

Exploring the Relationship between Modes of Governance and Collective Empowerment  
of Grassroots Innovations in Agro-Food Sustainability Transitions: A case study of urban  
community gardens in the Bronx, New York City



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Abstract:

Capitalist industrial food systems have been widely recognized as unsustainable and have invoked calls for a sustainability transition towards a more sustainable food system (El Bilali, 2019). A systemic challenge within this industrial food system is unequal power dynamics between government, corporate actors, and civil society. Grassroots innovations offer opportunities to help (re)balance power dynamics by cultivating collective empowerment and leading social change. However, grassroots innovations have been recognized as being vulnerable to capture and translation effects by dominant regime actors (Pel, 2015). This suggests that governance dynamics be further investigated to understand if certain modes of governance influence grassroots innovations' manifestations of collective empowerment. In this research, urban community gardens (UCG) in the Bronx, New York City, are taken as a case for grassroots innovations. Using a case study approach, four UCGs were empirically investigated to understand the relationship between modes of governance (Driessen et al., 2012) and collective empowerment (Hur, 2006). Results found that self and decentralized governance were the most common modes of governance that characterized UCGs. While there was considerable evidence of short-term government containment through top-down formal regulations (i.e., decentralized governance characteristics), this did not impede UCGs' ability to manifest collective empowerment in the long-term. UCGs countered containment mechanisms by acting in solidarity with other civil society organizations and performing various acts of contestation. Findings suggest that characteristics of self-governance (i.e., bottom-up social learning, tailor-made goals, and self-crafted rules) contributed to all core components of collective empowerment, whereas characteristics of decentralized governance (i.e., uniform goals, formal rules, top-down interactions) only contributed to some components of collective empowerment. This research yields important societal implications which may help grassroots innovations strengthen their collective action strategies and more successfully contribute to a sustainability transition towards a more sustainable agro-food system.

### Abbreviations:

BLT - Bronx Land Trust

CEA - Critical Environmental Areas

CS - Civil Society

DOT - Department of Transportation

IRS - Internal Revenue Service

MOA - Memorandum of Agreement

MoG - Modes of Governance

NYBG - New York Botanical Garden

NYC - New York City

NYCCGC - New York City Community Garden Coalition

NYELJP - New York Environmental Law and Justice Project

NYRP - New York Restoration Project

NYS - New York State

RRHVG - Ruth Rea Howell Vegetable Garden

SWS - Sun, Wind, Shade Oasis Garden

TPL - Trust for Public Land

UCG - Urban Community Garden

US - United States

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## Chapter 1: Introduction

### 1.1. Background

The dominant food system in the Global North is characterized by neoliberal capitalism and the accompanying paradigm of “industrial production methods, free-market trade, and export-oriented agriculture [which] are supported and promoted by multi-national corporations and government policy” (Laforge et al., 2016, p. 664). This industrial food system is unsustainable as it privileges short-term profit over long-term sustainability (Magdoff et al., 2000 as cited in Constance et al., 2014); contributes to animal exploitation and biodiversity degradation (Curry, 2011); fuels unequal relations of power within food supply chains (Jones et al., 2010; Kalfagianni & Skordili, 2019); fails to effectively address food insecurity and malnutrition (Foresight, 2011 in El Bilali, 2019); and instills neoliberal consumer subjectivities that reproduce capitalist hegemony (Levkoe, 2011; Harris, 2009). The COVID-19 pandemic has especially exposed vulnerabilities within this food system (Altieri & Nicholls, 2020). Its unsustainability has been widely recognized and calls for a sustainability transition of agro-food systems<sup>1</sup> have flourished (Rossi & Brunori, 2010; El Bilali, 2019).

