original research work used or reported in my thesis. The content of my thesis is the result of work I have carried out since the commencement of my research higher degree candidature and does not include a substantial part of work that has been submitted to qualify for the award of any other degree or diploma in any university or other tertiary institution. I have clearly stated which parts of my thesis, if any, have been submitted to qualify for another award.

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Publications during candidature

None

Publications included in this thesis

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urban food gardeners, community gardens, backyard gardens, reflexive, local, place

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List of Abbreviations used in the thesis

None

CHAPTER ONE: INTRODUCTION TO THE THESIS

Food activists and scholars have identified that some urban dwellers in metropolitan centres of developed countries source their household food requirements from initiatives that involve production at the sites of community and backyard gardens, rooftops, suburban verges, city orchards and farms, and peri-urban and rural small-scale farms (McLain, Poe, Hurley, Lecompte-Mastenbrook & Emery, 2012; Baker, 2004). Urban dwellers also access foods through crop/food swaps, community led groceries, box schemes, farmers' markets, and community supported agriculture (Block, Chavez, Allen & Ramirez, 2012; Beckie, Kennedy & Wittman, 2012; Civil Eats, 2011). The aforementioned production and distribution systems are discussed in the sociological literature as Alternative Food Initiatives (AFIs) and are developed in response to the limitations of the globally organised capitalist food system. This thesis focuses on AFIs of non-market based food production in community and backyard food gardens in the urban setting of the city of Brisbane, Australia and addresses the question: 'Are urban food gardeners in Brisbane, Australia merely growing food or reflexively constructing the 'local place' as a response to a dysfunctional food system?' In approaching questions specific to the act of non-commercial urban food production initiatives, the following section traces the history of initiatives of community and backyard food gardens in the United States, United Kingdom, Canada and Australia.

Community and Backyard Food Gardening

Over the last three decades, metropolitan centres of the developed world have seen a re-engagement with urban food production, with community gardens, backyard gardens and city farms as the main production sites. This section briefly traces the history of urban food production in community and backyard gardens in developed nations beginning with the 'dig for victory' campaign during the First and Second World Wars.

In the United States, United Kingdom, Canada and Australia, the urban-centred 'dig for victory' campaign promoted empty lots and backyards as spaces for the production of vegetables for the household kitchen. As a material activity, there was a waning after the war as food became plentiful, and industrialisation of the food chain caused prices to fall. However, despite this abundance of affordable food, there has again been a rapid uptake

of food production in urban spaces. For example, in the UK, a city farm was established in Kentish Town in 1974 increasing to over 60 city farms and 1000 community gardens nationally in 2009 (Bal, 2009). In the US, vegetable cultivation of vacant lots began in 1973 in New York and to date there are over 18 000 community gardens across the country (Bal, 2009; Snowden, 2010). In Canada, community gardens were re-established between 1965 and 1974, and currently, most Canadian cities have community gardens; the largest presence being in Montreal where the first was established in 1974, increasing to 72 gardens by 1996 (Ayalon, 2006). In the UK, while demand for allotment sites has waxed and waned, it peaked in 1997 with 296 923 plots established in England and a waiting list of 12 950 people (Gaynor, 2006). The current uptake of backyard food cultivation in developed countries has been partly attributed to popular environmental writers and speciality gardening and cooking shows promoting domestic food production for the masses (Schupp & Sharp, 2011). Australia's re-engagement with community gardening and productive backyard gardening also started in the 1970s. From 1977, there was growth from one community garden to 38 by 1996 (the majority, 26, were established between 1990 and 1996) (Gelsi, 1999; Gaynor, 2006). By 2011, there were 240 registered community gardens in Australia, with 31 in Brisbane (Gelsi, 1999; BCC, 2012). The most common members of contemporary community gardens in these countries are in the Anglo middle-class demographic (Stocker & Barnett, 1998; Dixon, 2009; Goodman & Goodman, 2007; Hinrichs, 2003; Alkon & Mares, 2012). In Brisbane, a 2011 survey found nine cultural backgrounds were represented within community garden membership (Guitart, 2011).

As stated above, in assessing the uptake of backyard gardening in the US by the increase in speciality television shows, a similar assessment can be made about Australia. Gardening Australia, aired on the public broadcaster ABC, began in 1991 with a focus on backyard food production (Bonner, 2008). Another Australian gardening show, Vasili's Garden, started in 2006 on the public multicultural broadcaster Special Broadcasting Service (SBS). The program focuses on gardens that are not necessarily aesthetically pleasing but are valued by the extent, and quality, of edible plants (Bonner, 2008).

To place this thesis into broader social and political context, it is necessary to understand the global food system (GFS) in which urban food gardeners operate. The corporatisation of the GFS is discussed further in Chapter Two due to its relevance to the research

question explored by this thesis. In exploring the contemporary GFS, two concepts are especially relevant: the corporate dominance in the food supply chain, and food security policy, both of which are discussed in the following section.

The Global Food System – A Food Security Discourse

The global food policy of 'food security' was developed in 1974 in response to famines, world hunger and environmental degradation. Hunger was defined as "people lacking food" without acknowledging the role of markets in decreasing food access (Friedmann, 2005, p. 245). This definition of hunger was used as a discursive device by key individuals in the policy arena to justify ensuring food supply through free trade alliances (Tomlinson, 2013; Patel, 2007), and increased production by technological advances and external food aid (selling food abroad at a price lower than the domestic market) (Tomlinson, 2013; Friedmann, 2005; Fairbairn, 2010; Patel, 2007). Governments concurrently implemented 'structural adjustments' by dismantling domestic marketing boards, eliminating local agricultural subsidies, and cancelling credit programmes for small-scale farmers (Carolan, 2012). The underlying ethos of structural adjustments was the belief in the backwardness and decline of peasant farming (Friedmann, 2005). Concurrently, faith was placed in the market to continually supply calories from Northern based world 'granaries' via transnational corporations (Lawrence & McMichael, 2012). Granaries, which were artificially cheapened via subsidies, displaced thousands of small-holders. Small-holders were unable to compete with the flood of cheap imported food and, this in turn reduced the farming capacity and self-sufficiency of these countries (Carolan, 2012; Lawrence & McMichael, 2012; Patel, 2007; Rivera-Ferre, 2012; Wittman, Desmarais & Wiebe, 2010). The short-sightedness of such policies became particularly apparent with the food price increases in 2007-2008. These price increases crippled low-income households in developing countries, as these households typically spend close to (or more than) half of their disposable annual incomes on food (Carolan, 2012).

The current era of food production and distribution began in 1980, with the deepening of the ethos that capitalist markets are the vehicle to achieve national food security and "economic growth and modernity" (McMichael, 2009, p. 141; Friedmann, 2005). Subsequently, an increase in capitalist interest in the food system led to corporations and

global financial institutions occupying new sectors of the food system (Burch & Lawrence, 2009; Abergel, 2011). The impacts of corporate interests in the global food supply chain are discussed in the following section.

Corporate interest in the food supply chain

Friedmann (2005), amongst other researchers, highlights that private capital is leading the field of investments in the food supply chain, due to pressure to reduce national food standards to facilitate trade agreements (Patel, 2007; Holt-Giménez & Shattuck, 2011). Despite private food supply chains having higher food standards than those of the nation state, researchers and food activists argue that the value of these higher quality commodities are priced in relation to rich Northern consumers (McMichael, 2009; Holt-Giménez & Shattuck, 2011). Friedmann (2005, p. 251) claims that the current food regime is a perverse outcome of “a convergence of environmental politics and retail led reorganization of food supply chains”. For example, in Latin America, the rising demand for organic foods in Europe reinforces the position of large scale industrial producers in Brazil. The resulting market competition favouring large scale industrial producers displaces, small-scale family farms (Friedmann, 2005; Patel, 2007). Guthman (2004) and Gunderson (2014) conducted research into the consumption practices of urban dwellers in developed countries. They argue that commodity fetishism strategically enables consumers to displace their concern for the social and environmental impacts of industrialised agriculture. Guthman (2004) suggested that “the success of the organic industry was largely wrapped up in gentrification-and the class differentiation that necessary entailed” (p.47). Gunderson (2014) concludes that, in Marxist terms, the displacement of concern, “reinforces consumer society’s belief that commodities have an independent, ‘supra-sensible’ form” (p.115).

Along with these changes in the consumption practices of urban dwellers in developed countries, part of the intensification of the capitalist possibilities of the agriculture sector, embedded changes in approaches to land management. The productivist model of agriculture was emphasised as, “maximising food production though the application of intensive production approaches and increasing biochemical application” (Burton, 2004, p.195). Specialisation in production types was encouraged by governments in the form of subsidisation, price guarantees and protectionist policies (Richards, 2007). Corporate interest in the food system in the 1980s and ‘90s saw the industrialisation of food

production horizontally integrated with those of the pharmaceutical industry and vertically integrated with those of agricultural chemicals and seeds (Friedmann, 2009).

As discussed in this section, social and ecological outcomes of the GFS are the deskilling of small-scale farmers in the developing world, displaced social concern on the part of urban dwellers, and land degradation. Social and ecological outcomes of the GFS are theorised by scholars as based on the commodification of food, resulting in a disruption of the socio-ecological relationship. This disruption of the socio-ecological relationship by the capitalist paradigm was termed the 'metabolic rift' by Marx in the 1870s (Wittman, 2009). Agriculture and food scholars find it useful to return to Marx's concept, and this is discussed in the following section.

Theoretical implication of the GFS - The metabolic rift

The concept of metabolic rift highlights socio-ecological structural relations that are the basis of any exploration of living within a capitalist paradigm. The socio-ecological relationship is sustained over time through the recycling of nutrients, creating a closed loop system (Wittman, 2009). However, capital accumulation is underpinned by the commodification of food, and this has disrupted the socio-ecological relationship. Wittman (2009) and McClintock (2010) highlight that Marx termed this disruption metabolic rift. Marx argued that through changes in labour relations wrought by capitalism, the dynamic and interdependent processes linking society and nature were disrupted (Wittman, 2009; McClintock, 2010). Social relations between producer and consumer are also impacted by changes in the role of the farmer in food production. Contemporary applications of Marx's concept of metabolic rift confirm his point that the rift "reifies a false dichotomy between city and country, urban and rural" (McClintock, 2010, p.3) — thus creating an experiential distance between producers and consumers.

Having examined the global food system in regards to the current political-economy and the theoretical implication of metabolic rift, this chapter now turns to an examination of discourses that reject the normative claim for market rationality in global food provisioning. The following discussion focuses on the academic literature that examines discourses capable of challenging the paradigm of the GFS: 'food sovereignty' and 'the local place'.

Discursive Challenges to the Global Food System

Challenging and shifting current global food system policies could mitigate the effects of the industrial food system, which are: environmental degradation, the social distancing of rural producers from urban consumers, the disembedding of the place of food production from the knowledge systems of consumers, and the loss of meaning that, consumption of culturally appropriate foods is an element of human expression (Wittman et al., 2010; Giddens, 1990; Patel, 2010; Rosin, Stock and & Campbell, 2012). An example of a discourse that politicises the naturalised claim for market rationality in global food provisioning is food sovereignty. Food sovereignty challenges the GFS by "invoking rights to self-determination, the right to development and the right to permanent sovereignty over natural resources" (McMichael, 2014, p.937). The food sovereignty project was developed through the efforts of the global agrarian movement La Via Campesina which began working with civil society actors to further elaborate the food sovereignty framework (Wittman et al., 2010:3). Despite the original framing of food sovereignty by farmers in Latin America, the food sovereignty discourse offers concerned food citizens in developed nations a broader understanding of the political implications of the GFS.

Discourses underpinning food projects in developed nations are underpinned by the ontological standpoint that food system localisation is a progressive and desirable process (Block et al., 2012; Hinrichs, 2003; Alkon & Mares, 2012; Allen, 2010; Dupuis and & Goodman, 2005; Fairbairn, 2012). An examination of alternative approaches to food production and distribution are discussed in the literature as: alternative food networks (Beckie et al., Kennedy and Wittman, 2012; Sonnino & Marsden, 2006; Goodman & Goodman, 2007); personalised sustainable food systems (Hendrickson and & Heffernan, 2002); alternative strategies (Kirwan, 2004); alternative food systems (Zerbe, 2010); and alternative food initiatives (Allen, FitzSimmons, Goodman & Warner, 2003).

The capacity of alternative food systems, networks and initiatives to challenge the hegemonic global food system is argued by scholars and activists to be in part dependent on discursive framings of the 'the local place'. For example, discursive framings of the local place, can involve a defensive, exclusionary impulse that can lead to radical particularisms in the context of urban and rural local imaginaries. Results of such imaginaries are reiterations of paradigms similar to the GFS being embedded in the operational framework of AFIs. In the context of this thesis, the call by food scholars and

activists is to underpin alternative food initiatives (AFIs) with a discourse of social and ecological justice- based politics capable of shifting the neo-liberal paradigm of the hegemonic GFS (Guthman, 2008b).

The following section focuses on AFIs in developed nations and the underlying discourses that either build capacity to challenge the current GFS or reproduce the structures of the current GFS.

Discourses underpinning AFIs – Reflexivity and understanding the local place

Chapter Two offers a discussion of the literature that guides this thesis' examination of the meaning of the social action of particular AFIs of urban based backyards and community food gardens. AFIs in Brisbane also consist of biochemical free production initiatives, including commercial urban agriculture projects (city farms),growing food on sidewalk verges and vacant land, and distribution initiatives of crop swaps, farmers' markets, and box schemes. The literature in Chapter Two includes sociological theorisations and observations of the implications of reflexivity in constructing discourses that underpin the local place where AFIs of backyard and community gardens occur. In the sociological literature, reflexivity is broadly defined as the capacity of an agent to decide what they value and organise their priorities in order to make sense of their lives, resulting in the re-imagining of some pre-given norms and values. Reflexivity in modernity is of interest to academics since it plays a role in "understanding the modern relationship between subjectivities and social structures" (Farrugia, 2013, p.10). An introduction to researchers and their theorisations of the role of reflexivity in the construction of discourses of local place are discussed in the following section.

Reflexivity in modernity

Modern subjectivities reflect the hegemonic structures of the social order, but so too can they reflect less dominant yet pertinent changes in the social order. In the context of food provisioning, reflexive subjectivities can not only reflect the neo-liberal hegemonic structure of the global food system, but also the growing ecological and social justice based paradigms of AFIs. As Miele (2006) points out, there is a mixing of routinised,

unconscious embedded values; and reflexive, consciously re-thought values, in the framing of alternative food provisioning practices.

Agriculture and food scholars support the view that "global industrial agriculture has succeeded through the creation of a systematic 'placelessness'" (Dupuis & Goodman, 2005, p. 360). From their work, DuPuis and Goodman (2005) conclude that "place has a role in the building of alternative food systems" (p. 360). Researchers have also theorised that discourses and strategies specific to the localisation of food systems promote solutions to issues regarding the lack of knowledge about where food is from (Bové, DuFour and Luneau, 2002), environmental degradation due to the productivity model of agriculture (Burton, 2004; Richards, 2007; Friedmann, 2009), and social justice in the context of producers and consumers (Richards, Lawrence, Loong & Burch; 2012; Guthman, 2014; Alkon & Mares, 2012; Allen, 2010).

An unreflexive approach to the local place

In activist discourses, the local tends to be framed as "the space or context where a community's values and ethical norms can be realised" (Dupuis & Goodman, 2005, p.359). A community's values and ethical norms are perceived to be necessary to the construction of an ethical, safe and resilient local food system. However, research into the contestations involved in what a localised AFI should look like has found that claiming localised AFIs as the solution to the GFS "betrays a problematic mode of binary thinking" (Hinrichs, 2003, p. 34). Simply claiming the global as 'bad' and local as 'good' does not address how the local can be defined by one cohort to the detriment of another. For example, researchers have observed that there is a tendency by some self-selected local elites to construct localised AFIs with the aid of an unreflexive discourse of defensive localism (DuPuis & Goodman, 2005). This discourse embeds similar norms and values to the GFS (Allen, 2003, 2010; Alkon & Mares, 2012; Guthman, 2008b), manifesting in AFIs that are not inclusive of some social groups and/or a dis-engagement from global socio-economic issues that have led to local food issues.

Academics and activists claim that an unreflexive, defensive localism discourse develops because of a lack of acknowledgment on the part of some AFI practitioners of what constitutes the local place. The following section includes a discussion of human geographers' theorisations of what constitutes the local place. Theorisations of local place

have been adopted by food scholars in examinations of the capacity of AFIs to challenge the GFS.

A reflexive approach to the 'local place'

Geographers theorise that spatial scales have "no pregiven or fixed ontological status" but are socially constructed (Amin, 2002, p. 386); thereby removing conceptual limits to what constitutes or, can constitute, the local place. It is argued by Amin (2002) that the local place is realistically viewed as where the politics of various scales- global, national and local- merge. With this heterotopic understanding of local place, local events cannot be considered as ontologically separate from global events (Amin, 2002).

Food scholars, who have engaged with Amin's (2002) theorisations of the local place, have developed the argument that constructing AFIs using a paradigm of an open, inclusive and reflexive notion of place would have more relevance to local issues and an increased capability of challenging the limitations of the hegemonic food and agriculture system (Fairbairn, 2012; DuPuis & Goodman, 2005). Similarly, this thesis engages with Amin's (2002) heterotopic understanding of place and seeks to assess if Brisbane based urban food gardeners' understanding of the local place is open, inclusive and reflexive.

Research in Australia

The few studies in Australia that have looked at reflexive citizen action have found oppositional initiatives were taken by some community and backyard food gardeners (Sharman, 2010). Community gardens were also found to be used to engage the wider community in sustainability projects and reduce social exclusion in Perth (Stocker & Barnett, 1998; Evers, 2010) and Melbourne (Kingsley & Townsend, 2006; Kingsley, Townsend & Henderson-Wilson, 2009; Dixon, Donati, Pike & Hattersley, 2009). Studies have highlighted that community and backyard gardening are not always about food system change, but may be more about community development, education, and the creation of social relationships.

A few recent studies include backyard food producers in examinations of food production initiatives in relation to food security (Kotright & Wakefield, 2010). Larder, Lyons and Woolcock's (2012) study in 2008-2009 examined the motivations of eight Brisbane

backyard urban food gardeners. Larder et al. (2012) concluded that study participants were more reflexive actors, their critical motivation being “the opportunity it provided for the right to choose, or to enact choices, within the food system” (p.10). The approach taken in this study of Brisbane was to discern the discursive emphasis in reflexive constructs of the local place. The question asked in this thesis is: Are urban food gardeners in Brisbane, Australia merely growing food or reflexively constructing the local place as a response to a dysfunctional food system?

The 19 urban food gardeners interviewed for this study were composed of nine urban dwellers who grew food in their neighborhood’s community garden and 10 urban food gardeners who produced food in their backyard. To date, there has been little examination of the role of backyard food gardeners in the discursive construction of the local place. Since backyard food gardeners in Australia are increasing in visibility, they have been included in this study in recognition of the gap in the research.

In approaching the research question, sub-questions were developed in order to discern how gardeners are discursively approaching the ‘place’ of their food provisioning. The following three research sub-questions were formulated:

1. What are Brisbane-based community and backyard gardeners’ motivations and legitimisations for growing and sourcing their food?
2. How do Brisbane-based community and backyard gardeners conceptualise the practice of growing and sourcing their food?
3. How do Brisbane-based gardeners conceptualise the geographic place of where they grow and source their food requirements?

The Study Area – The City of Brisbane

This study was informed by a qualitative research methodology. A social constructivist-interpretivist epistemological approach was employed, with data sourced from interviews with nine community urban food gardeners and 10 backyard urban food gardeners in the City of Brisbane in regards to the social phenomenon of urban food production

Brisbane is a rapidly urbanising city in South East Queensland (Figure 1). Along with the food growing advantages of its sub-tropical position, multicultural population and traditionally large housing blocks, Brisbane has a tradition of extensive backyard food gardens and market gardens.

Source: http://www.brisbane-australia.com/media/images/map-aus-thumb.gif

Figure1. Location of the City of Brisbane, Queensland, Australia.

Thesis Summary

Following this introductory chapter, the literature review in the following chapter examines research focused on the historical and contemporary forms of governance and structural relations of the global food system (GFS). This approach was taken to highlight producers and urban consumers in cities in US, UK, Australia and Canada who are experiencing limitations of the GFS. Producers and urban consumers describe a range of impacts on themselves and their communities, such as the systematic 'placelessness' of food, environmental degradation due to the application of biochemicals, and the subordination of national farmers to large scale food retailers and processors. Impacts are discussed further beginning with researchers' application of theories of the tendency of globalised systems to remove social action from the context and particularisms of the social and ecological place. This section of the discussion also includes food and agriculture studies that apply Marx's concept of metabolic rift in analysis of impacts of modern capitalist systems.

The literature review then features examples of urban dwellers' response to the GFS by instigating AFIs of community gardens and backyard food gardens in cities in the US, UK, Australia and Canada. Examples are given that highlight the role of reflexivity in the construction of the 'local place'. However, what constitutes the local place is contestable. As such, Chapter Two also examines theoretical discussions by food and agriculture researchers who analyse local place using theories proposed by human geographers. Human geographers develop ways of conceptualising how what happens at the site of a particular geographical area, such as suburb, is partly dependent on what happens at other scales, such as the city, nation and the globe. Thus the argument proposed by food and agriculture researchers is that in order to achieve effective and appropriate action for communities, AFIs should be underpinned by a reflexive localism discourse that acknowledges issues at scales other than the geographic point of the particular system, with discursive emphasis on structural political change at national and global scales.

However, researchers have gathered evidence that some AFIs are taking a defensive approach to what constitutes the local place. In the second half of Chapter Two critical studies of urban dwellers' constructions of AFIs describe the effects of an unreflexive discourse of defensive localism. Included in this section are examples of community gardens in the US that demonstrate a discourse of defensive localism. Scholars argue that this discourse is the result of valorisation of the geographic position of a particular group or community.

Having ascertained that reflexively constructing a localism discourse at the micro social scale is necessary in order to create AFIs that can mitigate, and possibly shift, the macro social capitalist paradigm of the GFS, Chapter Three explores theoretical frameworks of the reflexivity thesis and the extent of subjective power in the construction of personal discourses. Chapter Three concludes that Farrugia's (2013) version of the reflexivity thesis can successfully guide this exploration of constructions of localism discourses by urban food gardeners in Brisbane. 'Subjective reflexivity' is clarified by Farrugia (2013) as follows:

> The concept of reflexivity captures the operation of macro-social processes and micro-level practices of identity work, making reflexive subjectivities part of a broader terrain of changes in the structures, cultures, and subjectivities that make up modernity (p.13).

Chapter Four describes the methodological approach of this thesis. The qualitative social constructivist-interpretivist epistemology has been adopted to acknowledge the ontological standpoint of the prominent role of social actors in constructing social phenomena. A discursive analytic approach is undertaken in order to understand the meaning of the social action of backyard and community gardening through the language and discursive tools used by participants. Purposive sampling resulted in the recruitment of nine backyard food gardeners and 10 community gardeners across the Brisbane City Council area.

Chapter Five is the first of three analysis chapters that describe and theorise the findings according to Farrugia's subjective reflexivity thesis. Given the discussion in Chapter Two and Three that localism discourses can be either unreflexive and defensive; or reflexive, negotiable and inclusive, Chapter Five provides empirical evidence to answer sub-question one: What are Brisbane-based community and backyard gardeners' motivations and legitimisations for growing and sourcing their food? Brisbane-based community and backyard gardeners were motivated by self-reliance to grow some of their own food and trust in small-scale retailers, farmers' markets; and box schemes. Gardeners legitimised all these food sources in a discourse of a dysfunctional global food system with discursive emphasis on: i) the use of biochemicals and mechanisation in industrial agriculture; ii) corporate control of producers and the food retail sector – Woolworths and Coles; iii) lack of availability of quality produce at the two main food retailers in Queensland, Woolworths and Coles; and iv) lack of knowledge of how food is produced. Guided by Farrugia's (2013) subjective reflexivity theory, this chapter concludes that gardeners' reflexive use of knowledge of where the limitations lie in the global food system led some to what they perceived as the only solution; that of becoming self-reliant by growing some of their food and sourcing the rest of their food requirements from small-scale food retailers, farmers markets and box schemes.

The literature in Chapter Two establishes how AFIs underpinned by unreflexive defensive localism discourses emphasise personal responsibility, voluntary action, competition and efficiency. Thus, Chapter Six asks: How do Brisbane-based community and backyard gardeners conceptualise the practice of growing and sourcing their food?

Within Chapter Six it is established that Brisbane-based community and backyard gardeners undertake actions at three different scales, and actions vary depending on the scale. At the scale of the garden, gardeners are accumulating new knowledge about

ecological growing systems and achieving a level of self-reliance. Accumulating new knowledge involves practises of reflexive re-working of European methods of food production using row planting; and integration of new knowledge in the form of permaculture. At the scale of suburb, most gardeners conceptualised acts of growing their own food as a form of knowledge accumulation, which in turn led them to teach others to grow food. The act of supporting local retailers instead of transnational supermarkets Coles and Woolworths was conceptualised by gardeners as keeping fiscal economies in the suburb, building community resilience. At broader scales of States of Queensland, New South Wales and Victoria, gardeners practiced, and envisioned, re-configured food economies that enabled an approach to creating ethical livelihoods for themselves and others in the neighborhood. Gardeners also practiced and envisioned building non-market based trades into food economies would enable cohorts limited by capital to access fresh foods.

Chapter Seven, the final findings chapter, asks: How do Brisbane-based gardeners conceptualise the geographic place of where they grow and source their food requirements? Within this chapter it is established how gardeners articulate that backyards are for growing food, and teaching others how to grow food using ecological growing systems. Sites are theorised in this chapter as repairing the metabolic rift between society and the environment. It is argued that sites of ecological food production are also where gardeners learned to be more reflexive in how they grow food and they achieved a sense of pride in their ability to 'work with nature'. Gardeners also reported that growing their own food changed their view of the environment at the scale of the suburb. This chapter concludes that by growing their own food and engaging with short chain supply systems, enabled gardeners to exercise their reflexivity and make more informed choices on what growing practices to use in the garden and which local food retailers to support. This process developed in gardeners a sense of pride in their ability to reflexively underpin their food provisioning system with their values and new knowledge.

Chapter Eight, the concluding chapter, highlights the value of adopting Farrugia's (2013) reflexive subjectivities thesis. Reflexive subjectivities reflect not only the macro structure of the GFS, but also emerging structures of AFIs based on environmental and social justice and the contextual particularities of impacts of the GFS. Urban food gardeners develop a localism discourse with an emphasis on self-reliance, building links to the community and

the environment, and ethical livelihoods based on market and non-market food economies. This discourse acknowledges that the local consists of three geographic scales, comprising: i) the site of the garden, ii) the suburb, and iii) the nation. Through the discursive emphases mentioned above, food becomes a conduit of human expression and a way of repairing the metabolic rift. This latter aspect of the discourse is inclusive of practices across scales, which is an important finding in this study. There could have been a misleading interpretation of self-reliance which could appear defensive at the scale of the individual and the neighborhood. However, when viewed in relation to the discursive emphasis underpinning actions at differing scales, developing self-reliance could be a means to other ends that involve global concerns and issues.

The thesis concludes that Brisbane-based urban food gardeners are underpinning their approach to the local with a reflexive localism discourse that challenges the hegemonic food system by engaging with ecological realties and personal sentiments at the garden site, building community knowledge through teaching how to grow food using ecological systems at the scale of the suburb; and the development of an ecological based and socially just food economy scaled to include the state.

CHAPTER TWO: RESPONSES TO THE GLOBAL FOOD SYSTEM

This chapter reviews the literature relating to the historical and contemporary forms of governance and structural relations of the global food system (GFS) that have led to impacts on producers and consumers in developed and developing nations. This approach highlights food activists and academic researchers' observations and theorisations of the GFS and its current impacts on consumers and producers. In exploring this literature, a theoretical background is provided for research sub-question one: 'What are Brisbane-based community and backyard gardeners' motivations and legitimisations for growing and sourcing their food?'

Initiating this discussion is an overview of the structure of the GFS from the 1980s to the present. This section highlights agriculture and food as a means to capitalist accumulation, an undertaking that is promoted by global and national policies. Following this section is a review of the literature that takes a critical approach to the GFS. The literature is an overview of the impacts of the competitive market productivist approach taken by global agri-business. Three impacts of the GFS are highlighted due to their relevance to this thesis and are as follows:

1) The systematic 'placelessness' of food;

2) Environmental degradation due to the productivity model of agriculture; and

3) Subordination of Australian farmers to large scale food retailers and processors.

With these impacts in mind, the final discussion of the literature includes researchers' application of the concept of 'metabolic rift' which results as the tendency of globalised systems to remove social action from the context and particularisms of the social and ecological place. Included in this section are two examples of alternative food initiatives (AFIs) in developed nations that highlight discussions of the role of reflexivity in the construction of the 'local place'. This discussion includes the literature of food studies, best exemplified by Goodman and DuPuis (2005), Allen (2003, 2010) and (Fairbairn, 2012). Studies are supported by broad theorisations of geographical place discussed by Harvey (1996), Harvey and Williams (1995) and Amin (2002, 2004).

Impacts of the GFS on Producers and Consumers

In conforming to market relations, the current GFS has resulted in: the systematic 'placelessness' of food; environmental degradation due to the productivity model of agriculture; and subordination of national farmers to large scale food retailers and processors. Discussions of the impacts of the GFS include sociological theorisations of disconnections of social systems from the social and ecological place (McMichael, 2005; Patel and McMichael, 2004; Holt-Gimenez and Shattuck, 2011; Giddens, 1990; Wittman, 2009).

The following section discusses each impact of the GFS beginning with the systematic 'placelessness' of food as a result of the global food system.

1) The systematic 'placelessness' of food - Food from 'nowhere'

Globalised commodity supply systems are disembedded from a frame of reference, i.e. a place, rendering information crucial for decision-making invisible to the individual. The invisible place from where food is sourced is discussed in the literature as 'food from nowhere' (Bové et al., 2002).

Theoretical examinations of the overall dynamics of modernity highlights that the removal of the limitations of individual 'presence' negates societal relations from the immediacies of social context. In modernity, social activity is implemented by 'absent others' who control time relations (Giddens, 1990, p.18). Commodity supply systems are now globalised and disembedded from a frame of reference, i.e. a place, rendering information crucial for decision-making invisible to the individual.

Food consumption and production processes in modernity involve detradionalised dynamics of space and place relations. The GFS adopts this paradigm by distancing producers from consumers in space and even over time. This framework works for some consumers, because they are willing to place trust in distant relations. Distant relations are justified by multinational retailers and the agricultural sector as a means to increase the diversity of commodification processes so as to supply consumers with a range of agricultural products — unrestricted by place-time relations. An example is that consumers in the Global North have access to fresh foods year round due to the lengthening of production networks (Hendrickson & Heffernan, 2002).

As part of the intensification of the capitalist possibilities of the agriculture sector, there have been changes in approaches to land management. Changes in the approach to land management were led by the productivity model of agriculture. Environmental degradation resulting from this is discussed in the following section.

2) Environmental degradation due to the productivity model of agriculture

The productivity model of agriculture has been defined as "maximising food production though the application of intensive production approaches and increasing biochemical application" (Burton, 2004, p.195). Specialisation in production types was encouraged by governments in the form of subsidisation, price guarantees and protectionist policies (Richards, 2007). Corporate interest in the food system in the 1980s and '90s saw industries of food production vertically integrated with those of agricultural chemicals and seeds (Friedmann, 2009). The resulting disruption to socio-ecological structural relations has been theorised by agriculture and food scholars with the aid of the Marxist concept of metabolic rift (Wittman, 2009; McClintock, 2010). This is discussed in detail below.

The metabolic rift

In Marx's conceptualisation of 'the metabolic rift', changes in labour relations by capitalism lead to a disruption of the dynamic and interdependent processes linking society and nature (Wittman, 2009; McClintock, 2010). For example, large commercial farms require the farmer to produce one crop or animal, chosen by food retailers and coupled with standardised inputs (synthetic fertilisers and pesticides). This specialisation has resulted in a loss of farmers' traditional cultivation and land management knowledge (deskilling) and has contributed to soil erosion, a reduction in soil health and biodiversity loss (Gilbert, 2012; Lawrence & McMichael, 2012; Burmeister & Choi, 2012; Febles-Gonzales, 2011).

Apart from the metabolic rift between producers and the land, farmers in developed countries also experience an unethical business paradigm controlled by large scale food retailers and processors. A discussion of the unethical business paradigm is discussed in the following section with a focus on Australian producers.

3) Subordination of farmers to large scale food retailers and processors

Theoretical discussions of power imbalances in the GFS by Hendrickson and Heffernan (2002) and Moreira (2011) highlights that power rests with those who structure the system,

spanning distance and decreasing time between consumption and production. With this restructuring of the system to favour increasing concentration of ownership and control of all stages of the food system, nodes of power are created. Each node of power controls many of the decisions from gene to supermarket shelf, preventing new competitors from entering the market.

In Australia, the food retail sector is concentrated with two supermarkets, Coles, Woolworths and the wholesaler, Metcash holding a combined market share of 70-80% (Richards et al., 2012). Farmers, including large scale producers, who supply raw materials to large food manufacturers experience the ‘cost price squeeze’ (Richards et al., 2012; Burch and Lawrence, 2009). The impact of the control of market share held by the corporate food retail sector in Australia is the modification of farmers’ roles. Richards et al. (2012) point out that the farmer’s role has become that of an employee. Specific practices by major supermarket chains (MSCs) highlight their coercive business practices, “resulting from their concentrated market power which had allowed them to exert their will upon others in the supply chain” (Richards et al., 2012, p. 254). In 2011, this market concentration resulted in the ‘milk price wars’, whereby Coles heavily discounted milk to $1(AUD) a litre. Large retailers, Woolworths, Aldi and Franklins, quickly followed suit and also included other products from the Australian dairy industry, regardless of the impact on producers (Richards et al., 2012).

Producers are undermined by the removal of the ability of the State to intervene in market power imbalances, which is a consequence of the current GFS. Power imbalances in the market based system positions producers as having less to do with structuring the system than corporatised retailers.

Having examined the impacts of the GFS on producers and consumers this chapter now turns to an examination of resistance to the GFS. The following discussion examines the academic literature that highlights the implementation of alternative food initiatives (AFIs) in developed nations.

Alternative Food Initiatives

Alternative food initiatives (AFIs) take the form of 're-localised, re-connected' or 're-spatialised' relationships of food production, consumption (Kneafsey, 2010) and distribution (Goodman & Goodman, 2007). Re-localisation, also termed 'localisation' in sociological literature, is implemented to mitigate the tendency of globalised systems to remove social action from the context and particularisms of place. With this ontological standpoint in mind, AFIs can take the form of community and backyard gardens, farmers markets, 'crop swaps', seed-saving and box schemes. AFIs are implemented in order to produce and distribute foods with differing norms and practices to those of the current GFS (Allen, FitzSimmons, Goodman &Warner, 2003; Beckie et al., 2012).

At this point, the literature shifts from that of political-economy into the realm of food studies, best exemplified by Goodman and DuPuis (2005), Allen (2003, 2010) and (Fairbairn, 2012). Studies are supported by theorisations of geographical place discussed by Harvey (1996), Harvey and Williams (1995) and Amin (2002, 2004). Together, this body of literature highlights the implications of growing food in the local place which has departed from the neoliberal paradigm of 'food from nowhere' (Bové et al., 2002), to 'food from somewhere'. That is, food production and consumption are highlighted as context specific, in regards to the notion of place, and re-localised, via AFIs, in a way that reconnects consumers and producers. However, the approach taken by AFI practitioners involves the articulation of a 'localism' discourse with contestable discursive emphases regarding perception of 'place'.

The role of place in the construction of local politics is discussed in the literature as underpinned by Amin's (2002, 2004) work on the 'local' as a contestable political concept resulting in either a politics 'of place' versus 'in place'. Food scholars Goodman and DuPuis (2005), Allen (2003, 2010) and Fairbairn (2012), link Amin's work to the role of reflexivity in constructing localism discourses. In merging discussions of place with constructions of localism discourses in developed countries, this study's thesis is brought into focus, in order to address the research question: Are urban food gardeners in Brisbane, Australia merely growing food or reflexively constructing the local place to challenge a dysfunctional food system?'

Reflexivity and the Role of Place in the Construction of Alternative Politics

The discussion begins with a broad view of the construction of 'new' politics at a place and the effort needed to project politics across space. Harvey and Williams (1995) explore the development of socialist politics pointing out that many, if not all, forms of political engagement have their grounding in localised particularisms based in "ideals forged out of the affirmative experience of solidarities in one place" (Harvey and Williams, 1995, p. 83). However, as pointed out by Harvey, there is a problem in the projection from one's own community experience to a general movement, whereby there is little accounting for 'obstacles', such as inequities and cultural difference. Such obstacles could only be understood through abstractions capable of confronting processes not accessible by direct local experience. Harvey points out that struggles for liberation must internalise a, "certain reflexivity, if not an unresolvable tension" (Harvey and Williams, 1995, p.96). The tension, as Harvey explains, concerns the kinds of abstractions that are necessary to develop working tools for practical action (Harvey and Williams, 1995).

Harvey, in agreement with Williams, concludes that constructions of new social orders should be grounded in a reflexive integration of local particularisms and abstract sets of conceptions that would have universal purchase, to the extent of benefiting social actors at the global level (Harvey and Williams, 1995). Food scholars, in relating concepts to the construction of AFIs in developed countries, find that the local place can be grounded in a defensive form of localised particularisms (Fairbairn, 2012; Allen, FitzSimmons, Goodman, & Warner, 2003; Hinrichs, 2003; DuPuis & Goodman, 2005). Consequently the resulting AFIs do not engage with broader, albeit abstract, conceptualisations of the factors that brought about the local issues in the first place; arguably leaving AFIs vulnerable to co-optation by individuals, groups or corporate entities with values similar to those of the broader neo-liberal based food system.

Seeing a place as a construction framed by varied politics – local, national and global – avoids the fixed set of standards that is usually attributed to the local (Amin, 2003; Dupuis & Goodman, 2005). A 'politics in place' would constitute reflexive attempts to factor in local issues and realities without applying a homogenised form of the local. In the context of this research in Brisbane, a reflexive political discourse by urban agriculturalists underpinning

the construct of the local place would add to research questioning if, and highlighting how, community and backyard food gardeners are politically challenging the hegemonic food system.

The discussion now turns to examples in the US and Canada of backyard and community gardening initiatives that either overtly demonstrate defensive localism or attempt to move beyond this approach to the local. In an effort to further identify the discursive emphases that reinforce a defensive approach to localisation, the following discussion also includes a look at the theoretical implications of Amin's (2002, 2004) concept of place and unreflexive approaches to the local place.

Discursive emphasis underpinning defensive approaches to localisation

The term defensive localism was first articulated in Winter's (2003) examination of discourses underpinning rural local food systems in the UK. In examining AFIs in US and UK cities, food scholars found the term useful when attempting to explain some of the manifestations of food system localisation. In urban studies, the term is applied to discourses underpinning urban AFIs and was discussed in conjunction with Amin's (2003) spatial theorisations of a politics of place. For example, Dupuis and Goodman (2005) discuss defensive localism as an unreflexive, ''politics of place'' based on proximity/particularity of a territory, with local geographic and ideological boundaries and values taken as a given. Dupuis and Goodman (2005) use Amin's (2002) concept of ''politics of place'' to critically highlight the tendency of AFIs in the US to involve a defensive, exclusionary impulse that can lead to radical particularisms in the context of urban and rural local imaginaries. Hinrichs (2003) elaborates that localisation can be approached defensively, whereby localised food systems in the US impose rigid boundaries around the geographic local. Hinrichs (2003) reiterates other US researchers' views that localism can be based on "a category of 'otherness' that reduces the lens of who we care about" (p. 37). The concern is that a defensive approach to food system localisation obscures the complex social and environmental content of contemporary US localities. The valorisation of the geographical source of the food is the core value of the food, masking any limitations on accessibility to fresh foods, land and ecological impacts of food production processes (Hinrichs, 2003). Proponents of a defensive approach to

localism discursively emphasise personal responsibility, voluntary action, competition and efficiency (Allen & Guthman, 2006; Fairbairn, 2012).

The following section includes examples of US community gardens exhibiting defensive approaches to localism, and an example in Canada of community gardens exhibiting a more inclusive approach by caring for 'place'.

Two examples of defensive approaches to localisation

Alkon and Mares' (2012) study of community gardens in Seattle found that despite the numerous community garden projects taking place, many gardeners did not create inclusive paths for integrating Latino/a knowledge and participation. The neoliberal agricultural policy that resulted in the displacement of Latino/a immigrants was ignored by the predominantly white food movement. Paradoxically, an understanding of the dynamics that led to the influx of immigrants should have led 'local food activists to seek out the expertise of new immigrants' providing more durable methods of participation that moved beyond handouts (Alkon & Mares, 2012, p.358). Building power at the local, community level is proposed as one way to mobilise a 'broad transformation' of the corporate food regime. Within a community power building framework, Alkon and Mares (2012) outline that "it is of central importance that food sources are consistent with cultural identities" and are "embedded in community networks" (p.358). Such a framework allows for conceptualisations to go beyond questions of access, to a politically aligned "comprehensive focus on entitlement to land, decision-making and control over natural assets" (Alkon & Mares, 2012, p.358).

Alkon and Mares' (2012) case study is an example of the exclusion of one group by another but there are nuances to the analysis of discourses concerned with localisation. Allen et al.'s (2003) study of California AFIs, termed alternative food provisioning initiatives (AFPIs), included community and backyard food gardens. Interpretations of local place discourses conform in many respects to Harvey's (1996) view that local characteristics are partly produced by the modern food system within which they are operating. According to Harvey (1996) the conventional food system is a heterogeneous landscape reified by commodity specialisations and unequal power relations. Allen et al. (2003) concluded that "the local is not everywhere the same" (p.63). Allen et al. (2003) argued that because of the level of political and institutional opposition AFIs faced, change could only come about

by hollowing out the GFS, thusly reorganising community social and productive capacities. However, Hinrichs (2003) cautioned that hollowing out the GFS with AFIs does not make deep structural changes regarding who gets to make which kinds of food choices. Hinrichs' (2003) study of Iowa local food initiatives found that activists constructed the local as delineated by state boundaries in reaction to the export oriented 'feeding the world' ethos of Iowa State officials. Despite the logic of this formulation of the local, Hinrichs (2003) argued that the focus on 'local Iowa food' obscured questions about exactly which producers were engaged in which production practices, and whether they were family farms or vertically integrated corporate firms.

In contrast to previous examples of community gardens framed by a defensive approach to localisation, the following section highlights Baker's (2010) examination of three community gardens in Toronto.

A different approach to localisation - Caring for 'place'

Baker (2010) examined the notions of 'food citizenship' by immigrant organisers of three community gardens in Toronto. Gardens were organised by immigrant residents with assistance from Toronto based NGO's and the municipal housing corporation. Baker (2010) found that due to their interactions at the gardens, community members generally transformed themselves "from consumers of food into 'soil citizens'' (p.305). The concept of 'soil citizenship' is discussed as the physical act of working with nature, contributing to "the shift in values that is needed for food-system transformation" (p.309). Baker (2010) emphasised that aspects of food citizenship moved beyond the concept of people as consumers of food. Instead, focus was on participation as an essential part of the role of soil citizenship, starting with "community food projects and policies that are grounded in democratic practices" (Baker, 2010, p.309).

In the multicultural city of Toronto, food citizenship "involves the practice of food-system localisation and embodies values of caring for place'' (Baker, 2010, p.309). Here, 'place' is underpinned by a discourse of 'caring for place', with discursive emphasis on cultural diversity integrated with "landscape diversity, reflecting the contemporary diaspora" (Baker, 2010, p.309). In fusing cultural values from another geographic area with those of the new area, along with the specificity of the environment, the local becomes composed of a unique set of characteristics.