A sustainability transition is a “long-term, multi-dimensional and fundamental transformation process through which established socio-technical systems shift to more sustainable modes of production and consumption” (Markard et al., 2012, p. 956). Specifically with respect to food, agro-food sustainability transitions encompass implementing changes that move society towards sustainable agriculture and food systems (El Bilali, 2019). Sustainable food systems should aspire to “regenerative ecologies, economic localization and equitable access to healthy food” (Kalfagianni & Skordili, 2019, p. 73) while having characteristics of decentralized and democratic engagement which recognize, respect, and adequately compensate food laborers, and which encourage relationships between consumers and farmers (Feenstra, 2002). Some scholars have argued that this agro-food transition has already begun as many alternative food practices exist today (Galt et al., 2014; Rossi & Brunori, 2010), many of which exhibit alternative capitalist and non-capitalist elements with respect to economic configurations and state relations, among other dimensions (Koretskaya & Feola, 2020). Some examples of alternative food practices include organics, fair trade, Slow Food, farmers markets, and community supported agriculture (Constance et al., 2014; Kalfagianni & Skordili, 2019).

Alternative food practices, particularly through community gardening schemes in urban and rural areas, have been recognized as part of this agro-food transition for their ability to safeguard ecosystem services, promote sustainable practices, self-organize communities (Celata & Coletti,

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<sup>1</sup> The term *agro-food systems* is used throughout this research as it has been applied in other sustainable food literature (El Bilali, 2019; Rossi & Brunori, 2010) however, it is important to acknowledge that *agri-food systems* has also been used in this literature to discuss the same concept (Kalfagianni & Skordili, 2019; Koretskaya & Feola, 2020).

2018), and increase urban food security (Feola et al., 2020). Community gardens can be characterized as “differential spaces” that do not conform to hegemonic space and which “disrupt the homogeneity of society” because they embody alternative understandings of how to experience and structure the social world (Eizenberg, 2013, p. 7). For example, the mission and operation logics behind urban community gardens (UCGs) largely support ‘solidarity economies’ as opposed to mainstream capitalist economies. Here, a solidarity economy includes “the use of resources based on needs, management strategies involving democratic processes of cooperation and participation, value placed on collective knowledge and collective work, equal distribution of benefits, and making use of natural resources without depleting them” (Gibson-Graham, 2006, p. 97). These qualities differ from mainstream capitalist economies which are driven by principles of competition, individualization, and commodification of human and non-human beings (Feola, 2020). Moreover, even the spatial expressions of UCGs differ from dominant neoliberal representations of space (Eizenberg, 2013); the “personalized, independently-created, and constantly changing ‘participatory landscapes’ [of community gardens] contrast sharply with the more uniform and refined aesthetics of institutionalized landscapes, such as city parks” (Saldivar-Tanaka & Krasny, 2004, p. 409). Taken together, community gardens have been recognized as grassroots innovations<sup>2</sup> for their divergence from mainstream institutions (Gernert et al., 2018) and their prioritization of local values and beliefs over profit (Seyfang & Smith, 2007; Seyfang & Longhurst, 2016 in Marletto & Sillig, 2019). Although grassroots innovations usually begin as local niche projects, they have potential to impact society at large through the diffusion of ideas, practices, and technologies, thus playing an important role in sustainability transitions (Seyfang & Smith, 2007). Even if mainstream diffusion is not realized, “the niche nevertheless stands as a symbolic embodiment of alternatives” (Seyfang & Smith, 2007, p. 594) and therefore promotes a ‘politics of possibility’ (Gibson-Graham, 2006) for a more sustainable food system.

The focus of this research is on urban community gardens, specifically in the Bronx, New York City (NYC). UCGs have been recognized as sources of empowerment for social change (Pudup, 2008; Reynolds & Cohen, 2016; Eizenberg 2013; Saldivar-Tanaka & Krasny, 2004). For example, at the individual level, UCG schemes have empowered people politically by exposing them to socio-urban issues via garden membership and motivating them to politically engage in their locales (Eizenberg, 2013; Reynolds & Cohen, 2016; Saldivar-Tanaka & Krasny, 2004). At the community level, UCGs have mobilized people into social networks (Ghose & Pettygrove, 2014) and coalitions (Eizenberg, 2013) which have helped community groups leverage power to protect gardens from private enclosures. In fact, in NYC, UCGs have fueled city-wide political action against municipal governments by advocating for rights to public spaces for marginalized communities to organize, mobilize and seek empowerment (Staeheli et al., 2002). Finally, at the