Despite these progressive developments, some of the community urban food gardeners in Toronto experienced barriers in their attempts to participate in the wider food movement. For example, non-English speaking urban food gardeners were reported to be alienated from seed saving workshops due to the language barrier. This research concluded that despite constraints by culture (e.g. rejecting seeds that were not culturally relevant and language barriers), alternative urban landscapes offered avenues for participation in food movements concerned with global issues. Overall there was an uptake of immigrants in this city into the wider food movement that would not have occurred if community gardens were not developed.

Discursive Emphasis by Community and Backyard Gardeners in Australia

Research conducted in Perth (Evers, 2010), Melbourne (Kingsley and Townsend, 2006; Kingsley et al., 2009) and Canberra (Turner and Henryks, 2012) has established that community gardens in Australia have the capacity to reconnect members, both socially and environmentally, to the food system. This in turn brings a sense of orientation to the food source. Community gardens were also found to be used to engage the wider community in sustainability projects and reduce social exclusion in Perth (Stocker and Barnett, 1998) and Melbourne (Dixon et al., 2009). In this latter study, Dixon et al. (2009) concluded that growing food in urban centres warrants further examination in the role of "creating more engaged food citizens" (p.17).

The few studies in Australia that have looked at citizen action have found that initiatives taken by some community urban food gardeners were intended to challenge local legislative structure. For example, in 2009-2010, a group of migrant residents in Marrickville, Victoria, redesigned a public space, using jackhammers, and built food garden beds. The residents, after giving the Council a 'tour', were endorsed to continue the work (Sharman, 2010).

Head, Muir and Hampel's (2004) interviews with migrant backyard producers in Sydney, Wollongong and Alice Springs, found that individuals gardened to value the traditions of an older generation. Larder et al.'s (2012) Brisbane study in 2008-2009 examined the motivations of eight backyard urban food gardeners and found that backyarders were reflexive food actors. This finding emphasised backyarders' critical motivation for

undertaking backyard food production was because of the “opportunity it provided for the right to choose, or to enact choices, within the food system” (p.10). This research concluded that the ‘act of growing food at home offers space for hope – where small acts can be seen as part of the broader food sovereignty movement seeking to remake our food system’ (p.1). Larder et al. (2012) recognised backyarders as active agents in shaping a diverse ‘urban agri-food futures’ in Brisbane. This position stands in opposition to other Australian literature that regards backyarders as “valued by their owners as havens of privacy and freedom” (Head et al., 2007, p.327).

Discussion and Conclusion

This chapter has shown that the corporatised global food system has failed in terms of its environmental and social justice credentials. Studies highlighted in this chapter discussed how the change in the framing of food security from one of feeding humanity, to one of privatisation of the State, resulted in a competitive approach to food provisioning. In particular, there has been increased corporate interest in agricultural inputs, land, seeds and chemicals as sources of capital accumulation. This interest by the finance sector increasingly disembedds food and agriculture from social, environmental and economic processes on which socio-ecological relationships rely. The resulting metabolic rift was discussed in this chapter as reifying a false dichotomy between city and country, producer and consumer, and humans and ecological systems.

Highlighted in this chapter were research examples that demonstrated reflexive and unreflexive approaches to the local place. Reflexive and unreflexive approaches to place result in a power struggle over whose values and ethical norms get realised. The role of reflexivity in this struggle determines the extent to which politics achieves normalisation thereby determining the transformation potential and effectuality of the alternative system at all political and geographical scales.

From the dialectic of the effects of structure on agential decision-making, an approach to understand reflexivity is dealt with in the following chapter.

CHAPTER THREE: THEORISING THE ROLE OF REFLEXIVITY IN CONSTRUCTING ALTERNATIVE FOOD INITIATIVES AT THE LOCAL PLACE

This chapter explores reflexivity theories in order to sociologically contextualise responses by urban dwellers in developed countries to limitations in the food system. The previous chapter highlighted structural relations within the industrialised, corporatised global food system (GFS); the resulting power imbalances and metabolic rift; the construction of alternative food initiatives (AFIs) by some cohorts in Australia, US, UK and Canada; and the role of reflexivity in construction of discourses of the 'local place'.

AFI practitioners reflect the growing social justice based politics of the food sovereignty movement, calling for change of the hegemonic structure of the GFS (Guthman, 2008b). However, discussions in Chapter Two also highlighted that, despite AFI proponents' issues with the GFS, many individuals frame AFIs e.g. community gardens, with a defensive unreflexive approach to localism (Winter, 2003; Fairbairn, 2012; Alkon and Mares, 2012; Dupuis and Goodman, 2005). Examining urban food gardeners' subjective, personal, 'reflexive politics' in their construction of the local place and how to frame this place to provide food for themselves and their community, was argued in the literature as an approach to understand how personal politics can limit, or enhance, the capacity of the AFI to be an effective alternative to the GFS (Allen, FitzSimmons, Goodman and Warner, 2003; Dupuis and Goodman, 2005). This chapter focuses on theoretical discussions of reflexivity to provide a background of for sub-question two: How do Brisbane-based community and backyard gardeners conceptualise the practice of growing and sourcing their food?

The discussion begins with sociological examinations by Giddens (1990, 1991) and Beck (1992) of the role of reflexivity in modernity. Following on from this is an introduction to Farrugia's (2013) *reflexive subjectivities* theory; the theoretical framework of the analysis of reflexivity in this thesis. Included in this section are critiques by Farrugia's (2013) of Giddens and Beck's ontological and epistemological approaches to reflexivity in modernity.

Reflexivity in Modernity – Theoretical Discussions

Theorisations by Giddens (1990,1991) of the macro-social view of reflexive modernity emphasises that the ability to reflexively monitor action was being called upon more frequently from the early 20th Century due to the loss of routinised pathways of action. Giddens (1990) clarifies that this loss of routinised action is emphasised by four characteristics of modernity, discussed in terms of, modernity's unique social institutions, a tendency to separate time and space, the disembedding of social systems, and the reflexive ordering, and re-ordering, of social relations.

Giddens' analyses are usually coupled with those of Beck (1992), because of their allied accounts of selfhood and the centrality of reflexivity in the modern individual (Adams, 2003). However, Farrugia (2013) points out that, a difference between Beck and Giddens' theorisations, lies in Beck's (1992) concept of the 'implications of reflexivity for contemporary subjects' (Farrugia, 2013, p.3). Farrugia (2013) discusses this difference as, for Beck; 'reflexive subjectivities are compelled by structural fragmentation and insecurity' (p.4) due to the breaking down of traditional material structures of gendered division of labour and class that underpinned modes of production (Farrugia, 2013). Beck (1992) argues that, structural fragmentation, brought about by the capitalist paradigm of individualisation, creates the conditions for reflexive subjectivities because there is no other way to survive it. As Farrugia (2013) points out, when looked at this way, reflexivity is not a personal concern, as it is with Giddens, but a 'macro-social characteristic of contemporary modern societies' (p.4).

Differing views in defining reflexivity in modernity lie in assumptions about the extent of agential power. Giddens (1991) highlights that, since traditional orientations cannot be used to build the 'self' within a known context, 'the altered self has to be explored and constructed as part of a reflexive process of connecting personal and social change' (p.33), providing subjects unforeseen levels of 'personal sovereignty' (Farrugia, 2013,p.4). Personal sovereignty is demonstrated by an uneven uptake of knowledge by subjects due to their differing value sets. Giddens (1991) argues that subjects then demonstrate differing extents of uptake, and articulations, of knowledge and its incorporation into practice.

However, Farrugia (2013) disputes Giddens' (1990) point that sovereign self-creation is assumed to be part of reflexive processes. Farrugia (2013), and Beck (1992), emphasise that, despite the increase in reflexivity in modern subjects' actions, this is not by choice, but due to the dynamics created by capitalism. The following section focuses on the broader role of reflexivity in modernity from a theoretical viewpoint and where Farrugia's (2013) arguments for a subjective reflexivity thesis are centred. Farrugia's (2013) arguments are coupled with those of sociologist Adams (2003, 2006) who also supports critiques of Giddens (1990, 1991).

It is important in a case by case basis, to ascertain if reflexivity is by agential conscious thought or an unconscious routinised action for survival or a combination of dynamics. If a politics and ideology is constructed using knowledge sources embedded with a paradigm of neo-liberal relations, as is the case of defensive approaches to localisation, then it is unsurprising that the resulting initiative, action and relation are another form of the hegemonic structure. Isolating information sources that result in a development of 'unreflexive' discourses of 'place' can highlight a requirement for new knowledge sources based on new modes of governance and structural relations. New sources of knowledge can then be developed to inform new ways of constructing alternative systems.

Reflexivity in modernity is an interest in academia since it plays a role in 'understanding the modern relationship between subjectivities and social structures' (Farrugia, 2013, p.10). At the subjective level, reflexive use of knowledge is arguably undertaken to construct meaning and personal politics leading to the practice, presentation, of politics in public. Modern subjectivities reflect the hegemonic structures of the social order, but so to can they reflect less dominant but pertinent changes in the social order. In the context of food provisioning, reflexive subjectivities can not only reflect the neo-liberal hegemonic structure of the GFS, but also the growing social justice based politics of the food sovereignty movement. As Miele (2006) points out, there is a mixing of routinised, unconscious embedded values, and reflexive, consciously re-thought values, underpinning alternative food provisioning practices. Harvey and Williams (1995) highlighted that new politics must be grounded in local particularisms but should have universal purchase by being reflexively integrated with abstractions at the global scale to be transformative.

The theory of *reflexive subjectivity*, proposed by sociologist David Farrugia (2013), is suited to understanding what is happening in the realm of alternative food production and

distribution. The following section discusses the outline and application of this theory to the construction of discourses of the 'local place' underpinning AFIs.

Theorising reflexive subjectivities and discourses of the 'local place'

Scholars focused on the role of reflexivity in modernity are attempting to make their arguments free of the 'contradictory search for sovereign self- creation that has so far driven this literature' (Farrugia, 2013, p.2; Adams, 2006). Farrugia's (2013) reasoning for this stance:

> In modernity, embodied dispositions continue to provide the principle for competence at social games, but the practical engagement with the social worlds which both creates and activates these dispositions must be driven by personal reflexivity due to the complex conditions that structure biographies (p.12).

He questions the assumption in the literature that 'reflexivity is (or should be) a form of emancipatory practice that leads to greater human freedom' by unleashing capacities for self- creation (p.2). He proposes that reflexivity at the micro-scale of the subject is an analytical lens through which modernity can be understood. Farrugia (2013) argues this can be done because:

> The concept of reflexivity captures the operation of macro-social processes and micro-level practices of identity work, making reflexive subjectivities part of a broader terrain of changes in the structures, cultures, and subjectivities that make up modernity (p.13).

From this reasoning, since reflexive subjectivities capture the operations of macro-social processes, it can be concluded that a subject's decisions are limited by the contextual norms in which they live. Scholars argue that success in the aim of alternative food initiatives is modified by how initiatives are conceptualised, and realised, by community garden convenors, members and backyard food producers. the theoretical framework of reflexive subjectivity in the study of community and backyard food production in Brisbane, supports the arguments by Block, Chavez, Allen and Ramirez (2012), Hinrichs (2003), Fairbairn (2012), Alkon and Mares (2012), and Dupuis and Goodman (2005), that AFI practitioners are sometimes embedding the hegemonic structure of the neo-liberal based

GFS resulting in a non-transformative food system. Harvey and Williams (1995) clarify the difficulty of constructing new local politics since ‘theoretical practice must be constructed as a continuous dialectical’ between the lived lives at localised positions and a critical detachment to ‘formulate global ambitions’ (p.96)

Critiques of the Reflexive Modernity Thesis

For scholars over the last two decades, the reflexivity thesis still warrants investigation. There is some disagreement to the theses discussed in the previous section, specifically in their assumptions and applications to contemporary modern experiences. From critiques, different concepts of the reflexivity thesis have emerged and the following discussion highlights ontological critiques by Farrugia (2013) and Adams (2003, 2006) of Giddens (1990, 1991).

An ontological disagreement – Subjective power vs structure

Farrugia’s (2013) ontological disagreement with Giddens’ reflexivity theories begins with definitions of reflexivity. Farrugia (2013) emphasises that there is a limitation to the common, individualistic definition of reflexivity, in its equating to ‘unfettered agency, cognitive deliberation and critical rationality’ (p.5). Giddens (1990, 1991) is the main target of critics who argue against Giddens’ emphasis on ignoring structural processes that continue to shape modern self-authorship projects. Giddens is interpreted as emphasising a homogenous modernity where ‘material or discursive power relationships become invisible’ (Farrugia, 2013, p.5). For example, Adams’ (2003) critique is in the use of the word ‘project’ and its implication of their being a ‘centred subject at the helm, overseeing a purposeful future trajectory’ (Adams, 2003, p.224). In reflecting upon the authenticity of the ‘liberated reflexivity’ of the individual, Adams (2003) takes a closer look at the ways that reflexivity is ‘embedded and socialised’ in ways that are easily overlooked. Adams (2003) and Farrugia (2013) link their critique to the cultural context, framed by ‘‘neo-liberal’ discourses’, in which the reflexivity theory was developed. This discourse erroneously emphasises modernist individuals as taking a rational, unbounded course of construction of the self. Part of the effect of constructing reflexivity theory in an era of neo-liberalism, is the emphasis that modern individuals are disembedded from traditional norms.

Discussion and Conclusion

Farrugia's (2013) conceptualisation of reflexive subjectivities as contextually reflective of the 'relationship between subjectivity and the rest of the social world' (Farrugia, 2013, p.10); allowing for a move from 'one level of abstraction-attached to place- to another level of abstraction capable of reaching out across space' (Allen et al., 2003, p.62). This theorisation forms the framework for this thesis that examines the relations of community and backyard urban food gardeners to their site of food production; their community and the global food system. Farrugia's (2013) theorisation of contemporary subjective reflexivity resonates with the literature on alternative food initiatives and networks examined in Chapter Two.

Alternative food initiatives and networks are developed in opposition to the dynamics of the global food system. But, the literature highlighted the differing manifestations of initiatives and networks over the developed world. Farrugia's (2013) conclusion that 'reflexive subjectivities are part of the broader terrain of structures, cultures, and subjectivities that make up modernity' can be attributed to the multiple conceptual expressions of AFIs. Farrugia (2013) sees the interplay of the public and private as a given. Harvey (1996) also highlights that in the context of seeking change to the structures that are dominant in everyday life; individuals must acknowledge the interplay of the private and public. Without this acknowledgement, the broader particularities in which we live are carried forward into new systems if they go unresolved and unexamined.

Farrugia's (2013) conceptualisation of reflexivity in modernity also resonates with Amin's (2003) exploration of constructions of 'place', discussed in Chapter Two. Amin's (2003) claim that 'place' should be viewed as juxtapositions of old and new issues and traditions, and local and global values and knowledge, is conceptually of a similar view that Farrugia (2013) wants applied to the concept of reflexive subjectivities. For Farrugia (2013), the concept of reflexivity captures 'the operation of macro-social processes and micro-level practices of identity work. Focusing the lens of subjective reflexivity to answer questions proposed by this thesis, can contribute to the narrative that explores how AFIs are determined by value sets that are embedded with concepts about social position and traditional practises. This approach supports the literature that despite some AFI

practitioners' critiques of the global food system, agents are unconsciously embedding neo-liberal market based structural paradigms in localised AFIs.

The uptake of this 'new' knowledge in the developed world is arguably expressed in a transitory politics melding unreflexive and reflexive discourses of the local place. This dynamic can be mobilised by the conscious subjective authorship of the self. Embedding AFIs with discursive emphasis based on incoming knowledge of local and global events enables food movements to construct food systems that are flexible enough to be made and re-made. Local food initiatives will reflect the reality of the social order thusly able to weather challenges of co-option by neo-liberal paradigms.

The following chapter examines the methodology undertaken to achieve the analytical aims of this thesis.

CHAPTER FOUR: THE METHODOLOGICAL APPROACH

This chapter reports on the methodological approach taken in this study that asks: ‘Are urban food gardeners in Brisbane, Australia merely growing food or reflexively constructing the local place as a response to a dysfunctional food system?’ In approaching this question, urban food gardeners’ motivations, legitimisations and conceptualisations of their community and backyard gardening initiatives needs to be identified. In order to achieve an understanding, *Verstehen*, of the subjective world views that shaped food provisioning actions of 19 urban food gardeners (Sumner, 2006; Bannister, 2003). *Verstehen*, as emphasised by Weber (1949), should be approached in a non-value laden way (Sumner, 2006) so as to avoid unacknowledged biases imposed by the researcher. Hence, in this chapter, the researcher will be referred to in the first person from this point so as to achieve a degree of transparency and reflexivity in the interpretive process.

To engage with the alternative food system strategy of nine community urban food gardeners and 10 backyard urban food gardeners in Brisbane, I have used a qualitative methodology, specifically, a discursive analytic approach, in order to understand the meaning of the social action of urban food growing (Schwandt, 2000). In a dialogue with participants in this study, via semi-structured interviews, I also make visible their perspectives and attitudes towards the GFS and their methods of practicing alternative food initiatives (AFIs). The literature highlighted in Chapter Two, empirically argued that the politics underlying AFIs in these countries, is relevant to their capacity to form a food system that can challenge the corporatised global food system. However, there is a gap in the literature when it comes to understanding the motivations and conceptualisations forming the personal politics of AFIs in Australian cities.

To interpret and describe the politics and practices underpinning findings in Brisbane, an adaptive theory approach was used. Adaptive theory assumes that the complex social world is formed ‘from the multifarious interconnections between agency and structure’ (Layder, 1998, p.142).This chapter includes more detailed discussions of discourse analysis and adaptive theory.

Some of the literature discussed in Chapter Two focused on the ‘alternativeness’ of AFIs that are not underpinned by a food sovereignty framework. This critique has led researchers to exploring the relation between constructions of local politics and the uptake

of neo-liberal based discourses by urban food gardeners. Theoretical discussions of reflexivity in Chapter Three explored the relationship between the structure of the corporatised global food system and the discursive emphasis underpinning AFIs. The extent of reflexivity by agents, discerned by their discursive emphasis, is the tool to access how the reality of urban food production has been subjectively constructed. To acknowledge the negotiations involved in the construction of AFIs, specifically that of the ideological and geographical 'local', the epistemological approach taken by this research is that of constructivist-interpretivism. A social constructivist epistemological approach acknowledges that there are disputes and negotiations by agents involved in creations of social practices.

The following section outlines the details of the epistemological approach taken in this thesis. Following on from this, the purposive and snowballing techniques I employed to identify the data sources are reported. The discussion then turns to the analytical approach of discourse analysis and the transcription process that I undertook to highlight themes in interview texts.

Epistemological Approach – Social Constructivism and Interpretivism

A social constructivist epistemological approach recognises the extent to which solutions to social and environmental problems are end-products of a 'dynamic social process of definition, negotiation and legitimation' in public and private settings (Hannigan, 1995, p.31).This perspective assisted me in conceptualising what participants are doing, for example, are they practicing a defensive approach to localisation based on an unreflexive 'politics of place' (Goodman and Goodman, 2007; DuPuis and Goodman, 2005). However, as a proponent of social constructivism, I must ensure that my understanding of this complex world of 'lived experience' is from the point of view of those who live it (Schwandt, 1994). To understand this world of meanings, one must interpret it. In this epistemological approach, I as the inquirer must acknowledge the 'process of meaning construction' and clarify how meanings are embedded in the language and actions of the social practice of alternative food provisioning (Schwandt, 1994, p.118).

Social Constructivism

The basis of the constructivist ontological view is that the human mind does not passively take up knowledge but forms abstractions and concepts from the knowledge within a social context (Schwandt, 2000; Gee, 2010; Bloor and Bloor, 2007). Giddens (1990) relates this 'given' to the role values play in preventing a direct grasp of knowledge. Using these two concepts, agents can be said to construct social practices based on 'outside' knowledge that has been re-imagined within a context of their values, practices and beliefs. Re-imagined knowledge is incorporated into *discourse*, which social constructivists argue is 'the material practice that constitutes representation and description' (Schwandt, 2000, p.197). The following section provides an example of the importance of discourses in normalising the perspectives of particular social groups.

The Importance of Discourse

Social constructivists are interested in how meaning is reproduced through discourse. This encompasses an understanding of the role played and strategies enacted by speech acts in a particular discourse. 'Utterances' or speech can strengthen or weaken representations of the truth (Schwandt, 2000, p.19; Layder, 1994; Lees, 2004). Utterances are not analysed for their cognitive workings but how they are used to build a rhetorical strategy in particular kinds of discourse. Discourses are a tool wielded in power relations amongst cohorts in the social world. Depending on the social position of the cohort and the discursive strategies used, a value system can become normalised across the social world. For example, as discussed in Chapter Two, neo-liberal political economic discourses based on capital accumulation and the commodification of food, favour trans-national corporate retailers and financial investors. As one aspect of the justification of this shift in the political economy, part of the discourse emphasises 'freedom' in the market as enabled by the removal of state restrictions (regulation) and spatial limits on financial institutions and relations.

Discourse analysis is used in this thesis to examine the utterances of community and backyard food producers. Specifically, the knowledge, values and cultural context of urban

food gardeners' discourses are examined to view their perception of the GFS and the discursive emphasis underpinning AFIs of community and backyard gardens. The following section is an overview of the aim of interpretivist theory, which is in line with the aim of this thesis.

Interpretivism

To be able to say I understand what a participant's action means, requires me to interpret, what the person is doing, achieving *Verstehen*. Interpretivism shares the constructivist aim of understanding the world of experience of the actor 'as it is lived, felt' and 'undergone' (Schwandt, 1994, p.125). Two traditions of thought also share the concept that human action is meaningful and can be understood in an objective manner (Schwandt, 1994). Reflexivity is a conceptual tool highlighted in this thesis, to reconstruct the meanings of the action of urban food provisioning in Brisbane. The point of looking at reflexivity has the ontological basis that there are varying extents of meaningful action. Chapter Three highlighted theories examining the varying extent of subjectivities involved in reflexivity and that there is no evenness in uptake, and practice, of new knowledge by a cohort. For example, marginalisation of an Other is not always intentional but as the findings in this thesis reveal, there are examples of an individual's values in opposition to those embedded in the practices of the overall cohort and vice versa.

My reason for choosing Brisbane as the focus of my study of urban agriculture was twofold. There is a gap in the literature on the subjective meanings, reflexive practices and motivations of urban food gardeners in Australian cities that needs to be addressed. From a more personal perspective, I am a new resident of this city and wanted to further my interest in alternative food initiatives in Brisbane.

Identifying Data Sources

In Chapter One, the Brisbane City Council area was identified as the study site for this research. The next stage of the research involved identifying participants who would generate data relevant to the aim of this study. It was necessary to identify particular participants. At the broadest level, participants were urban food gardeners within the

Brisbane City Council area. However, there are multiple types of urban food production initiatives in Brisbane such as; city farms, school food gardens, community gardens; heritage chicken breeding and market gardens (commercial vegetable gardens), with some urban dwellers growing food in pots on their balconies and in their backyards (Cityfood Gardeners, 2013). The question motivating the sampling approach I took was; 'Why would anyone who can afford to buy their food grow some of it themselves?' This is the cohort that, as highlighted in Chapter Two, is designing some AFIs in developed countries. Urban food growing movements, initiatives and projects are of particular interest in the international and Australian literature since urban dwellers who can afford to buy food are choosing to grow some of their requirements themselves. Hence I chose community urban food gardeners as part of my focus in Brisbane. Also highlighted in Chapter Two, backyard food urban food gardeners are relatively under examined, especially in Brisbane. I chose to also focus on backyard urban food gardeners to render this cohort more visible and also because I am a backyard food grower myself.

I undertook purposive sampling for community urban food gardeners and backyard food urban food gardeners as described in the following section.

Purposive sampling

Community gardens in Brisbane

As a rapidly urbanising city in South East Queensland the Brisbane City Council (BCC) area has 33 registered community gardens (Brisbane City, 2013). Gardens also include two city farms and three school kitchen gardens which are not part of this study. Of the remaining 25 gardens relevant to this study, purposive sampling was undertaken to locate nine community urban food gardeners who were over 18, male or female, from three different community gardens. Three community gardens were chosen under three criteria: i) The garden was started and managed by the community of that suburb or neighboring suburbs; ii) The aim of the garden was not for commercial production e.g. city farms and market gardens and; iii) The locations of gardens were in three different suburbs to avoid geographical clustering.

Backyard urban food gardeners in Brisbane

Identifying 10 backyard urban food gardeners within the BCC area consisted of locating five who were part of a formal food network and five who are not part of any formal food network. Criteria used to identify backyarders were;

1. Anyone over 18
2. Currently growing at least herbs and vegetables in garden beds (can include potted plants)

The sampling criteria of participation in a formal food network enabled me to avoid a clustering of backyarders under one group. I also reasoned that to seek out backyarders who are not part of a food network enabled me to access this invisible group of urban agriculturalists.

To identify five backyarders who were part of a formal network, purposive sampling was used resulting in backyard urban food gardeners, Bella, Mark and Ben. I reasoned that a good source of knowledge of the Brisbane food movement scene would be held with academics at the University of Queensland. It was known to me that some scholars were also working with the Australian Food Sovereignty Alliance (AFSA).

Derek was identified by contacting Permablitz Brisbane by email. Phillip was identified by undertaking 'snowballing' techniques (Layder, 1998) from a community garden member who was also part of Brisbane Organic Gardeners Inc. (BOGI).

Snowballing

To identify five backyard urban food gardeners, who are not part of formal groups like BOGI, Permablitz Brisbane or online groups, was deemed a challenge for this study but resulted in being completed within the field work time. Snowballing techniques were applied since this approach is used in qualitative studies to locate 'invisible' groups (Layder, 1998). Australian backyards are by nature private spaces hidden from view. Additionally by purposively seeking out backyard urban food gardeners who were not part of a group rendered potential participants invisible. Snowballing techniques were initiated

to locate participants by approaching two relatives of a friend, who are not well known to me. After answering ‘yes’ to whether they grow food in a garden bed, individuals answered ‘no’ to the following screening questions:

1. Are you a member of an urban food growing organisation, online or otherwise?

2. Are you a member of any social food movement, online or otherwise?

Backyarders who are not part of a formal food network were accessed via people known to me and snowballing techniques (see Table 1).

Table 1. Snowballing techniques to source five non-food networked backyard urban food gardeners (pseudonyms are applied).

BACKYARDER	RECOMMENDED BY:
TED	Relative of friend
BETH	Ex co-worker
SARAH	Neighborhood hairdresser
DEBRA	Snowballing from Beth through their affiliation with a non-food related group
JENNIFER	Co-worker of friend

Despite individuals being sourced through my social contacts, I had little previous social interaction with them. The snowballing technique used to identify Debra was via her

mutual interest with Beth in creative arts business networks. No exchange of food grown, seeds or food growing information is conducted between individuals to qualify them being part of a food network with each other or any others.

The typology of the resulting group of 19 urban agriculturists is outlined in Table 2. Urban food gardeners' were of European descent, middle class, male and female between the ages of 25 to75 years with the majority of community urban food gardeners in the 55 to 60 and the majority of backyarder in 35 to 40 age range. I discerned this from the conversation since I did not ask any gardener their age only if they were over 18. All urban food gardeners except Cathy, a community gardener, were tertiary educated. Backyarders Heather, Bella, Mark, Ben and Jennifer had no children. Table 2 shows that most urban food gardeners were either in part-time employment or retired. I did not directly ask if urban food gardeners were in employment but this information emerged due to the semi-structured format of the interview. The average socio-economic status of participants ranged from high to medium, an assessment that was gleaned from perusal of the online statistics database compiled by the Australian Bureau of Statistics (ABS, 2010).

Table 2. Typology of 10 backyard urban food gardeners and nine community urban food gardeners in Brisbane, Australia (pseudonyms are applied).

PARTICIPANT	AGE RANGE	SITE AREA	OCCUPATION	JOB STATUS - FT/PT/UE	EDUCATION
BACKYARD URBAN FOOD GARDENERS					
FORMAL FOOD NETWORK					
BELLA	25 - 30	WEST END	PhD Student	PT	TERTIARY

MARK	35 - 40	ANNERLEY	PhD Student	PT	TERTIARY
BEN	35 - 40	WEST END	Sustainability advisory business owner	PT	TERTIARY
DEREK	35 - 40	NEW FARM	Sustainable building engineer	UE	TERTIARY
PHILLIP	55 - 60	TOOWONG	Sustainable garden design business owner Resigned - Public service/geologist	PT	TERTIARY
NO FOOD NETWORK					
TED	35 - 40	THE GRANGE	Documentary maker	FT	TERTIARY

BETH	35 - 40	TARRAGINDI	Jewelry artist. Resigned - Public service/ecologist	UE	TERTIARY
SARAH	60 - 65	ASHGROVE	ESL Teacher	PT	TERTIARY
DEBRA	25 - 35	KHOLO	Artist/Business owner	FT	TERTIARY
JENNIFER	40 - 45	SANDGATE	Public service/ecologist	FT	TERTIARY
COMMUNITY GARDEN URBAN FOOD GARDENERS					
JOHN	50 - 55	COMMUNITY	Physiotherapist	PT	TERTIARY

SHARON	55 - 60	GARDEN 1 GRACEVILLE	Retired - Hospitality manager	UE	TERTIARY
MARY	60 - 65		Nurse	PT	TERTIARY
HEATHER	25 - 30	COMMUNITY GARDEN 2 TOOWONG	Social worker	FT	TERTIARY
CATHY	55 - 60		Retired - Grazier	UE	SECONDARY
ANNE	55 - 60		Administrator	PT	TERTIARY
BEVERLY	60 - 65	COMMUNITY GARDEN 3 MT GRAVATT EAST	Retired - Teacher	UE	TERTIARY
RACHEL	70 - 75		Retired - Nurse	UE	TERTIARY

ANITA	35 - 40		Sustainable architect	PT	TERTIARY

Ethics and managing contact

Ethical clearance for this study was granted on the 4th October 2012 under clearance number RHD6/2012 by SSERP.

Managing contact with Community Urban food gardeners

Initial contact with members of community gardens was via email to the contact person listed on the Brisbane City Council (BCC) website for five gardens representing suburbs in high and medium ranked areas. Each email outlined the research and the main points of the interview process and the request for contact with any member, not necessarily the convenors, to take part in a research interview. Also requested was the preference for the interview to be conducted on the site of the garden and photos would be taken of the garden if permission was granted. The information sheet, cleared by The University of Queensland School of Social Science Ethical Review Panel SSERP, was also attached to the email for their records (see Appendix A). One week later, semi- structured interviews of 14 questions were audio recorded with John (Community Garden 1) and Anne (Community Garden 2) on the site of the garden. From two urban food gardeners, two more interviewees each were suggested. A consent form (Appendix C) was taken to every interview. After reading through the information sheet, I asked again if participants still wanted to take part in the study and to sign the consent form (Appendix C).Three urban food gardeners from Community Garden 1 and three urban food gardeners from Community Garden 2 (Table 1) totaled 5 hours and 55 minutes of collected and transcribed interviews.

Concurrently as interview times were being scheduled for other urban food gardeners, investigation for a relevant third garden was undertaken. The final community garden, Community Garden 3, to be enrolled in the study was identified after two emails were sent out to the suburbs of Runcorn and Mount Gravatt East in South Brisbane with the intention to achieve a more spatially even spread of urban food gardeners. The convener of the community garden at Runcorn replied that details of interested parties will be sent to me. No replies were received. Beverly, the secretary of the Mount Gravatt East garden replied and offered to be interviewed herself as she was also an active food grower at the garden. ‘Snowballing’ techniques, as per recommendations by Beverly, initiated contact with two

other urban food gardeners. The last two interviews concluded the field work on the 3rd June 2013. Interviews with urban food gardeners from Community Garden 3 totaled, 3 hours 17 minutes.

Managing contact with Backyard Urban food gardeners

All urban food gardeners were contacted via email acknowledging the source of the recommendation; outlining the research background, outlining a preference for the interview to be conducted on the site of the garden and requesting photos be taken of their garden if permission was granted. The information sheet, cleared by the SSERP, was also attached to the email for their records (see Appendix A). Similar to the approach taken for community urban food gardeners, a consent form (Appendix C) was taken to every interview. After reading through the information sheet, I also asked participants if they still wanted to take part in the study. As with community urban food gardeners, all backyard urban food gardeners visited consented and signed the form in Appendix C. In total, 4 hours and 22 minutes of interviews were recorded and transcribed for three non-networked backyarders. Interviews with three networked backyarders produced 4 hours and 33 minutes of recorded material.

In total, 18 hours and 1 minute of recorded material was transcribed and analysed for this study.

Data Generation – Semi-structured Interviews

Given the approach of this thesis is to discern the discursive emphasis by community and backyard gardeners in discourses underpinning the local place, interviews were determined as the most appropriate method to generate data. A semi-structured approach was taken in that my personal biases and assumptions did not generate closed questions and lead participants' answers. The research design also included a pilot interview with a highly productive backyarder, Linda (pseudonym is applied). I approached Linda because of her knowledge of the alternative food initiatives community gardening and backyard gardening networks in Brisbane and she is also a backyard food producer. Linda's interview was composed of 15 trial questions and lasted 1.5 hours. I asked Linda after

each question, if it were too closed or phrased unclearly. This approach assisted me in ensuring I got the information needed to answer three sub-questions broached by this study and resulted in the schematic in Appendix B that generated the final 14 questions.

Methodological Approach

Adaptive Theory

The adaptive theory approach aims to close the gap between general theory–testing and theory generating approaches to 'harness the potentially productive interplay between them' (Layder, 1998, p.5). Pre-existing theories and sensitizing concepts tested in this study include subjective reflexivity and a defensive approach to localisation; information on which is collected by the literature review and discourse analysis discussed above. Theory generating will enable the research to be explanatory rather than merely descriptive (Layder, 1998) and will involve filtering data from semi-structured interviews with urban food gardeners, observational field notes and discourse to refute or support concepts of a defensive approach to localism and subjective reflexivity thesis as well as identify emerging concepts and themes. It should be pointed out that there is no assumption on my part that the politics of defensive approach to localisation is part of AFI discourses in Brisbane. Even if marginalisation of some social groups was discovered in Brisbane, the discourse of defensive approaches to localisation may not be involved. All that could be said with certainty is that further scrutiny, beyond the scope of this study, would be required. My goal is not to conflate definitions and dynamics from other countries and situations with what is happening in Brisbane. As my findings will show, the concept of the local place can vary amongst individuals in regards to what is the local and what is the role of urban food provisioning in the community.

Analytical Approach - Discourse Analysis

Through social discourses (language, thought and symbolic representation) the subject is a social construction positioned in a field of power relations and within particular sets of practices (Layder, 1994, p. 95). Discourse analysis in this research will critique and

thematise beliefs, norms and values expressed by urban food gardeners (Crotty, 1998) expressed in dialogue, by semi- structured interviews; community garden documents and websites to achieve an understanding of the subjective meanings of the action of growing food in the urban setting. This approach allows conceptualisations of what practitioners are doing and what it means with regards to the food sovereignty and the call for transformation of the food system for example, are they practicing a defensive approach to localisation, limiting transformation of the food system. Discourses are a point of examination of studies of AFIs in the US and UK since through discourses, agents conceptualise their thought frameworks and appropriate others into the practice and development of alternative food initiatives and networks.

The Transcription Process

A transcript is by necessity ‘a partial representation of talk’ and transcribers' decisions about what to include and what to omit have practical and theoretical consequences (Johnstone, 2002, p.21). I chose what text to keep after the pre-coding process. I classified sections under extant concepts (core themes), e.g. motivations, food sovereignty and any other themes that emerged. Satellite (secondary themes) codes of extant concepts e.g. defensive approaches to localisation and emerging concepts were also be used in the classification process. Appendix B is an overview of my adaptive theory approach. The use of extant concepts and theories to generate open questions and also highlights my process of searching for new concepts (Layder, 1998).

The following section highlights my methodology for analysing interviews to uncover themes in urban food gardeners’ discourses.

Analysis of Interviews

The data analysis involved the manual transcription of semi-structured interviews using qualitative program NVIVO and manually coding and categorising of sections of the text, based on themes. My first step in the analysis was to go through each transcript and note possible themes of a re-connection strategy and analytical categories of reflexivity. I used the qualitative analysis software NVIVO to manage the recordings and transcripts. I also

used the software to clarify my manually processed categories (pre-coding) and to check for possible additional codes. I used features of NVIVO for occurrence of the words 'local' and 'community'. I also used the coding tree to get a visual representation of how the categories were linked to each other.

Interpretation of the Data

In discourse analysis, the researcher abandons the view that there is one accurate version of urban food gardeners' beliefs and actions (Talja, 1999). The object of the talk, urban food production, was not an abstract concept with standardized parameters that everyone saw in the same way. This was identified by the interview question ''*what term would you use to describe what you are doing*?'' as the first question in the interview. This question revealed urban food gardeners' versions of their personal food production and consumption practices in their discussion of their experiences and evaluations of growing their own food. With regards to the commercial food system, the question *how do you view the current commercial model of food supply?* is asked in the latter half of the interview. This question revealed urban food gardeners' experiences of and evaluation of the global food system. Revelations helped me understand urban food gardeners' ideologies and values with regards to all systems of food provisioning. The 'truth' about food provisioning both alternative and conventional, was seen to be supported by different 'facts'. 'Facts', knowledge, were sourced from identifiable discursive resources and particular popular repertoires.

Generalisability

As a rule, interpretivist sociology rejects generalisations. Since the stance of interpretivism is that different meanings may be attached to the same actions or vice versa, generalisations are seen as impossible (Payne & Williams, 2005). Similarly for social constructivists, 'similarities of individual perspectives, takes those agreements as only time and context specific' (Mayring, 2007, p.10). But Payne and Williams (2005) critique this 'simplistic' view and argue for an intermediate type of limited generalizations, '*moderatum* generalisations' (p.296).

The aim of this study is not to provide a generalised statement about the local or the politics underlying it in Australia but, to point out the differing and shared concepts of the local place amongst AFIs in the developed world.

Discussion and Conclusion

In this chapter, I have described the research process of investigating the discourses underpinning the social practice of alternative food provisioning in Brisbane, Australia. The epistemological grounding for this study is that of social constructivism with an interpretivist approach. This approach was taken so as to explore the discourses for 10 backyard urban food gardeners and nine community urban food gardeners in order to highlight the differing conceptualisations of the 'local place'. Reflexivity was also investigated so as to explore the extent of the conscious and unconscious uptake of neo-liberal and 'new knowledge' based discourses.

To achieve this, I conducted and audio recorded 19, 1 hour semi-structured interviews between December 2012 and June 2013. Interviewees were men and women who were purposively sampled as regular food producers either in their backyard or in a community garden. I have acknowledged the ethics concerned in this study by being transparent with interviewees on what this research is about, respecting their wish to not record certain points and using pseudonyms to protect the identity of urban food gardeners who so willingly gave their time to talk to me.

I transcribed interviews manually and grouped sections of the text, under extant descriptive categories (pre-coded) of reflexive, local, vision, political, apolitical. At the next stage of analysis, the coding process involved grouping pre-coded texts under extant theories and themes such as; creating community links and defensive approaches to localisation. I also highlighted new descriptors and themes, for example repairing the metabolic rift, as per the adaptive theory approach.

CHAPTER FIVE: GROWING FOOD - MOTIVATIONS AND LEGITIMISATIONS

The literature examined in Chapter Two established that the current global food system (GFS) is underpinned by a neo-liberal economic narrative that positions food as a source of capitalist accumulation best controlled by corporate global trade relations and neo-liberal based business practices (Lawrence & McMichael, 2012; Rivera–Ferre, 2012; Patel, 2007). Impacts on consumers and producers in developed countries were also discussed in Chapter Two.

With impacts and structural relations of the GFS in mind, the findings reported in this chapter addresses research sub-question one: What are Brisbane-based community and backyard gardeners' motivations and legitimisations for growing and sourcing their food? Participants in this study, self-identified as 'gardeners' and will be referred to as such for the rest of the thesis.

Following this introduction, the discussion begins with gardeners' motivations to grow their own food. Also discussed are gardeners' motivations to source some of their food requirements from small-scale food retailers, farmers' markets and box schemes. Gardeners' motivations are as follows:

1) Self-reliance; and

2) Trust in 'local' retailers.

The chapter then turns to gardeners' legitimisations of their food sources in a discourse of a dysfunctional global food system. Gardeners' discursive emphasis was on the following three issues with regard to the GFS:

i) the use of biochemicals and mechanisation in industrial agriculture;

ii) corporate control of producers and the food retail sector – Woolworths and Coles; and

iii) lack of availability of quality produce at the two main food retailers in Queensland- Woolworths and Coles.

Also included in this section is a reference to Marx's concept of the disruption of the socio-ecological relationship between society and nature, termed metabolic rift, as discussed by

Wittman (2009) and McClintock (2010). Analysis and interpretations of urban food gardeners' issues with the GFS, as reflected in the food system in Queensland, are guided by Farrugia's (2013) subjective reflexivity thesis. The discussion also includes the placement of gardeners' discourses within the broader context of Marx's conceptualisation of the metabolic rift, as applied by Wittman (2009, 2011) and McClintock (2010) to analyses of modern food systems.

Within this chapter it is established that gardeners' reflexive use of knowledge regarding the limitations of the hegemonic food system in Queensland compelled some to become self-reliant. Self-reliance was viewed by many interviewees as the only solution to the wider problems they perceived in the food system, and they pursued self-reliance through a mix of strategies. While participants grew their own food, they also sourced what they could not grow themselves from small-scale food retailers within their suburb, from farmers' markets outside their suburb, and through box schemes. The latter schemes involve a wider geographical area, as producers and gardeners are connected across a four hour driving radius of Brisbane.

The discussion turns to gardeners' first motivation for growing their own food, that of self-reliance.

Self-reliance

The 19 urban food gardeners interviewed for this thesis discussed their acts of domestic food production as those based on 'self-reliance', a term used by some urban food gardeners. Other terms of 'food secure' or 'living sustainably' were also used and have been interpreted as meaning self-reliance.

For urban food gardeners, self-reliance meant they were able to 'look after themselves'. This element of identity building was clearly articulated by backyarder Mark. Mark's answer to the question *what do you see are the benefits of urban food growing*, involved concepts of self-reliance and individual independence:

> I think it creates resilience, and it creates a self-reliance that I think is essential in today. Everyone is so dependent on people providing us with food, providing us with welfare, providing us with everything. I think it's the ability to take responsibility

> for your own being is fantastic and I think it’s very important. And that’s why I say I’ve got pride in what I grow. It’s because I have self-reliance. If I got no money this week, short of rent, I wouldn’t go hungry, you know, I would be able to eat.

Mark’s reliance on himself gave him a feeling of well-being and self-esteem. Community Sharon, who is a member of Garden 1, stated that she had to “think outside the box” if she was to achieve her purpose of reducing her reliance on supermarkets. Due to her inability to get enough of her food from the garden, Sharon had to find other ways to become self-sufficient:

> A little thought on my part when I started reading and so on and so forth, just cogitating on the concept, I started to see what I thought was my really tight land space, started to see, it might be tight, but I think I can work within this constraint.

This belief in the persona seen in the phrase ‘I can work within this constraint’ was demonstrated by most urban food gardeners. Many articulated constraints as either ecological (soil and pests), as involving group governance barriers, or stemming from local government barriers.

For backyarders Ted and Beth, ability and time restrictions imposed on them by their children limited the realisation of the “grand vision” (Ted) of self-reliance. Beth explained that she wanted to get more adept at “succession planting” whereby she would be able to keep a ‘continuity of supply’ of a variety of foods at any given time:

> I’d really like to have one of those gardens you could tinker at and go and find five carrots and a head of broccoli and wow cool lets have stir fry to get a bit more of it being less like five tomatoes plants and two rows of carrots and being a bit more something you interacted with more regularly but I haven’t been able to develop that at the moment.