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<sup>2</sup> Grassroots innovations is used throughout this research as it is the most used term in sustainability transition literature. However, it is important to acknowledge that other terminology, such as grassroots initiatives (Celata & Coletti, 2018) and grassroots movements (Ioannou et al., 2016) are also used in literature to discuss community gardens.

food system level, UCGs have challenged neoliberal capitalism by demonstrating solidarity with alternative food practices and enabling alternative subjectivities to emerge (Tornaghi & van Dyck, 2015). They have also promoted environmental justice (Ferris et al., 2001) and provided people with the opportunity to grow their own nutritious food and alleviate disproportionate food access (Earth Justice & New York City Community Garden Coalition, 2020). These examples may be understood as manifestations of empowerment.

## 1.2. Problem Definition

If UCGs are to continue promoting alternative food practices and successfully contribute to an agro-food sustainability transition, they need to be aware of the ways in which dominant food regime actors interfere and impede their ability to manifest empowerment and champion social change. UCGs need to be prepared to navigate unequal power dynamics with food regime actors such as multinational corporations and national governments.

Although there have been many grassroots innovations which support alternative food practices, these innovations often focus on “single food issues” (Kalfagianni & Skordili, 2019, p. 7) instead of addressing root problems (Levkoe, 2011). For example, food system reforms such as certification initiatives (e.g., fair trade, organic), while indicative of positive directions towards more sustainable processes, “do not alter the fundamental balance of power within the food system, and in some cases may even exacerbate inequitable power relations” (Holt Gimenez & Shattuck, 2011, p. 132). A lack of attention to systemic challenges in the industrial food system, namely, the unequal power dynamics between state, corporate and civil society institutions, hinders any success at bringing about an agro-food sustainability transition.

Through neoliberal practices, which function by removing state regulations in favor of the free market, privatizing public resources, and reducing public expenditures (Levkoe, 2011), favorable conditions for market and state actors in the industrial food system have been forged (Laforge et al., 2016). While neoliberalism was being rolled out across the developed world in the 1980s and 1990s, governments relinquished their responsibilities to meet basic human needs, putting pressure on civil society organizations and the private sector to fill this gap (Levkoe, 2011; Reynolds & Cohen, 2016). This was especially apparent in the UK ‘big society’ discourse whereby the state encouraged ordinary citizens to take responsibility for their own individual welfare needs, arguing that this shift would empower communities, redistribute power, and promote a culture of volunteering (Kisby, 2010). Yet this paradigm creates a profound paradox: by cutting welfare support, states claim they are helping to empower communities and redistribute power ‘to the people’ yet, by promoting free market mechanisms, the state favors market-based actors (over civil society actors) and continues to maintain their own power by regulating the free-market. Avelino & Wittmayer (2016) point out that “this is one way in which the formal logic of the market and state continue to prevail, despite original intentions to increase the role of the informal community” (p. 641).

Whenever there is conflict between producers' or consumers' rights and corporate rights, "governments, even the most democratic, invariably side with the latter, underwriting agribusiness with enormous subsidies, taxing them in ways that fail to reflect true costs and turning a blind eye to effective monopolies" (Curry, 2011, p. 189). Beyond political and market power, governments, and corporations shape food systems through subtle modes of 'governmentality' which frame citizen subjectivities by influencing social norms and discourses "in ways that legitimize the role of the nation-state and the free market as the dominant domains of social organization...which serve to marginalize family, community and civil society as sites of agency" (Laforge et al., 2016, p. 665). Through various cooptation and/or containment mechanisms, these actors devalue alternative food practices by characterizing them as doomed to fail, as 'niches' that should be incorporated into the dominant system, or as dangerous or unsafe (Laforge et al., 2016).