Beth was one of six backyard urban food gardeners who were not able to provide most of their food from the garden, but like her, they all had plans to eventually become ’food secure’. For example, backyarder Bella hand-milled her own flour and her vision to feel more ‘food secure’ was to find a good farmer;

> Who would bulk supply me with wheat berries. When I have wheat berries and I can supply myself with three months’ worth of food that’s just stored in there, that’s

> when I [will] feel food secure. Also, when I have seeds, heirloom varieties saved from year to year and season to season, that's when I [will] feel food secure.

For Mark and three other backyarders- Derek, Jennifer and Debra- the initial aim of domestic food production was to achieve self-reliance in some foods. At the time of the interviews, Mark, Derek, Jennifer and Debra produced 90% of their household vegetable and herbs. The dream of self-reliance was also a way urban food gardeners could be sure that they did not rely on corporatised supermarkets, Woolworths and Coles, for food. This latter point was vehemently articulated by Debra who for a short time could not tend her garden and had to shop at a supermarket:

> I had to buy my food from the supermarket, I hated it. The quality is terrible. I can't afford to buy all my food from organic shops; I don't have that kind of money. Even though I'd love to be able to do that, I can't afford to do that. So, I knew that some of the food that I was eating wasn't organic and that kind of irritated me. [It was] frustrating to have to buy something from the supermarket knowing you can grow it at home and grow it better at home.

What is important to note from this text is that Debra, and most other urban food gardeners, perceived that they and other urban gardeners could grow better, fresher food than the industrial food system.

As discussed in Chapter Three, reflexive subjectivities in modernity reflect not only hegemonic social structures, but also emerging changes to the prevailing social order. The dialectic of control and acceptance imposed by the natural world on urban food gardeners was evaluated as worth the "fiddly coordination" (Sharon) and "heartbreak" (Bella) involved in food production using ecologically based methods. By this process, urban food gardeners are repairing the metabolic rift. Urban food gardeners found they reaped more of a reward, both material and psychological, when they based their growing systems on an understanding of their site specific issues. Aspects of the rewards of growing some of their own food, can be theorised as embodying a practice in survival and independence, which for urban food gardeners gave the act of growing food "purpose"(Derek) and "meaning"(Derek and Jennifer).

The following section discusses the finding that gardeners, motivated by trust, sourced their remaining food requirements from small-scale retailers and farmers' markets in their

or neighbouring suburbs, and box schemes linking rural and peri urban producers within a four hour driving radius of Brisbane.

Trust in local retailers

Findings reported in this section include the frequent use of the word 'local' by gardeners. To clarify, the word local in this section meant that retailers were situated in the suburb and were not part of a transnational supermarket chain. Where the food was produced was also considered local if producers were small scale farmers within Australia. For example, Food Connect, the local box scheme used by many gardeners, sources food from small scale farmers within a five hour radius of Brisbane.

Importantly, the definition of local in this section is not only about geography but also implies a functionality of 'knowing'. For example, the coordinator of Food Connect is evaluated by John, of Community Garden 1, as an ''inspirational person'' for organising the network. The 'knowing', in this case, is of the system's organiser, who has also conducted domestic food production workshops at Community Garden1. This individual is also part of two other interviewees' personal networks. Knowing in the context of the local, was not only about the sites of food production but about the people who are part of local food systems, for example, neighborhood butchers and a TAFE horticulture teacher. Urban food gardeners' emphasis on the importance of 'knowing' individuals in the food system led to interpretations that local retailers and teachers were accessible and were a viable alternative to the 'faceless' GFS (O'Hara & Stagl, 2001; Kirwan, 2004; Johnston, Biro, & MacKendrick, 2009).

Rachel, a member of Community Garden 3, upheld the importance of being able to have face-to-face contact with her food providers. Growing up in the 1950s, Rachel explained that she was able to talk to butchers, milkmen and greengrocers who delivered food to her family home at least once a week. Today, Rachel accesses her foods from neighbourhood butchers, greengrocers and statewide organic box schemes, maintaining some of the 'personal' service she grew up with. From an experiential, subjective point of reference, Rachel chose to place trust in those she can have face-to-face interaction with, since a similar system supplied her with adequate food provisioning when she was growing up in

the 1950s. Rachel answered the question, “why you are choosing your local butcher over Woolworths, is it based on trust?” in the following way:

> Yes, because you know the butcher is only going to get good quality meat. If you buy chicken from him, it’s not caged chicken, they free range. I get the eggs from the greengrocer, he’s supposed to be free range, and you have to believe what you are told to a certain degree. You’ve got to have some trust until you find out otherwise.

Rachel was willing to take the butcher’s and the greengrocer’s word and “believe what you are told”.

Urban food gardeners - in their role as consumers- chose to place trust in small-scale retailers despite some retailers not being producers. The trust, on behalf of gardeners, was because gardeners were able to access information about products’ provenance.

The access point for gardeners is a frame of reference to the ‘place’ of where the food is grown and how. In embedding food supply systems in a place, information crucial for gardeners’ decision-making is knowable, visible. The findings discussed in this section reveal that conceptually, ‘local’ is linked to ‘knowing’ and is based on proximity but also trust in the knowledge being transmitted. Assessing who to trust involved a subjective reflexivity on the part of gardeners

In contrast, urban food gardeners have lost their trust in the GFS because of the difficulty in placing trust in the inherent facelessness of longer distribution chains (Murdoch & Miele, 1999; Renting, Marsden & Banks, 2003). Commodity supply systems are now globalised and disembedded from a frame of reference, i.e. a place, rendering information crucial for decision-making invisible to the individual. This leads into the next section of the chapter that discusses gardeners’ discourse of a dysfunctional global food system which highlights recognition of the metabolic rift brought about by the GFS.

A Discourse of a Dysfunctional Global Food System – The Metabolic rift

Evaluations of the industrial agricultural sector by community and backyard urban food gardeners in Brisbane consist of concerns pertaining to:

i) the use of biochemicals and mechanisation in industrial agriculture;

ii) corporate control of producers and the food retail sector – Woolworths and Coles; and

iii) lack of availability of quality produce at the two main food retailers in Queensland, Woolworths and Coles.

The discussion begins with gardeners' issues with the application of biochemicals by Australian farmers in large scale agricultural operations.

i) Use of biochemicals and mechanisation in industrial agriculture

Use of biochemicals

Urban food gardeners in Brisbane assessed the addition of inorganic inputs at the cultivation stage of large scale agricultural farms as 'unnatural'. The term 'unnatural' was clarified to mean that food production in the industrial agricultural system in Australia is disconnected from natural systems and cycles. The discussion now turns to specific examples from gardeners' interview texts that highlight their concern.

Backyarder Phillip, from his position as a retired geologist, linked 'inorganic' inputs to food quality:

> Generally if it's grown to get into the supermarkets, you are looking at big parcels of product so it's all generally sort of monoculture, high inorganic fertiliser inputs. So the mineral the quality of the food we eat, the level of pesticides, we are just not getting high quality food out of the supermarket system.

Phillip interpreted food quality, as meaning high mineral content, which is reduced by inorganic fertilisers. He also assessed artificial fertiliser products sold at large-scale hardware stores, referenced Bunnings[1], as inefficient. Phillip's disdain for the lack of knowledge of ecological based growing principles, by Bunnings employees, is evident in

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[1] A household and hardware chain store across Australia.

his interview. Another backyarder, Ben, an environmental scientist, compared the low production outputs of the agricultural sector relative to those of smaller ‘natural’ systems:

> The large monocultures and the large scale farms, they talk about producing a lot of food. But, in terms of the actual amount of food that they produce, compared to small lot farmers who produce a multitude of variety of different food stuffs, they are not more productive at all. [Small farmers] are also producing with less inputs and the soil becomes improved using natural systems, instead of, a very pigeon-holed view of the world.

Other critiques of inorganic inputs were also articulated by two backyarders, Jennifer and Debra, both of whom referred to pesticides and fertilisers collectively as ‘’chemicals’’. Jennifer, an ecologist, referred to her interest in research about chemical ‘’run-off’’ into the Great Barrier Reef and river systems. Also, Debra, an artist, expressed her ‘’worry’’ regarding the degradation of the Australian environment by agricultural chemicals, specifically in terms of ‘’the water table and the soil’’.

Debra also linked chemicals to the use of hybrid seeds used in the industrial agricultural sector:

> I also don’t like at all the way we are going with big companies, I will quote Monsanto[2] because they are the demons of the food production world, the whole idea of growing certain types of food that requires these chemicals in order to grow. You can’t grow this stuff if you don’t pour these chemicals on it, and, the plants are designed to be sterile.

Debra’s garden supplied all her vegetable requirements and she considered herself a “passionate” grower. This gardener’s view of industrial crop cultivation practices mixed a science based discourse of soil and watertable degradation with abstract imagery, in the use of the words “the demons” to refer to Monsanto. Debra’s use of the word ‘the’

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[2] A publicly traded American multinational agrochemical and agricultural biotechnology corporation. In Australia, Monsanto serves cotton and the grains industries and; the horticultural industry through their vegetable seed product range.

designated the company as symbolic of excessive chemical use because of their retail dominance in supplying seeds dependent on chemical inputs.

Two backyarders also identified excessive chemical use by farmers as directly linked to the use of hybrid seeds in industrial agriculture systems. Hybrid seeds, produced and patented by multi-national chemical company Monsanto, are seeds dependent on inorganic pesticides and fertilisers to survive. Smaller scale food producers save seeds that have adapted to a particular site, and which are produced over many plant generations. This method of 'seed saving' is a traditional agrarian process in the conservation of vegetable types that have resistance to the vagaries of a particular growing site. All backyarders saved some seeds, but Bella was especially adamant about the role of seed saving in her conceptualisation of household food security. Bella sees seed availability as a 'resource constraint' in the future. She attributes this resource deficit to the marketing of hybrid seeds to urban food gardeners, and Monsanto's dominant role as the supplier of hybrid seeds for industrial agriculture.

All community urban food gardeners also reported saving their seeds with the goal of developing site-specific varieties. Sharon went further to reason that buying hybrid plant foods from Coles and Woolworths, "who don't respect saving heirloom varieties" were "not supporting sustainability". Sharon was also of the view that non-heirloom varieties are commonly used in agriculture. Non-heirloom varieties are not disease resistant and, as Sharon added:

> Farmers now just plant a crop and force feed it with nutrients…while it's growing they really saturate it in chemicals. They ensure a return for themselves, but there's nothing sustainable about what they are doing.

Use of terms like "force feed" denotes the unnatural practices of the industrial system which is all about getting a return. Seven other community urban food gardeners mentioned chemical use in the context of environmental degradation. For example, Mary did not want to be part of the industrial food system because "we have to think about salinity and artificial fertilisers all the time". Gardeners' critiques highlight that gardeners connect the commodification of food to environmental degradation. Along with Identifying the availability of non-hybrid seeds as a resource constraint, suggests that gardeners recognise the future consequences of the socio-ecological metabolic rift.

Mechanisation of food production

From a broad sociological view of the dynamics of modernity that frame the GFS, this discussion highlights the concept of disembedding social systems from the place of action. In the context of disconnection from the food system in Australia, three backyarders and three community urban food gardeners highlighted their perceptions of the use of mechanised food cultivation processes. For example, backyarders Derek and Ted talked of a faceless, "hands-off" approach to food cultivation and harvesting; concerns that were echoed by five other urban food gardeners.

Ted's concept of the 'story' of food production consists of being able to talk to famers to establish this story of food. He contrasted this story with that of food produced under the industrialised system, which for Ted was of the 'sci-fi' genre:

> You look at what larger retailers are doing, and in some ways I still find that interesting you know; mass farming and automated farming, these ideas of machinery testing and correcting the soil. You're all guided by GPS [global positioning system] just marching through these giant fields, there's something sci-fi about that that, intriguing. But then, it's somewhat soulless as well.

Ted's imaginative interpretations of large scale industrialised food production systems stemmed from his perspective as a documentary maker, as a teller of others' stories as well as his story as an eater. The farmer is involved in the mass farming process by operating the machinery but Ted does not see this as enabling the story-making process. Because a machine is in direct contact with the soil and food, he evaluates this story as soulless.

Backyarder, Ben, an environmental scientist, compared the outputs of the agricultural sector to those of smaller "natural" systems:

> The large monocultures and the large scale farms, they talk about producing a lot of food. But, in terms of the actual amount of food that they produce, compared to small lot farmers who produce a multitude of variety of different food stuffs, they are not more productive at all. [The small farmers] are also producing with less inputs and the soil becomes improved using natural systems, instead of, a very pigeon-holed view of the world.

Broad structural relations are the issue here in that capitalist economic paradigms disembed social systems from the environment, thus creating the 'metabolic rift' (Wittman, 2009; McClintock, 2010). Wittman (2009) and McClintock (2010) discuss Marx's (1975, 1976) conceptualisation of the metabolic rift as, a disruption of the dynamic and interdependent process linking society and nature. Marx proposes that the rift was brought about by changes in labour relations due to capitalism. A labour relation recognised by gardeners is revealed in their articulations of concerns with the agricultural sector's 'soulless', 'hands-off approach' to food cultivation and harvesting.

In summary, this section highlighted that urban food gardeners are motivated to grow their own food because of concerns with the use of biochemicals and artificial inputs in agricultural systems. Conceptually, the disruption of the closed loop system connecting society and the environment is disrupted by the force-feeding of crops with chemicals.

Additionally, some urban food gardeners evaluated the 'hands-off approach' of mechanized cultivation methods as 'soulless' processes which remove the farmer from the food. Broadly interpreted, gardeners' identification of the lack of knowledge about food on the part of the producer and themselves as consumers is recognition of the metabolic rift – a distance between society and nature. In the following section, community and backyard gardeners' discussions of power relations in the food system in Australia are reported.

ii) Corporate Control of Producers and the Food Retail Sector – Woolworths and Coles

In Australia, the control of market share by corporate food retailers, impacts farmers and food processing companies. Research on the coercive business practices by Woolworths and Coles has highlighted that retailers' 'concentrated market power' has 'allowed them to exert their will upon others in the supply chain' (Richards et al., 2012, p. 254).

In this study, all urban food gardeners made a reference to the "unethical" treatment of Australian farmers within their business relationship with the supermarket duopoly[3] of Woolworths and Coles. Specifically, the treatment involved the markets' positioning of

[3] This duopoly holds 70-80% market share along with wholesaler Metcash.

farmers and consumers as subordinate to Woolworths and Coles. For example, backyarder Sarah's immediate, emotive answer for her view of the hegemonic food system was, "pillaging of farmers, the pressure from huge corporations, like Woolworths, it absolutely drives me to distraction". The vivid imagery of "pillaging" as a descriptor illustrates a view of the subjugation of the farmer by the market power of supermarkets. Four other backyarders also used descriptors including "screwing over the farmers to get the cheapest things'' which was one of the main reasons for not shopping at Coles, Woolworths and for some, the German-based transnational supermarket chain Aldi. Backyarders used various sources for their claims about the relations between food retailers and farmers. As part of the Australian Food Sovereignty Alliance[4] (AFSA), backyarders Bella, Mark and Ben consulted with farmers about their role in agriculture. Mark went further to say that he did not see supermarkets- citing Woolworths to cover all supermarkets- as "coming into the food revolution" which would consist of "them providing farmers and customers with services at both ends". He reasoned that since supermarkets can only provide the cheap foods that they do by "stepping on toes". Mark's attitude depicts a distrust of a system that places supermarkets in the dominant price-negotiating position instead of the farmer; a point that is confirmed in the literature (Richards et al., 2012). Mark's solution for the farmers is to disconnect from this business paradigm by:

> A cooperative driven system or, they look after themselves, going to their own markets. Stop supplying the supermarkets.

Community urban food gardeners also shared their views regarding supermarkets' price squeeze on farmers. On a visit to Gatton[5], John heard a story of the price squeeze that farmers experience:

> We sat down to have lunch and, we sat next to an old bloke there and said, how is everything going out here in Gatton. And he said, "Woolworths is screwing us". That is what he said to us, we didn't prompt him.

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[4] A not-for-profit collaboration of organisations and individuals working together towards a food system in which people have the opportunity to choose, create and manage their food supply from paddock to plate.

[5] A primarily agriculture based rural town 90km West of Brisbane

The farmer gave John an example of the price that he got for his produce, versus Woolworths' mark up. John evaluated this information as a demonstration that: "There is no competition and that may be a conspiracy theory. But, you start to think about it; after all why else won't they give Aussie farmers a fair price?"

John perceived the supermarkets as possibly getting rid of the competition so they can control suppliers' asking price. John was described as political by Sharon, another member of Community Garden 1. To Sharon this meant 'he's an advocate for the downtrodden, [he] has a really big interest in politics'. Another example of John's advocacy for Australian farmers is that he did not shop at Coles and Woolworths. He described his action as a 'boycott'. The word boycott has political overtones of resistance and protest. It is interesting to note that all other urban food gardeners in this study either shop in a limited capacity or not at all at supermarkets, but the word boycotted was not present in their interviews. It can be argued that their disconnecting from the food system, clarified as an act of disagreement with the value sets of the system, was a boycott. John, overtly stated his action as a political act; specifically, a social justice act, in solidarity with farmers.

Two other community urban food gardeners, in their roles as consumers, also expressed distrust with regards to the positioning of products on the shelves at Coles and Woolworths. For example, Rachel assessed retailers as "pushing other brands out and trying to get the customer to buy their own brands". Beverley's distrust of supermarket labelling was also evident:

> I'm not sure how much they support the actual farmers; I have my ups and downs on that one. I only will buy from them if I can't buy from the fruit market. Usually the fruit market is just outside so I usually just check there first, and anything on my shopping list I can't get at the fruit shop I might pick up at Coles and Woolies [Woolworths].

Ted who was one of the urban food gardeners who did not express a strong view about the farmers' relations with supermarkets but had more to say about the role of supermarkets in keeping out smaller food retailers:

> The problem for me [is] its monopolies and how they manufacture the products. I suppose at one point in time it did not concern me, I got over that. But these days,

> you look at it more and more and they're stamping out that corner milk bar, they're ruthlessly crushing the greengrocer or the fruit and veggie store that was within a kilometre radius. They'd just annihilate them. And they can afford to do that out there, and cut their prices so low and bring in their produce from wherever in order to get the market share. I don't think that's right.

The word crushing and the phrase stamping out describe the physicality of the struggle to gain market share. In support of this point, Ted used another image of different scales of power, that of David and Goliath:

> Yeah it would be nice to think that that there is a middle ground that can be found, with the supermarket chains and the small providers and find a happy medium. [But], money is money, business is business, and unfortunately it does not quite work that way with supermarket chains. I think there is a battle being played out, and I think the supermarkets, the big supermarkets, it's [a] David and Goliath sort of thing.

The use of the battle metaphor denotes Ted's evaluation, with overtones of cynicism, that the supermarkets will not relinquish their hold over the food retail sector easily since "money is money, business is business". His cynicism was also evident in the use of the David and Goliath parable to illustrate his impression of the differences in scale, in the market and spatially, between the two types of retailers. However, in the parable the smaller combatant David wins the battle but Ted's symbolism does not extend to the smaller retailers winning a hold in the market, economically or spatially.

In summary, all urban food gardeners made a reference to the unethical treatment of Australian farmers by Woolworths and Coles. The point is confirmed in the literature whereby Australian farmers have been placed in a 'weakened bargaining position' by the supermarket duopoly of Woolworths and Coles (Richards et al., 2012, p. 255). Some urban food producers also identified neighborhood groceries as being outcompeted by Woolworths and Coles economically and spatially. Findings in this section are contemporary examples of Marx's concept of the metabolic rift. Capitalism changes labour relations between producers and their products (McClintock, 2010). The rise of industrial large-scale farming reduces the need for labour (McClintock, 2010) and in the case of Australia, the importance of the role of the farmer in the story of food. Since farmers have

less to with structuring the system, their knowledge and skills in cultivation are not needed in the large-scale cultivation process. Artificial inputs are regulated by the chemical companies, not the farmer.

In regards to distribution of produce, the rise of transnational supermarkets reduces the need of neighborhood groceries. Gardeners choose to shop at neighborhood groceries, over Coles and Woolworths. Neighborhood groceries chosen by gardeners, have a direct connection to food products, as in, food retailers are able to interact with customers and have information about the food in stock. 'Knowing' renders the food visible and allows gardeners to practice reflexive assessment of which local small-scale retailers they want to trust.

iii) Lack of availability of quality produce at Woolworths and Coles

Backyarder Phillip, a geologist, stated his 'philosophy' was 'gardening is a local issue, and it's not always helpful to compare information with other climatic zones'. This view was shared by all urban food gardeners. This spatially specific approach, involved a reflexive approach to growing food since urban food gardeners got better results when they worked with their site's specific issues instead of trying to outflank issues by, for example, using artificial fertilisers to grow European species in the semi-tropical Brisbane climate. Phillip was especially interested in growing Southern Asian and Australian Indigenous produce to match the climatic zone of Brisbane and promoted this notion through the gardeners club, Brisbane Organic Gardeners Inc. (BOGI).

Community gardener John had a similar approach and thesis to Phillip. John reported that due to the ecological reality of living in the sub-tropical climatic conditions of Brisbane, urban food gardeners had to stop trying to grow 'European' vegetables and;

> Learn about arrowroot, tamarillo and wing beans, things you can't buy in Coles and Woolies [Woolworths].

Most backyarders and community urban food gardeners held a similar view to John and Phillip and clarified that the public needs to be dissuaded from growing plants of European origin because of the high resource input to low output ratio.

In general, urban food gardeners attributed artificiality to the extensive availability of processed foods in supermarkets. For example, community gardener Mary's critique was that 'our food is pretty much getting manufactured and coming to us in ways that we don't recognise'. Her dark vision of the future of processed foods was expressed in a stressed tone:

> I just think, dark side look into the future. We won't have food growing like this [indicates the community garden]; we will have it coming in a squeezy tube. How manufactured is our food now?!

The processing stage of the food system is an important part of the capitalist paradigm since it allows the preservation of food over time, allowing its movement over an extended space (Murdoch and Miele, 1999). Urban food gardeners in this study evaluated outputs of processed crops as 'dead food' or 'food-like substances'. The latter term was referenced by one backyarder and four community urban food gardeners from their reading of *In Defence of Food, An Eater's Manifesto* by Michael Pollan. For example, Community Garden 1 member and convener John linked Pollan's work with the 'misinformation' shared by the food processing industry:

> There's a whole lot of misinformation out there which drown the good information. And even someone like Mike Pollan, has stated in his book, that nutritionists are a waste of time and are in fact doing a lot of harm because they are suggesting to people to have low fat milk. It's a processed food, and gives people illness. What's wrong with milk comes out of the cow?

John also called processed foods 'diseased foods'. In his role as a physiotherapist, John reported he often saw community health issues of diabetes and obesity, which he attributed to the prolific advertising and availability of processed foods. John had a lot to say about the 'mis-information' sharing of food processing companies, citing Kentucky Fried Chicken, McDonald's and McCain's frozen foods as some of the main culprits; arguing that such companies could be supplying foods "that are heavily laden with pesticides and causing people ill health".

Food quality

Backyarders gave specific times between harvest and consumption that they would tolerate, implying that commercial food miles were beyond preferred times. For instance, Mark, a post-graduate student, talked about why he would not buy 'greens' from supermarkets, organic shops or farmer's markets;

> Normally, from the time of harvest, to the time of eating, is at least two or three days. By then, the nutrients start to wilt or, it's really hard to keep those things. Your sugars are at its highest at six am, so I go and harvest six o'clock every morning, harvest what I need for the day.

For Derek, an engineer and highly productive backyard gardener, the preference was three days between harvest and consumption;

> Whatever you pick in your garden, fruit or whatever, within three days loses most of this vital energy. Makes sense you can taste it, pick an apple from a tree or buy from a shop.

He clarified this 'vital energy' as;

> Vitality of food, this fresh food, when you pick fruit or veggie, it starts to loose vitality after a day. That we are what we eat, and this vital living energy, this food you can get from the garden straight into your mouth, you can't get it from frozen or week old veggie you get in a shop. A lot of people are starting to realise that fresh is the best.

Mark used a scientific basis for his assessment of the best times to consume fresh foods. In Derek's speech, it is assumed that the metaphysical terminology 'vital energy' means nutritional value. With this insight on their evaluation of the value of food in relation to its content, it is unsurprising to note that both urban food gardeners were amongst the four most productive backyard producers interviewed for this study. On viewing their prolific gardens, this researcher was informed by backyarders that 90% of their households' herb and vegetable needs were supplied from the garden.

Earlier in this section, there was a discussion of backyarder Phillip's linkage of inorganic inputs to the reduced mineral content of food, which for Phillip reduced food quality. For

Phillip, the health benefits derived from foods with high nutritional content became more significant as he aged. This backyarder mainly grew herbal medicinal plants of Asian origin both for the relevance of species to the sub-tropical climate of Brisbane and for health reasons. Using his geological knowledge and his “research skills” he found that;

> The more I have gone into health research the more I am aware that a lot of medicines that doctors promote are actually derived from plants that you can quite easily grow in your garden.

Discussion and Conclusion

This chapter discussed 19 urban food gardeners’ articulations of what motivates them to grow their own food in order to answer sub-question one of this thesis: What are Brisbane-based community and backyard gardeners’ motivations and legitimisations for growing and sourcing their food?

Brisbane-based community and backyard gardeners were motivated by self-reliance and grew some of their own food. Food was also sourced from small-scale retailers and farmers’ markets in their or neighbouring suburbs and box schemes that link rural and peri urban producers within a four hour driving radius of Brisbane. Gardeners legitimised their food sources in a discourse of a dysfunctional global food system, which emphasises:

i) the use of biochemicals and mechanisation in industrial agriculture;

ii) corporate control of producers and the food retail sector – Woolworths and Coles; and

iii) lack of availability of quality produce at the two main food retailers in Queensland - Woolworths and Coles.

Urban food gardeners expressed concern and anxiety about soil loss and sediment build up on the Great Barrier Reef due to large-scale farming in Queensland. Use of terms like ‘force feed’ denoted the unnatural practices of the industrial system which is all about getting a ‘return’. Urban food gardeners legitimised their disconnection from the GFS due to the excessive use of biochemicals. Concern over the use of biochemicals was in the

context of land degradation in the form of salinity and run-off of artificial fertilisers into the Great Barrier Reef.

Another concern expressed by gardeners with the hegemonic food system in Queensland as a reflection of the GFS, was prevalence of processed foods and hybrid seeds. The addition of chemically derived preservatives and other techniques ‘to minimise the impacts of the biological or natural content of food products’ also allowed ‘linkages between distant places’ (Murdoch and Miele, 1999, p.468). As a result the production of ‘food-like substances’ and the prevalence of hybrid seeds requiring artificial inputs for survival in order to ‘outflank’ biological systems that were traditionally at the core of food production (Murdoch, Marsden & Banks, 2000, p.108; Murdoch & Miele, 1999). Urban food gardeners were motivated to conduct seed saving activities in order to preserve site specific open pollinated plants for their own use and for sharing with other urban gardeners. In theoretical terms, gardeners are concerned with the socio-ecological disruption, metabolic rift, typical of globalisation processes which are based on ’the desire to overcome any natural constraints that might emerge during systems of (capitalist) production’ (Murdoch & Miele, 1999, p.467; Wittman, 2009; McClintock, 2010).

Unethical power relations were identified by all urban food gardeners, with overt political views by four urban food gardeners. Urban food gardeners’ evaluated the market’s manipulation by the Coles/Woolworths duopoly, as unethical and unfair to Australian farmers. All urban food gardeners also perceived a power imbalance exerted by Coles and Woolworths that positioned Australian farmers and consumers as subordinate agents in the food supply system. In Australia, the food retail sector is concentrated with two supermarkets, Coles, Woolworths and the wholesaler, Metcash holding a combined market share of 70-80% (Richards et al., 2012). The resulting power imbalance places producers and consumers as having less to do with structuring the system than corporatised retailers. Theoretical discussions about power imbalances in modern systems highlighted that, power rests with those who structure the system, spanning distance and decreasing time between consumption and production (Hendrickson and Heffernan, 2002; Moreira, 2011).

Urban food gardeners reported another major motivation to grow some of their own food was due to their being distanced from the ecological and labour story embedded in foods. Causations were articulated as the ‘soulless’, ‘hands off’ mechanical cultivation and

harvesting methods of large scale farming. As consumers, urban food gardeners in the study placed an importance on knowing the story of the labour that went into producing and harvesting the food as well as the ecological details about the crop itself. Theoretically, the lack of a story of food can be conceptualised as a disruption by capitalism of the dynamic and interdependent process linking society and nature through labour; discussed in this chapter in relation to Marx's notion of 'metabolic rift'.

According to the theoretical framework of this thesis, since reflexive subjectivities capture the operations of macro-social processes, it is reasonable to say that a subject's decisions are limited by the contextual norms in which they live (Farrugia, 2013). The contextual norm emphasised in this chapter was the metabolic rift brought about by the structural relations of the GFS. Gardeners recognise the metabolic rift in their identification of three issues with the GFS and use this information to reflexively construct means to overcome these issues. Part of the process to overcome issues with the GFS is the 'local'. The local being the 'place' of the garden and location of small-scale retailers since these are the sites where gardeners could source their food relying less on Coles and Woolworths; and, access information about where their food came from.

Reflexive subjectivities are those which must turn the complex demands of modern social life into a meaningful biography. In conclusion, urban food gardeners' meaningful food biography includes equating natural systems with the production of quality foods. Food, for urban food gardeners, was a link on an individual level, with nature with wider implications of social justice for producers and recognition of the metabolic rift — motivations and legitimisations that are the basis for gardeners' conceptualisations of practices of growing and sourcing food discussed in the next chapter.

CHAPTER SIX: CONCEPTUALISING THE PRACTICE OF GROWING AND SOURCING FOOD

This chapter reports on evidence that sheds light on research sub-question two: How do Brisbane-based community and backyard gardeners conceptualise the practice of growing and sourcing their food?

Gardeners reported that practices take place at three different scales, with some overlap of activity occurring between scales. At the scale of the garden, gardeners are accumulating new knowledge about ecological growing systems and achieving a level of self-reliance. Accumulating new knowledge involved practises of reflexive re-working of European methods of food production using row planting and integration of new knowledge in the form of permaculture. At the scale of the suburb, most gardeners conceptualised acts of growing their own food as accumulating knowledge which led them to teach others to grow food, and supporting local retailers to keep fiscal economies in the suburb as a means to build community resilience. At the scale of the state gardeners practiced and envisioned an ecological based and socially just food economy in order to create ethical livelihoods for themselves and others in the neighborhood.

The chapter concludes that by conducting actions in sourcing food across three scales demonstrates a reflexive approach to localism. The discussion of the discourse of the local place in this chapter begins with practices that are undertaken at the scale of the nation.

A Discourse of the 'Local Place' – Action at three scales

i) The scale of the state

Ecological and socially based food economies

A counter-frame of market processes was envisioned, practiced and supported by urban food gardeners in this study of Brisbane. As opposed to the global food system (GFS) wherein market standards are oriented to efficiency and competiveness; urban food gardeners articulated and practiced trading and production on the basis of community building, a socially just business paradigm, and environmental values of low food miles and use of organic inputs in crop cultivation. In keeping with these characteristics, urban

food gardeners in the study reported that they supported initiatives of famers' markets, independent neighbourhood groceries, food co-operatives or box schemes. Foods sourced through initiatives were grown by farmers operating small-scale urban, semi-rural and rural, polyculture lots or farms in Victoria, Queensland and New South Wales. For example, backyarder Mark discussed his vision of expanding the reach of his crop swapping network beyond the city of Brisbane to include other states:

> Mark: I like the idea of, rather than having one big food system, have quite a few little ones. They can still interact, they can still intersect. There's no reason why something still can't come up from Victoria, but let's try and get as much as we can from this space first. If we need it, we can get it up, there's nothing wrong with that.
>
> Researcher: So it's not all about being local food?
>
> Mark: No, but it's about reducing our miles where we can. We can talk to some people in Sydney, if we do some sort of network, and [for example ask] we have an excess of [produce], do you need any? They [Sydney] can send [their excess produce] up and we exchange.

Mark, along with three backyarders and one community gardener, clarified that a socially just food economy constitute a strategy to defend Australian farmers against the unethical business paradigm of corporatised transnational supermarkets Woolworths and Coles. In keeping with Farrugia's (2013) emphasis on reflexive subjectivities reflecting macro-social structures, the discursive emphasis on community building, a socially just distribution system and environmental values of low food miles and use of organic inputs in crop cultivation reflect issues with the hegemonic GFS.

The majority of urban food gardeners in this study thought the local government should assist private sector initiatives, making urban farming more commercially viable. The following section discusses this point.

Role for local government

The general view by urban food gardeners of the Brisbane City Council was that of being 'prohibitive' and limiting their control over their response to try and implement sustainable food production. For example, backyarder Bella outlined how local government policy was

restricting her and her husband's ability to recycle waste materials and provide food production inputs:

> We go out and forage leaf litter and grass clippings to put in our garden but in Brisbane City Council parks and along waterways, they use so many chemicals that it's not good, so it's kind of a wasted resource.

Urban food gardeners in this study thought the local government should assist private sector initiatives, making urban farming more commercially viable. For example, backyard gardener Ted specified;

> Individuals who can provide those solutions [could] probably work a bit more closely with private enterprise to come up with business models that are financially viable. When push comes to shove, the community garden is lovely and it's nice to be part of that sort of thing but, it'll only ever be a basic community garden, until there is a financial benefit.

Urban food gardeners also voiced the opinion that commercial viability was the way to generate food production via urban food production. The volume needed to significantly supply Brisbane was perceived as mostly restricted by community involvement. Ted believed community involvement could be enhanced by creating market incentives, and thereby livelihoods.

Interestingly, food scholars concerned with local food movements are advocating for research to pose more questions on how communities organise localised economies to 'give space and support to public and eco-economies which indeed start with social priorities' (Marsden & Franklin, 2013, p.639). Scholars also point out that spaces opened up by the limitations in the current form of food governance at state and local government levels can become occupied by new 'post-neoliberal institutional platforms' (Marsden & Franklin, 2013, p.640). Clearly, from the issues reported by urban food gardeners in Brisbane, new forms of governance by Brisbane City Council are not underway. However, what can be taken away from this discussion are visions and priorities highlighted by gardeners can be used to open up possibilities of a dialogue with local government on where support of AFIs can be initiated.

At the scale of the state, the practice of growing and sourcing food is conceptualised as part of an ethical trade that can serve as the basis of ethical trade across state lines. As such this requires support from local and state governments. The discussion now turns to details of practices at the scale of the suburb as part of the discourse of the local place.

ii) The scale of the suburb

Ecological and socially based food economies

In the context of creating ethical livelihoods, urban food gardeners preferred produce from Australian rural and urban food agricultural systems to supply the fruit and vegetable market down the road; counteracting the tendency of the GFS to supply 'food from nowhere' (Bové et al., 2002). An alternative distribution system was discussed by backyarder Mark who, at the time of the interview had disconnected from the hegemonic food system and accessed food from the backyard and crop swap systems. Mark also started an urban gardeners' co-operative crop swap distribution system, which involved peri-urban and urban gardeners in the Brisbane City Council area meeting once a week to exchange crops. However, Mark emphasised that money-based trades should be kept within the local suburb:

> Mark: Employing locally where we can, you increase the cycle in the economy. Someone was telling me if you buy local, the money circulates in the economy three or four times. If you're buying external, it's in and out, it doesn't stay. There's a wonderful quote ''rather than seeing the world as a whole, see it as a series of localities''.

Backyarder Ted's version of a community-based commercial model also involved food or labour as a possible exchange unit:

> The community pays for [backyard and community garden produce] at a discounted price. They are part of the labour that grows it. The fruit and vegetable market down the road [can also] stock your produce and bring in others from other gardens. Then you can make a difference in [people's supply].

In this section, it was proposed by most urban food gardeners that communities in and across suburbs could connect to each other via ecological based and socially just food economy food economies.

From this discussion of the AFIs that occur or should occur at the scale of the suburb, monetary based systems were articulated as best occurring at the immediate locale with the purpose of keeping financial benefits in the suburb. The discursive emphasis of practicing and envisioning ecological based and socially just food economies is lending itself to an emerging reflexive approach to the local place whereby the local is influenced by the locality in question (Amin, 2003; Allen, FitzSimmons, Goodman & Warner, 2003; DuPuis & Goodman, 2005). Backyarders envisioned an inclusionary model of a locally formulated alternative food economy wherein individuals could trade labour as well as domestically produced food items. This process would also enable the creation of links with the community, through trade in ecological based and socially just food economies and support of local retailers.

Urban food gardeners clarified space as wasted space which was referenced as public parks, unused Council land, verges and residential lawns. A limiting factor to the use of wasted spaces was government red tape. Backyarder Mark did not succeed in establishing a community garden on unused council land because "the nature of government is such that, they're so worried about laws and rules for their sake that they're incredibly difficult to deal with". This difficulty in dealing with the Brisbane City Council led community gardener Sharon to undertake guerrilla gardening by growing food on her street verge. Sharon reported that she was not sure if verge planting was illegal:

> I've been afraid to ask. My experience is if you ask a big organisation like Brisbane City Council, 'can you grow food on my verge', you'll get a little person in the system somewhere who will happily tell you no. You want to get someone who can think outside the dots.

However, it was also highlighted by most urban food gardeners that local government laws need to assist in the promotion of community gardens, verges and other council land as sites of food production. Urban food gardeners also voiced that local government could concurrently support community based food production and distribution businesses, with a view to ensuring ethical livelihoods within a suburb.

The final scale of practice in urban food production is the most important according to gardeners. The scale of the garden where the act of growing food occurs is the aspect of the local place where gardeners accumulate new knowledge by working with nature to achieve food production. In working with nature, gardeners are called upon to reflexively reimagine their heritage. Through the process of reflexive re-imaginings of heritage, gardeners are creating a dialectal relationship with the environment and repairing the metabolic rift highlighted in Chapter Five as having been brought about by the GFS. While the process of accumulating new knowledge is taking place, gardeners also reported that they undertake practices of teaching to build community knowledge and connectivity.

iii) The scale of the garden

Accumulating new knowledge - Reflexivity and re-working inherited knowledge

Despite the vast amount of information available to modern societies on how the world works, there are many features of modern systems that are unknown to experts and laymen alike (Giddens, 1990:145). Though 17 urban food gardeners in this study are experts in various professions, there was an acknowledgement of a need to accumulate and retain knowledge of one of the basic requirements for life, adequate food provisioning.

Most Brisbane based urban food gardeners had a heritage of domestic food production. Some urban food gardeners had a heritage of family farming in Europe (specifically the Czech Republic and Holland) while others came from a background of grazing properties in Queensland and market gardening in Tasmania. For most urban food gardeners' parents and grandparents, domestic food production was a necessity since they lived through the 1930s Great Depression and the austerity measures of the Second World War. Processes of integrating traditional knowledge with the uptake of new knowledge were clearly demonstrated by backyard urban food gardeners, due to the individual nature of backyard food production despite some urban food gardeners being part of food production networks. For community garden members, the demonstration of heritage was less clear since they had to practice systems that were part of the communal philosophy of the garden. However, a notable exception was Sharon, a member of Community Garden1. Sharon grew up "seeing" her grandfather achieve self-sufficiency for his household through backyard food production. However, she did not grow her own food until her

forties, following retirement. Despite this time lag, when it came to adopting a new occupation, Sharon chose food production as a way to both re-engage with her younger self as well as achieve her new goal of a sustainable lifestyle for her family. She thought she could achieve her aims by joining her neighbourhood community garden.

Other community gardeners held a similar view of the importance of maintaining social links. For example, Mary of Community Garden 1 found that the communal system was conducive to knowledge building, both for the group and individual. When Mary returned to Brisbane from 20 years of growing food in New Zealand, she had "to learn what vegetables to grow in this semi-tropical climate". For her, the adjustment to new growing systems could only be done by learning from, and assisting, others in a group. In the process of assisting others and learning from others, Mary said she gained and maintained community links. Linking with the community was purposively achieved by other urban gardeners in this study and is further discussed in the following section.

Backyarder Sarah differed from all other urban food gardeners in this study. Despite her referencing the upkeep of food growing skills learned in childhood, as, "keeping it in our blood so we have that ability to do it, seems like an important thing to do"; Sarah regarded what she was doing as a hobby. She defined hobby as the type of thing "you do just because you do it, you don't have to make a decision about it". Later in the interview she clarified that it is "not normal not to" grow at least some of your own food. However, Sarah did not get as much purpose and meaning from growing food as she did from her professional work as an English as a Second Language (ESL) teacher. She produced food in her backyard because it was what she grew up doing and it was normal to do it. This latter statement indicates that the act of growing food for Sarah was routinised and a habit, neither requiring reflexive reasoning nor a re-imagining of her food provisioning system.

In theoretical analyses of food system reform at the global scale, food scholars are applying Marx's concept of metabolic rift to food sovereignty as reworking the metabolic rift between society and nature. The role of labour in the process of working with nature to produce food was recognised by urban food gardeners as resulting in their gaining a link to nature. This approach of working with nature was demonstrated by all urban food gardeners' practice of ecologically based growing systems and in most cases, specifically permaculture — discussed in more detail in the following section.

New knowledge - Permaculture

One of the features emerging from the data is urban food gardeners' value and practice of permaculture as a food growing system. Permaculture is an agricultural system, based on understanding the site, which involves working with, rather than against, nature (Mollison, 1988). The system encompasses the philosophy that, "In life and in design, we must accept that immutable rules will not apply, and instead be prepared to be guided on our continuing exploration by flexible principles and directives" (Mollison, 1988, p.3).

Urban food gardeners' uptake of this form of agriculture was either by being formally taught in a course, and certified, or by being self-taught through books and experience. Three networked backyarders and one community gardener had permaculture certification. Other urban food gardeners were self-taught in the permaculture system by reading books and learning from certified permaculturalists in their community. Non-networked backyarder Ted, who did not refer to permaculture in his interview, demonstrated the reflexivity involved in having to adjust growing systems to the nature of a site which is aligned with philosophy and methodology of the permaculture system. Specifically for Ted, he had to learn to relinquish control over the site. He explained:

> [Initially], I approached the vegetable patch from one which was very rigid and I tried to control it all; planting rows, keeping it nice and trimmed, and the rest and treat it a bit like a formal garden. It didn't really pay off. There was too much time involved, and the plants did not seem to, maybe I offered a bit too much, but the plants did not seem to be doing what I wanted them to do. So, I've taken a more relaxed approach now, and I let the plants do what they want to do effectively, and they grow, they grow much better.

Theoretically, gardeners' observation that they had to adjust their approach to the garden away from personal sentiments of control or inherited knowledge, demonstrates gardeners interest in establishing a more reflexive approach to domestic food production.

Building community knowledge- Teaching how to repair the metabolic rift

All urban food gardeners in this study were involved in teaching and learning via the public spaces of the community garden and contrary to the literature, the private space of their

own backyard gardens. This latter finding was one of the most interesting in this study since it provided a different view of the Australian backyard as one of a site of building public relationships, through a private space. From the limited literature on how Australian backyarders view their land space, Head et al (2004) discuss backyards in Australia as 'usually well-defined spatially, and valued by their owners as havens of privacy and freedom' (p.327). However, urban food gardeners Mark and Derek have each made their backyards part of the visible locale, blurring the boundaries between public and private space. Derek said, "it is important to show people what can be done even in rental property", and as such he held public open days to explain his use of organic techniques in backyard food production. As previously discussed, he also produced a pamphlet for the public that outlined the history of his and his partner's beginnings as backyard food producers (see Appendix D). Mark said, "sometimes you just need other people to show you what is possible. I'm a very big believer in leading by example." Mark led by example by not only producing most of his herbs and vegetables but by assisting others to convert their gardens to food production sites. Mark and Derek positioned themselves, and their backyards, to serve as conduits of domestic food production techniques. This action is discussed in the literature by Kotright and Wakefield (2010) as cementing relationships within the community. Derek and Mark both demonstrated that backyards could also be spaces of transmission of socio-ecological memory and knowledge (Barthel, Parker & Ernstson, 2013).

An important component of education was cited as community gardens, which were identified as the main sites for knowledge transmission of ecology and sustainability information. As Community Garden 1's convener, John, said, "the aim of this garden is as a sustainability center so residents around here can come and learn how to grow their own food". Similar to the discussion above of backyard gardens being able to transmit socio-ecological memory and knowledge, Barthel et al. (2013) emphasise that community and allotment gardens are able to 'provide a unique and distinctively effective means of retaining and transmitting collective memories of how to grow food and manage the regulatory ecosystem services required to do so' (p.5).

DISCUSSION AND CONCLUSION

This chapter has drawn upon the discursive emphases of gardeners to address research question two: How do Brisbane-based community and backyard gardeners conceptualise the practice of growing and sourcing their food?

From findings reported in this chapter, urban food gardeners' subjectivities are interpreted as based on context-dependent variations and contradictions, in their perceptions of the geographic boundary of the local place. Practices of growing and sourcing their food was conceptualised by gardeners as occurring at three scales of the 'local': i) the nation, ii) the suburb in which they lived and neighbouring suburbs, and iii) the garden.

This chapter reported that, at the scale of the nation, the practice of growing and sourcing their food is conceptualised as part of an ethical trade. Ethical trade was also articulated by gardeners as taking place across State lines and requires support from local and State governments. Thus an aspect of the discourse of the 'local place' is ethical trade across state lines to expand the variety of foods available and make use of transport between states, reducing energy use. It is argued that the geography of the local is constructed depending on the practice involved is underpinned by ethical environmental and social practices, highlighted as crop swaps.

At the scale of the suburb, it was reported that AFIs that occur, or should occur, should be monetary based systems with the purpose of keeping financial benefits in the suburb. The discursive emphasis of practicing and envisioning ecological based and socially just food economies is lending itself to an emerging reflexive approach to the local place whereby the local is influenced by the locality in question (Amin, 2003; Allen, FitzSimmons, Goodman & Warner, 2003; DuPuis & Goodman, 2005). Backyarders envisioned an inclusionary model of a locally formulated alternative food economy whereby individuals can trade labour as well as domestically produced food items. Gardeners reported that what is needed were new forms of governance by Brisbane City Council in regards to supporting ecological based and socially just food economies. What was taken away from this discussion was that visions and priorities highlighted by gardeners opens up possibilities of a dialogue with local government on where support of AFIs can be initiated.

Gardeners also undertook teaching at the scale of the suburb by to build community knowledge. Once a subjective sense of survival was achieved, most urban food gardeners reported they eventually got involved with transmission of knowledge to the rest of the community to build community knowledge. This is in contrast to Farrugia's (2013) call to not regard reflexive subjectivities in the context of self-creation since he wants the theory to be used to highlight the macro structure as it is reflected in micro social practices. However, the move from self-reliance to community knowledge development reflects the need for urban food gardeners to take care of themselves before they can have any knowledge to pass on. When it comes to food production, the experiential knowledge gained at the individual level is part of the lessons that are transmitted to others.

At the scale of the garden, gardeners practiced accumulating new knowledge by reflexively re-working inherited knowledge. From a broad theoretical view, restrictions imposed by macro social structures can lead to the engagement with processes that may break other macro social processes. This latter point takes Farrugia's (2013) thesis further in that reflexivity cannot be fully assessed at one geographical point but should be regarded as a process that changes and fluctuates over time and space. In support of this is the finding whereby, gardeners in Brisbane show a process that leads from self-reliance at the scale of the garden to a dynamic of community engagement and environmental responsibility within the scale of the suburb. The two dynamics do not need to be conflated to make a point, which may be Farrugia's (2013) concern. The scale of where achievements occur are that of the individual but, by relating purposes and activities across scales, there is evidence that Farrugia's (2013) thesis of subjective reflexivity is refuted if gardeners' actions are viewed across multiple scales. A local place discourse viewed only at the scale of the garden would show discursive emphasis of self-reliance which can lead to conclusions of a defensive approach to the local place. However, further analysis shows that once self-reliance was achieved to some level, gardeners articulated a discourse of enabling community linkages within the suburb by transfer of ecological knowledge, and across cities by building ecological based and socially just food economies.

In conclusion, the localism discourse articulated by gardeners views the 'local place' as composed of three scales: the nation, suburb and garden. Scales and their affiliated practises and reflexive discursive terrain are as follows:

1) At the scale of the garden, gardeners are accumulating new knowledge about ecological growing systems and achieving a level of self-reliance. Accumulating new knowledge involved practises of reflexive re-working of European methods of food production using row planting and integration of new knowledge in the form of permaculture.

2) At the scale of suburb, most gardeners conceptualised acts of growing their own food as accumulating knowledge which led them to teach others to grow food. Additionally, gardeners supported local retailers to keep fiscal economies in the suburb as a means to build community resilience.

3) At the scale of the suburb and that of broader scales of the state, gardeners practiced and envisioned ecological based and socially just food economies in order to create ethical livelihoods for themselves and others in the neighborhood and/or enable wider accessibility of fresh foods to cohorts that may be limited by capital by building in non-market based trades as part of the system.

The next chapter focuses on how gardeners conceptualise the geographic place of where they grow and source food requirements. Conceptualisations will add to the discursive terrain of gardeners' constructs of the local place.

CHAPTER SEVEN: DISCURSIVE EMPHASIS OF THE GEOGRAPHIC PLACE OF COMMUNITY AND BACKYARD GARDENS IN BRISBANE

The previous chapter established that19 Brisbane gardeners conceptualised their practices in terms of self-reliance, knowledge accumulation trusting in local retailers and ethical livelihoods based on market and non-market food economies. It was also argued that practices are undertaken at three different scales, that of the nation, the suburb, and the garden.

To add to the analyses, this chapter reports on findings that answer sub-question three; 'how do Brisbane-based gardeners conceptualise the geographic place of where they grow and source food requirements?' The analytical approach of discourse analysis taken by this thesis highlights that, gardeners' 'local place' discourse places discursive emphasis on repairing the metabolic rift between society and the environment, building community knowledge by teaching how to repair the metabolic rift and building links with community through normalising techniques and negotiating contestations and ownership dynamics.

Repairing the metabolic rift between society and the environment

Building links to the environment

A major theme in urban food gardeners' interviews was a need to regain the link to nature, or a need to understand the 'interaction between animals, plants and the soil' of a particular site. Two community urban food gardeners and four backyarders also considered food growing sites as the place where an important link to 'nature' and the environment in general can be regained. For example, when asked what he has learned to appreciate through growing his own food, backyarder Derek answered

> That connection with nature we've lost as a civilization. Because, working in the CBD [central business district], going there by public transport or car, you don't even touch [the] ground. [You] don't know the weather outside, because you [are] closed in office for the whole day, so that regaining the link with nature.

The importance of (re)-establishing a connection to nature was also outlined by Jennifer:

> People are becoming very disconnected from nature and I think that's a big concern. Having a place when they can connect; even just a place growing veggies, I think that's very valuable. Otherwise, people will just forget about where the food comes from, and what important role the environment plays in their lives.

Backyarder Jennifer used the word 'environment' 17 times in her interview which is, on average, four times more than any other interviewee. It can be postulated that the word 'environment' had scientific and political overtones for this interviewee because of her education level, she holds a PhD in ecology, and her position in State government as an ecologist.

Using ecological growing systems in food production

Three community urban food gardeners talked of the creativity involved in food production. For example, when Heather was asked; *how would you describe the activity or experience of producing your own food?* she answered; "finding ways that make things work together in the garden system is another way of being creative".

Sharon evaluated and accepted the stages involved in growing food, as part of a cycle:

> The activity, it does involve a fair bit of physical work, and it does involve a lot of fiddly coordination as well. You got to get your seeds, and you've got to know your season; you've got to propagate [seeds]; and you've got to get them in and nurture them. It's a complete cycle, it doesn't go away. Mind, you could set it up that it just ran naturally I suppose, which would be ideal. My experience so far, tells me you kind of got to be onto it all the time. So the activity, and the experience, it's a wonderful thing.

Through their actions, urban food gardeners are situated as part creators of the natural world around them. There was a reflexive process, and dialectical practice, of control and acceptance of ecological systems. This compatible duality required a subjective reflexive approach to food provisioning to generate a feeling of connection to a world of differing norms than the rest of the social order. As discussed in Chapter Three, subjective reflexivities in modernity not only reflect hegemonic social structures but also emerging changes to the social order. The dialectic of control and acceptance imposed by the natural world on urban food gardeners are alternative norms, evaluated as worth the

“fiddly coordination” (community gardener Sharon) and “heartbreak” (backyard gardener Bella) involved in food production using ecologically based methods.

This reflexive approach emphasised working with natural systems instead of trying to control them. Urban food gardeners found they reaped more of a “reward” (backyarder Mark) both material and psychological, when they based their growing systems on an understanding of their site specific issues. The amount of food produced, though less than expected, was in excess of that produced when the site was designed around “unnatural”(backyarder Derek) systems. The psychological reward for urban food gardeners was one of “pride” (backyarder Mark) in working with the “natural elements” (backyarder Mark) to successfully produce some of their domestic food needs. Two aspects of the rewards to growing some of their own food can be theorised as embodying a practice in survival and independence, which for urban food gardeners gave the act, labour, of growing food “purpose” and “meaning” (backyarder Derek).

Theoretically, the meaning and purpose achieved by urban food gardeners in this study was that by growing some of their own food, they became engaged in a process of repairing the capitalist driven ‘metabolic rift’. Marx used the concept of ‘metabolic rift’ to explain the effect of removing the human element from production processes (Wittman, 2009; McClintock, 2010). This material explanation of political economy enabled Marx to identify capitalism as changing labour relations between nature and humans (McClintock, 2010; Butler & Dixon, 2012). Working with nature called upon gardeners to reflexively re-imagine their subjective value sets. The process involved reflexively re-imagining subjective value sets that enabled gardeners to engage with the natural world. In engaging with the natural world some gardeners reported a change in their ‘lens’. For example, community gardener Sharon discussed her new attitude when coming across fruiting mango trees:

> I’m always looking around now with a new lens. I just don’t see a tree, I see the seeds and would it be possible to get another tree from those seeds.

Sharon saw more opportunities for self-provisioning over a longer period of time instead of immediate gratification. Sharon also had the aim of sharing seedlings to other sites and with other people now that she had the skills to propagate the seedling herself and had taken part in the ‘gifting economy’. Previous to her food production activities in the

community and backyard, Sharon would have picked the mangoes only for her consumption.

The consequence of transformation of gardeners' view of the world through working with nature to grow food demonstrates Wittman's application of Marx's concept of metabolic rift to contemporary agricultural studies. Wittman's (2009) analysis of the role of agriculture is for members of society to 'appropriate the material of nature through labour, in the process transforming the environment and simultaneously their own (human) nature (Wittman, 2009, p. 806).

In this section, the garden is conceptualised by gardeners as a site where individuals can (re)-establish a necessary connection to the environment. The following section discusses an aspect of repairing the metabolic rift; that of passing on ecological knowledge.

Building links to Community - Teaching and normalising reparation of the metabolic rift

From the data collected in interview texts, the meaning of 'education' to gardeners in this study is:

> The transmission by the group of social-ecological information about a site to build and preserve knowledge about ecologically based practises of food production for a household. The sharing of knowledge and the material products if this knowledge, food, creates a gifting economy, cementing relationships within the community.

The Australian backyard was traditionally regraded as a private space and hidden from view (Head et al., 2004). But from the findings discussed in this section, due to some backyarders' reflexive efforts to not allow the barrier of land ownership and tradition prevent them from taking part in their community building, the private can also become a successful conduit to education for the public.

The discussion now turns to findings focused on urban food gardeners' rhetoric of the use of urban space to promote connecting to the environment through engaging with food production. By using various communication methods, urban food gardeners are arguably consciously working towards normalising urban food production in Brisbane.

Normalising food production

This section examines the discursive techniques and messages relayed and employed by 19 urban food gardeners in promoting food production in urban spaces. All urban food gardeners are in it for the long haul and mean to at least become self-sustaining themselves. Additionally, most urban food gardeners plan, or partake in, education of the general community on how to be independent of the GFS. The development of this aim was generated over the years via various methods: permaculture and sustainability workshops held at Northey Street City Farm and other community gardens, lectures at public festivals such as Woodford Folk Festival and mainstream gardening television programs like *Gardening Australia*. The following discussion highlights various conduits of information transmission and motivational sources for urban food gardeners in this study.

Food growing networks

Some urban food backyard gardeners in this study were part of food growing groups, crop swaps and backyard blitzing groups. For example, three backyarders, Mark, Heather and Phillip, attended monthly meetings for city wide food gardeners organised by Brisbane Organic Gardeners Inc. At these meetings, backyarders in this study exchanged seeds and plants and shared information resources with other urban gardeners in Brisbane. Backyarder Mark evaluated the group as:

> An absolute powerhouse of information if you ask any of them anything they're more than happy to help. I think the provision of information is very important to let people know it's not that hard to grow a garden.

All urban food gardeners in this study know of BOGI and access the groups' information website to get information on how to cultivate sub-tropical vegetable species.

Networked urban food gardeners in this study also took part in the Permablitz movement. The movement, with the motto *'Eating the suburbs-One backyard at a time'*, assists in turning private space into a productive space and is a network resource. Permablitz encourages people to participate and 'contribute anyway you are able' because 'everyone has to eat' (Permablitz, 2010). Backyarder Ben, a member of Permablitz, noticed that a feature of the group is that 'people come along from all sorts of backgrounds, not just the fringe of society'.

The following section highlights how Derek used his backyard to normalise urban food production by undertaking self-publications.

Self-publications

Written texts were also part of the normalisation techniques employed by some urban food gardeners. Backyarder Derek, who lived in a rental unit, self-published a brochure entitled: '*Sustainable living in a rental property*: *Even in a rental property, we can live a sustainable life within a functional community' (*see Appendix D). The brochure is divided into sections that include lifestyle, lessons learnt and creating local community. Derek's brochure is a tool for spreading the word about the ability to make change even when structured against it, as in a rental property. The brochure also includes Derek's willingness to offer free advice to anyone who needs help in setting up a sustainable system. In the interview, Derek felt his situation was 'unique' and also said, 'I think it is important to show people what can be done even in a rental property'.

The section entitled 'Interesting links' in the brochure listed Brisbane Organic Gardeners Inc. and Northey Street City Farm amongst others. Under the sub-title 'Recommended', documentaries, films and books were with an ecocentric and metaphysical focus. Derek's philosophical belief was that fresh food contained 'vital living energy'. For Derek, fresh foods were organically grown and reaped by hand. Hence, his philosophical beliefs are transmitted publicly via this brochure and he hoped it would reach people who;

> Don't realise that we are what we eat and this vital living energy, this food you can get from the garden straight into your mouth, you can't get it from frozen or week old vegetables from a shop.

The following section discusses contestations and ownership dynamics that can occur when community gardeners are in the process of conceptualising the geographic place of communal food production.

Negotiating contestations and ownership dynamics

There was evidence of contestations of values within the membership of Community Garden 1. Garden member Sharon had a dispute with the convener John over the aims of the garden. John saw the garden as a 'sustainability centre' with the aim of educating the

community on how to grow food in their backyards. Sharon saw the garden as a sustainable source of some of her household 'needs'.

Sharon had hoped that with her and her families' regular attendance at garden working bees, she would be provided with most of her household's vegetable and herb requirements. Sharon's aim was not realised due to John's advocacy of using the produce as a teaching tool. Subsequently Sharon could not achieve her personal aims for household sufficiency in vegetables and herbs. Sharon reflexively changed her strategy, and started to cultivate her limited backyard space and street verge to achieve her self-sufficiency goal. Ironically, this was in keeping with John's aim for the garden, which was as a teaching tool to encourage the neighborhood to use their backyards for growing food.

Sharon also chose to still take part in the garden's workshops and working days to maintain her links to the community. In Sharon's case, self-reliance involved disagreement with the collective but Sharon's actions demonstrated that while undertaking alternative means to achieve her self-sufficiency via the backyard and verge, she also valued her link to the community via the community garden. Hence, for Sharon, self-authorship was not aimed at creating a stand-alone self but more about managing the needs of the self which included maintaining community links. She saw the dispute as a conflict of values articulated at differing scales; individual self-sufficiency versus community sustainability. The reflexivity involved in Sharon's undertaking guerrilla gardening activity of verge planting, pushed higher order governance boundaries. However, this seemingly political action was possibly contextually dependent. Additional questions in the interview may have clarified if Sharon would have undertaken the subversive action of verge planting if she did not have the examples of 'trailblazers' in Sydney and Costa's political advocacy.

The dispute at Community Garden 1 was about who is served by the community garden, the members or the community. In the 1980s, the sustainability narrative 'emerged as a powerful symbol and the goal of a social movement focused on food and agriculture in the United States' (Hassanein, 2003, p.78), hence John's promotion of the narrative in the aims of Community Garden 1.The literature discusses the untenable nature of the definition of sustainability due to the different interest groups that have an ideological stake concerning agriculture and food. The broad theme of the definition rests on a balanced viability of social concerns, in the case of this study, Sharon's self-sufficiency versus education of the community. As Hassanein (2003) points out, at the core of definitions of

sustainability are matters concerning ‘conflicts over values’ (p.78). In the case of Community Garden 1, the contestation of values rested on the scale of community best served by the garden, the individual or the neighborhood.

An example of a group solving the issue of contestations and differing ownership dynamics was demonstrated by Community Garden 3. Community Garden 3 offered both communal and allotment beds for members’ use. Allotment beds were built for individuals who couldn’t attend working bees necessary to maintain communal beds. An explanation for this layout was given by garden member Rachel:

> People come and look after their own plots. Where, if it’s communal working bees, people don't tend to come very often. They are quite happy to let other people do everything.

Allotment owners were observed to behave more communally than non-allotment holders. Because they were paying a plot rental, allotment members took care of them, resulting in an aesthetically pleasing garden overall. Conversely, despite paying rent, allotment members partook in what backyarder Bella called “a gifting economy”, a system of giving away produce. From this community garden’s experience, they assessed that financial outlay does encourage active community garden membership and community building by the sharing of produce.

DISCUSSION AND CONCLUSION

This final results chapter address sub-question three: how do Brisbane-based gardeners conceptualise the geographic place of where they grow and source their food requirements?

Findings reported in this chapter were that gardeners placed discursive emphasis on, repairing the metabolic rift between society and the environment, building community knowledge by teaching how to repair the metabolic rift; and building links with community through normalising techniques and negotiating contestations and ownership dynamics.

The Australian backyard was traditionally regraded as a private space and hidden from view (Head et al., 2004). However, in contrast to the literature, findings in this chapter

illustrated that due to some backyarders' reflexive efforts to not allow the barrier of land ownership and tradition prevent them from taking part in their community building, the private can also become a successful conduit to education for the public.

From the data collected in interview texts, the meaning of 'education' to gardeners in this study is:

> The transmission by the group of social-ecological information about a site to build and preserve knowledge about ecologically based practises of food production for a household. The sharing of knowledge and the material products if this knowledge, food, creates a gifting economy, cementing relationships within the community.

Findings focused on urban food gardeners' rhetoric of the use of urban space to promote connecting to the environment through engaging with food production. By using various communication methods, urban food gardeners are arguably consciously working towards normalising urban food production in Brisbane. Through food growing networks, self-publications and negotiating contestations and ownership dynamics, community links were developed.

In regards to gardeners' actions being placed in the context of Farrugia's (2013) reflexive subjectivity thesis, gardeners' micro-scale reflexive processing does reflect and articulate 'the structural logic of late modernity' (p.13). In this chapter, an example of a community gardener's personal aims being restricted by the governance structure of the garden. The resulting conflict could be interpreted as a contestation between two identities but, what is also interesting is that the conflict led the community gardener to "think outside the box" and reflexively reassess the backyard as having more potential for food production than formally thought. In order to extend the food production site, the community gardener also undertook the illegal practice of verge planting. Interestedly, from a practical point of available space, the verge is not a site where self-sufficiency can be achieved but the community gardener was willing to engage in a form of passive resistance with the 'structural logic' of the Council. In contrast, the community gardener was not willing to neither oppose the garden's convener nor alienate any of the other members since social links were valued. From this example, despite the restrictions to sovereign self-creation by macro social structures, the discursive emphasis was still self-relance but through processes of building/maintaining links to the environment and the community.

This chapter concludes that Brisbane-based gardeners conceptualise the geographic place of where they grow and source their food requirements in a discourse of the 'local place' with discursive emphasis on repairing, and teaching others how to repair, the metabolic rift between society and the environment.

CHAPTER EIGHT: DISCUSSION AND CONCLUSION

The global food system (GFS) has been identified by scholars, food activists and food movements as having numerous limitations in its capacity to make accessible nutritious fresh foods that are not produced by ecologically and socially irresponsible means. Alternative food initiatives (AFIs) have been implemented over the last few decades in the metropolitan centres of developed nations. Activists and scholars propose that AFIs are able to contribute to transforming the food system to one that is underpinned by a reflexive approach to the local place that moves action beyond that of local with discursive emphasis on structural political change at scales of the local, state and global.

Discussion of Findings

Alternative food initiatives in Brisbane, Australia take the form of farmers markets, box schemes, crop swaps, city farms, community gardens and backyard food production. Ten backyard urban food gardeners and nine community urban food gardeners were interviewed using a semi-structured format. Chapter Three concluded that Farrugia's (2013) version of the reflexivity thesis, would be the guide to this exploration of constructions of localism discourses by urban food gardeners in Brisbane. Subjective reflexivity is clarified by Farrugia (2013) as follows:

> The concept of reflexivity captures the operation of macro-social processes and micro-level practices of identity work, making reflexive subjectivities part of a broader terrain of changes in the structures, cultures, and subjectivities that make up modernity (p.13).

Chapter Five, the first of three analysis chapters described and theorised findings according to Farrugia's subjective reflexivity thesis. Given the discussion in Chapter Two and Three that localism discourses can be: unreflexive and defensive; or reflexive, negotiable and inclusive, Chapter Five provided empirical evidence to answer sub-question one: What are Brisbane-based community and backyard gardeners' motivations and legitimisations for growing and sourcing their food?

Brisbane-based community and backyard gardeners were motivated by self-reliance to grow some of their own food. Other food sources were chosen based on trust and knowing where food came from by being able to interact with retailers and /or producers. Based on trust and knowing, food was also sourced from, neighborhood groceries and farmers' markets in their or neighbouring suburbs; and, box schemes linking rural and peri urban producers within a four hour driving radius of Brisbane. Gardeners legitimised all these food sources in a discourse of a dysfunctional global food system with discursive emphasis on, i) the use of biochemicals and mechanisation in industrial agriculture; ii) power relations in the food sector favouring transnational food retailers and processors; and, iii) lack of availability of quality produce at the two main food retailers in Queensland, Woolworths and Coles. Guided by Farrugia's (2013) subjective reflexivity theory, this chapter concluded that gardeners' reflexive use of knowledge of where the limitations lie in the global food system, led some gardeners to what they perceived as the only solution; that of becoming self-reliant by growing some of their food and sourcing the rest of their food requirements from, neighborhood groceries; farmers' markets and, box schemes. Interpretations in this chapter also led to a conclusion that gardeners recognise the metabolic rift brought about by the GFS.

The literature in Chapter Two also highlighted that AFIs underpinned by unreflexive defensive localism discourses had discursive emphasis on personal responsibility, voluntary action, competition and efficiency. Thus, Chapter Six focuses on sub-question two, 'how do Brisbane-based community and backyard gardeners conceptualise the practice of growing and sourcing their food?'

Brisbane-based community and backyard gardeners undertook actions at three different scales and actions varied depending on the scale. At the scale of the garden, gardeners accumulated new knowledge about ecological growing systems and achieved a level of self-reliance. Accumulating new knowledge involved practises of reflexive re-working of European methods of food production using row planting; and, integration of new knowledge in the form of permaculture. Growing sites were theorised in this chapter as where gardeners repair the metabolic rift between society and the environment. In engaging with ecological food production, gardeners also learned to be more reflexive in how they grew food and they achieved a sense of pride in their ability to work with nature.

At the scale of suburb, most gardeners conceptualised acts of, growing their own food as accumulating knowledge which led them to teach others to grow food; and, supporting local retailers as keeping fiscal economies in the suburb building community resilience. At broader scales of the state, gardeners practiced, and envisioned, an ecological based and socially just food economy in order to create ethical livelihoods for themselves and others in the neighborhood. Gardeners also practiced and envisioned that, building non-market based trades into food economies would enable cohorts limited by capital to access fresh foods. This chapter concluded that by growing their own food and engaging with short chain supply systems, enabled gardeners to exercise their reflexivity and make more informed choices on what growing practices to use in the garden and which local food retailers to support. This process developed in gardeners a sense of pride in their ability to reflexively underpin their food provisioning system with their values and new knowledge.

Chapter Seven, the final findings chapter, focused on sub-question three, 'how do Brisbane-based gardeners conceptualise the geographic place of where they grow and source their food requirements?' Gardeners articulated that backyards were for growing food, and teaching others how to grow food using ecological growing systems. The consequence of transformation of gardeners' view of the world through working with nature to grow food, demonstrates that, the role of agriculture is for members of society to 'appropriate the material of nature through labour, in the process transforming the environment and simultaneously their own (human) nature'.

Contribution of the Research

The wider implications of this study are that community gardens and backyard gardens are sites of education and transmission of ecological memory and self-sufficiency at the individual and community level. Community gardens and backyard gardens are also used in building and maintaining identity which has become an act of self-reliance as a consequence of modernity. The role of these sites is to repair the metabolic rift between society and ecological systems, thereby increasing social resilience and mitigating environmental degradation. From the issues reported by urban food gardeners in Brisbane, new forms of governance by Brisbane City Council are needed. Visions and priorities highlighted by gardeners can be used to open up possibilities of a dialogue with

local government on where support of AFIs can be initiated. State and Federal governments in Australia should note that to be truly food secure, sites of individual and community resilience and change need to fostered and supported.

As part of the exploration of reflexivity in modernity, using Farrugia's (2013) reflexive subjectivities thesis showed the reflection of the macro in the subjective reconstruction at the micro-scale of social reality. This is important since the variable subjectivities involved construct varying themes of social reality but interestedly, universal themes of reconnection to the community and identity seem to be the main ways that individuals gain control over their food systems. The literature critiques the individualist nature of AFIs in Europe and the US but scholars agree that AFIs are works in progress. From this thesis the 'work in progress' is that AFI practitioners develop self- reliance before they have any information to transmit and build upon. As some urban food gardeners said, they prefer to lead by example. However, Farrugia's (2013) reflexive subjectivities approach is theorised as free of the 'contradictory search for sovereign self- creation' that has so far driven literature focused on reflexivity of modern subjects (Farrugia, 2013, p.2; Adams, 2006). In contrast to this view by Farrugia (2013), this thesis has found that 'sovereign self-creation', discussed as a theme of self-reliance by Brisbane urban food gardeners, is part of the reflection of the macro since urban food gardeners articulated that they needed to undertake this action due to lack of control of their food provisioning systems through elements of the' metabolic rift'.

Limitations and the Potential for Further Research

This research highlighted that there is further scope for understanding the relations between constructions of subjective politics and that of place. Beyond the limits of time and scale of an MPhil, approaching research on urban agriculture in Brisbane would benefit from a full case study of the multiple groups of differing cultural backgrounds residing in Brisbane. Also, or separately, studies of suburbs of differing socioeconomic levels would give complete view of subjective constructions of the politics of place.

It would also be valuable to undertake a longitudinal study of urban food gardeners who had initiated new modes of domestic food production and distribution for example, Mark's facilitation of crops swap networks and Sharon's verge planting. In following up initiatives

over a year to gauge changes in urban food gardeners' actions and motivations would contribute to the limited knowledge of AFIs and their development in Brisbane. This longitudinal study should also include political and community attitudes and reactions to urban food gardeners' actions and the effect, if any, of actions to the development of food policy in the City of Brisbane.

Conclusion of the Thesis – A Reflexive Approach to the 'Local Place'

Reflexive subjectivities capture the operation of macro-social processes and micro-level practices of identity work. In this conceptualisation of reflexivity in modernity, there is a resonation with claims that 'place' should be viewed as where old and new issues and traditions, and local and global values and knowledge merge. The Local Place is constructed by Brisbane-based gardeners by, practicing ecological food production at community and backyard gardens, supporting neighborhood food retailers and small acreage producers within a four hour radius of Brisbane, and teaching other urban dwellers how to grow their own food. The scale of the local in practice and vision by urban food gardeners ranges from that of the garden to the scale of the nation. The local, in the context of food production and distribution, is termed as any space that is constructed by activities that give food a meaning and purpose based on descriptors of quality and ecologically responsibly and as conduits for knowledge building for communities and maintenance of a socio-ecological relationship. Production and distribution practices occurring at multiple places are legitimised as socially and ecologically responsible and in contrast to the GFS.

Community gardens in this study were sites of education for the surrounding community. However, a major finding in this thesis was that backyard urban food gardeners not only uphold themselves as examples of self-reliance but developed a private space into a public space for the transmission of socio-ecological memory and knowledge to build community links. Gardeners, on achieving a level of self-reliance at the garden then chose to practice and envision ecologically and socially just food economies and teaching others in the community how to repair the metabolic rift. By practicing and envisioning activities beyond the geographical point of the AFIs of community and backyard gardens, a reflexive approach to localism is demonstrated by urban food gardeners in this study.

Subjective reflexivity is demonstrated in the construction of the local place discourse as it embeds discursive themes of issues with GFS which were the placelessness of food production, use of biochemicals and mechanisation in the agriculture sector, and the lack of quality foods at supermarkets. The reflexively re-imagined role of the backyard theoretically positions the backyard as an important site of reparation of the metabolic rift on a community level not only the individual owner of the backyard.

The research question proposed by this thesis: 'Are urban food gardeners in Brisbane, Australia merely growing food or reflexively re-imagining the local place as a response to a dysfunctional food system?'

The answer is that urban food gardeners in Brisbane are not merely growing food but are underpinning their approach to the local with a reflexive localism discourse that challenges the hegemonic food system by engaging with ecological realties and personal sentiments at the garden site; building community knowledge through teaching how to grow food using ecological systems at the scale of the suburb; and, the development of an ecologically based and socially just food economy scaled to include the State.

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THE UNIVERSITY OF QUEENSLAND
AUSTRALIA

APPENDIX A

PARTICIPANT INFORMATION SHEET

What is the role of urban food growers in contributing to a resilient urban food system in Brisbane, Australia?

PURPOSE OF STUDY:

Urban food growing (urban agriculture) is a major source of food for many urban dwellers over the world. There is room for expansion of this type of food supply system so as to serve more individuals who are in need of reasonably priced, fresh, environmentally sustainably produced food. This project will extend knowledge of urban dwellers undertaking urban agriculture in Brisbane. Specifically, to identify the social, economic and political issues involved and those that may prevent the expansion of urban agriculture in this city. This study will also explore the potential for extending the practice of urban agriculture in the future in Brisbane.

PROJECT DESCRIPTION:

I will be conducting face-to-face interviews with urban food growers in Brisbane.

- Duration: The interview should be about 1 hour
- Location: You may choose a location for the interview in any public setting.
- Urban growing sties: With your permission we would like to view your agricultural site.
- Photos: With your permission we would like to take photos of your agricultural site

- Recording: With your permission we would like to record the interview.

BENEFITS OF THE RESEARCH:

- It is hoped that this project will bring more detail to the present state of urban agriculture in Brisbane
- Once we know what is happening in Brisbane then we can inform policy makers on how to assist the community to encourage the expansion of this model.
- We can also confirm and inform community members on the assets of the model and hope to assist in any questions members may have on how to expand the model.

VOLUNTARY PARTICIPATION:

- This process is voluntary. This means you don't have to answer any question you don't want to. Also, if you do not feel comfortable with the interview after it has started, we will stop the interview immediately.
- If you wish to withdraw from the whole project after the interview is over and I have left the premises, please inform me via a phone call (to be acquired) or email at sari.mangru@uqconnect.edu.au and I will delete your portion of the notes and data collected to date.

FEEDBACK TO PARTICIPANTS:

You can request a summary or a copy of the final analysis of the research from this researcher via email at sari.mangru@uqconnect.edu.au

STATEMENT OF CONFIDENTIALITY:

Your participation in this research is confidential. The data will be stored and secured at University of Queensland in a locked cabinet and password protected computer file. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared.

Please note that you may request to be identified at the end of the interview.

FURTHER QUESTIONS:

This study has been cleared by the human ethics committees of the University of Queensland in accordance with National Health and Medical Research Council's guidelines. You are free to discuss your participation in this study with project staff (see below). If you would like to speak to an officer of the University not involved in the study, please contact the Ethics Officer on 07-3365 3924

RESEARCHER: Sari Mangru

SUPERVISORS: Dr Carol Richards and Dr Peter Walters

SCHOOL: School of Social Science

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APPENDIX B

URBAN AGRICULTURALISTS IN BRISBANE, QLD

Interviews and background to development of semi-structured research instrument

THESIS QUESTION

Are urban food gardeners in Brisbane, Australia merely growing food or reflexively constructing the local place as a response to a dysfunctional food system?

Research sub-question 1: What are Brisbane-based community and backyard gardeners' motivations and legitimisations for growing and sourcing their food?

Interview questions:

1. How much of the food you grow is part of your weekly meals? From where else do you source your food?
2. Are you part of a food grower's/food network and if you are can you tell me about it?
3. Can you talk about changes you have seen in urban food growing over the years? (*Would include - Why do you think more people are not growing their own food*)
4. What do you see as the role of community gardening/domestic food production in city food provisioning?
5. Do you or your food growing networks have contact with government officials? What is the nature of these relationships? Are they effective?

6. How do you think the government could contribute to the urban food growers system?

7. How do you view the current commercial model of food supply?

8. Do you think supermarkets have a role to play in the food production system?

Highlight and Explore:

- Knowledge claims
- Language used
- How have they engaged with critiquing it?
- How have they gone against the culture as in their original culture/family/friends culture?
- Visions of new system are composed of and aims

B. What does this mean to them?

Highlight and Explore:

- Control
- Address Health issues
- Community building
- Understanding of natural world
- Social justice concerns and practices
- Environmental justice concerns and practices
- Attitude/practices towards changing State and Local government food and agriculture policy.

Research sub-questions 2) and 3):

- How do Brisbane-based community and backyard gardeners conceptualise the practice of growing and sourcing their food?
- How do Brisbane-based gardeners conceptualise the geographic place of where they grow and source their food requirements?

Interview questions:

9. How would you describe the activity/experience of producing your own food? (*Will also involve – what do you call what you are doing?*)
10. How and why did you first become involved in growing food?
11. How often do you attend to the garden/backyard and how do you prioritise it?
12. How have your motivations changed over the years/months of food production? How do you remain motivated?
13. What have you learned/learned to appreciate through growing your own food, for example (*only offered if asked to clarify question*) understanding environmental challenges in food production

A. Why/How have/are they constructing meaning of their new personal system?

Highlight and Explore:

- Experience of it
- Methods of practice
- Learning in order to track the effect of food production on reflexivity
- Interaction with others/the group – constructionism

B. How does this affect their views?

Highlight and Explore:

- Values/Motivations

C. What are their barriers, natural and otherwise?

Highlight and Explore:

- Group
- Personal limits
- Government
- Nature

In terms of reflexivity-

- How do gardeners merge local issues with global issues?
- How have they gone against the culture as in their original culture/family/friends culture?
- Values/Motivations

APPENDIX C

CONSENT FORM

What is the role of urban food growers in contributing to a resilient urban food system in Brisbane, Australia?

I consent to participate in the above research project as described in the Information Sheet, which I have read and understood. I consent to have a recording made of this interview.

I understand that my participation is voluntary, that I can end the interview or the recording of the interview at any time without penalty and that upon my request the information given during the interview will be deleted.

I understand that the research team will protect the confidentiality and privacy of any information that I give ‘’off the record’’.

Name: ____

Signature: ____

Date: ____________________________________

APPENDIX D

Names have been blocked out to protect the privacy of Derek's partner.

Sustainable Living in a Rental Property

'Even in a rental property, we can live a sustainable life within a functional community.'

Do I have the power to make a change? *Where shall I start?* *How sustainable can I be?*

This is our sustainable living story. We would like to share it with you and hope it provides inspiration, information and answers to some of your questions. Bear in mind that we are still on our journey to better quality of our lives.

OUR BACKGROUND

Hi and welcome from [ ]. We are both from the Czech Republic. [ ] profession is a Sustainable Building Engineer, designing buildings in the most energy-efficient and sustainable way. [ ] works in childcare, helping to bring up a new generation of bright and environmentally-conscious children. We both love and are passionate about what we do.

ARRIVAL IN AUSTRALIA

When we arrived in Australia four years ago, we travelled around and quickly found out how vast, beautiful and diverse this country is. After a few months travelling, we arrived in Brisbane and [ ] started to work as a sustainable building design engineer, while [ ] looked for a rental property. Our preferences were driven by the functionality and simplicity of a small flat, close proximity to work, opportunity for growing our food and creating a local community. And we found it – a unit in a block of five units with a big backyard in New Farm.

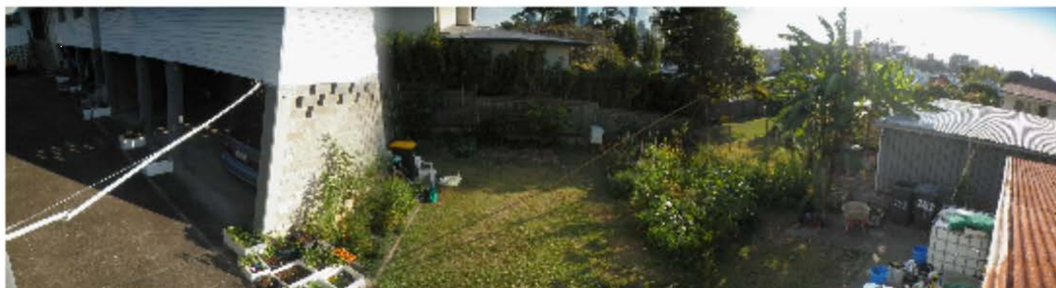
HOUSE

Our simple one bedroom unit has windows on the north and south sides, which provide plenty of daylight and perfect cross-ventilation, so no air-conditioning is required. Good solar access delivers heat during colder days and eaves provide shade during hot periods. Moreover, overlooking greenery and gardens gives us a visual connection with our external environment.

Our energy consumption is very low (2kWh of electricity and about 7kWh (20MJ) of natural gas per day- annually around 3300kWh all together), several times lower than an average Australian household (13400kWh). Purchasing 100% Green Power not only mitigated our carbon emissions, but is easy and convenient to do compared to installing PV on the roof of a rental property, and does not cost a fortune (extra 5c per kWh which is about $9 per quarter). We manage to reduce electricity consumption to a minimum by choosing energy-efficient appliances (eg: using a laptop rather than a desktop PC) and turning them off when not in use.

For a few days during hot summer, portable fans provide acceptable thermal comfort. Hot water is heated by a natural gas boiler. The old type has an ignition light ON all the time which consumes about a third of our total gas consumption. So our plan is to install a solar hot water system – the sun provides over 80% of energy needed - and turn the inefficient gas heater off. We expect to reduce our energy consumption down to 1300kWh per year, which is only one tenth of an average household) with nearly zero carbon emissions and without sacrificing comfort and convenience.

EDIBLE GARDENS



Our vegetable garden comprises of four veggie beds, which was originally a pile of

rubbish. Soil conditions progressively improved by adding compost (food scraps from the kitchen, grass clippings, leaves), mushroom compost and sugar cane mulch. We gain plenty of knowledge and advice from Brisbane Organic Growers Inc. (BOGI) which we are members and would strongly recommend to everyone who is generally interested in gardening. On our garden we grow all sorts of vegetables (tomatoes, capsicums, beans, green veggies and herbs, etc), which provide us with

more than we can eat, thus not buying any vegetables, but sharing garden production in our local community. More importantly, gardening is so relaxing if you want clear your mind and brings self-satisfaction.

Our front yard is becoming a fruit forest, growing mulberries, bananas, pawpaw, passionfruit and chokos on the fence. We utilise a concrete yard for growing potatoes in plastic bags, capsicums in foam boxes and fruit trees in pots. We also established a vertical garden where we are growing mainly herbs and strawberries in milk-containers placed in the gaps of a block wall. Our water-wise garden rarely uses town water, instead using collected rainwater and grey-water from our washing machine in wheelie bins, and then using plenty of mulch.

As a welcome addition to our garden we have chickens, bees and a worm farm. Chickens bring a lot of fun, especially for kids, eat kitchen scraps and leftovers, while producing great fertilizer for the garden and tasty golden yolk eggs. Hard-`working bees are amazing to watch flying in and out, bringing various coloured pollen, providing pollination for our and neighbourhood gardens, and also produce amazingly delicious honey. On a small block of land, Brisbane City Council allows people to keep, free of charge, up to six chickens (no roosters) and up to two bee hives, which need to be registered with DPI for a minimum fee. Both chooks and bees are easy to keep – it's not a rocket science! We learned from the beginning and all our girls are doing well. Worms in foam boxes eat food scraps and provide worm wee – a brilliant fertilizer, as well as humus for the garden and pot plants.

CREATING LOCAL COMMUNITY

Our local community comprises of people not only living in our block of units, but also in the local area. Garden veggie and fruit, fresh eggs, homemade bread and cakes are frequently shared and swapped within the community. Also socialising, such as having BBQs in the garden and sharing stories is a brilliant way to socialise and have a fun. We also engage local shops, such as fruit and veggie shops, where we collect scraps for the chickens and composting, the coffee shop where we collect coffee grounds for growing oyster mushrooms, as well as a garden fertiliser. All this waste would otherwise go to landfills and create greenhouse gas emissions. Our fresh eggs and herbs are just a small thanks to very kind shop owners. Whenever we need, we buy stuff from local small shops and farmers at Northey Street Organic Markets, avoiding supermarkets.

Bringing a sense of belonging, knowing our neighbours and seeing a spark in their eyes and a smile is a very important aspect of a real local community for us.

LIFESTYLE

Our friends tell us that it's incredible how we are living such a sustainable lifestyle in the city centre. Living a sustainable life doesn't mean only reducing energy consumption, recycling and growing our own food, but more importantly living a conscious life 'here and now', caring about people around us, as well as the Mother Earth. We live in such exiting times, so with positive thinking and imagination, along with an open heart, people can achieve incredible things.

LESSONS LEARNT

- Reduce – Reuse – Recycle – Repair – Refuse
- Purchasing 100% Green Power is convenient and does not cost a fortune
- Growing your own food in a small garden bed, or even in a pot, provides not only tasty veggies and fresh herbs, but also fun, relaxation and self-satisfaction
- Everything should have a multiple purpose, eg. Chickens eat food scraps, which produce fertiliser and eggs
- Functional local community brings a sense of belonging and connection
- If you need advice or help, please ask us, as we are here to help you if possible

INTERESTING LINKS

Brisbane Organic Growers Inc. www.bogi.org.au
Northey Street City Farm & Markets www.nscf.org.au
Chickens www.brisbane.qld.gov.au/laws-permits/laws-and-permits-for-residents/animals-and-pets/chickens-and-poultry/index.htm
Bees www.honeybee.com.au/beeinfo/assn.html, http://www.daff.qld.gov.au/27_10965.htm
Green Dean – Permaculture & Urban Farming www.greendean.com.au
Ecological Calculator www.org.au/footprint/calculator

RECOMMENDED

Documentaries; www.topdocumentaryfilms.com & www.youtube.com
Water: The Great Mystery; The Science of Miracles, by Gregg Braden; Vanishing of the Bees; No Impact Man; The Secret Life of Plants; Zeitgeist – Moving forward

Films; Celestine Prophecy; City of Angels; Peaceful Warrior

Books; Anastasia – Vladimir Megre; The Little Soul and the Sun – Neale Donald Walsch

You are welcome to visit our sustainable home.