These mechanisms support Pel's findings that grassroots innovations are often prone to 'capture' and 'translation' by dominant regime actors which leads to only marginal innovations (2015). In this context, capture is when grassroots innovations are neutralized and considered "insufficiently transformative or even perverting" by incumbent actors while translation is when innovations undergo transformations that are influenced by actions, ideas, and objects of dominant actors (Pel, 2015, p. 3). In other words, grassroots innovations, which attempt to bring new ideas, actors, or objects to reality, are often confronted by regime actors who modify their innovations in ways that change their original intention and trajectory. These "entrenched cognitive, social, economic, institutional and technological processes lock us into trajectories" and limit the potential for sustainable alternatives to succeed (Seyfang & Smith, 2007, p. 588). For example, some scholars have argued that the organic food movement has undergone capture and translation effects by the industrial food system it originally meant to oppose (Curry, 2011; Constance et al., 2014).

Various manifestations of capture/translation tactics within community gardens have been recognized within environmental innovation literature. Stemming from feelings of mistrust for the government, van der Jagt et al. (2017) found that some community gardens in the European Union purposefully kept their distance from municipalities to improve the legitimacy of the garden group locally. Celata & Coletti (2018) found that while most community gardens in Rome seek some sense of legitimacy and recognition from political institutions, working with municipalities invites the risk of cooption and subordination. Finally, Eizenberg (2013) recognized that while institutionalization may give UCGs in NYC more "conventional power, security, and stability" it also required these gardens to adjust and "harness thinking and action to dominant ways of thinking and acting" (p. 166).

So, if UCGs are to successfully contribute to an agro-food sustainability transition, it is important to investigate how government and corporate actors exercise power tactics and how this subsequently influences gardens' manifestations of empowerment and contributions to sustainable



social change. Each UCG in NYC is distinct in that it reflects different actor configurations, institutional features, and socio-cultural-political identities. This dynamic of actors, institutions and values make up the garden's governance structure. UCGs' modes of governance (MoG) is an important variable when considering if they are likely to succumb to regime power tactics as the extent of their involvement with government and/or corporate actors may make them more vulnerable to capture, translation, modes of governmentality, cooptation, and/or containment mechanisms. While it is important to connect with regime actors to pursue goals related to sustainable development (Seyfang & Smith, 2007), finding a delicate balance is key to ensure the grassroots innovation's success. As different governance arrangements may require stakeholders to draw on, and develop, different types of skills (Zimmerman, 1995), it is important to understand how MoG influences UCGs' manifestations of empowerment to identify certain strategies that are utilized to counter unequal power dynamics. Thus, by understanding the relationship between governance and empowerment, UCGs, and grassroots innovations more broadly, will be able to shape their operation strategies moving forward so they can more successfully navigate unequal power dynamics with regime actors and thus champion their innovations.

### 1.3. Research Objective & Research Questions

The objective of this research is to contribute to grassroots innovations literature related to governance and empowerment by empirically examining if and how UCG modes of governance influence manifestations of empowerment. Due to the collective nature of UCGs, which bring together diverse groups of individuals and organizations, *collective empowerment*<sup>3</sup> is explored specifically in this research. Here, UCGs are taken as a case of grassroots innovations. To structure this research, the main research question and subsequent research questions were as follows:

#### **What is the relationship between an urban community garden's mode of governance and their manifestations of collective empowerment?**

1. Which modes of governance characterize UCGs in the Bronx?
  - a. Who are the (organizational) actors involved in UCGs in the Bronx?
2. In what ways do UCGs interact with government actors?
3. In what ways is collective empowerment manifested by UCGs in the Bronx?
4. To what extent do modes of governance influence UCGs' manifestations of collective empowerment?

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<sup>3</sup> For a detailed description of collective empowerment, see section 2.2.

#### 1.4. Knowledge Gap(s), Scientific Relevance, and Societal Implications

This research is innovative and contributes to several theoretical knowledge gaps. First, this research conceptualizes collective empowerment by considering both the strategic (e.g., pooling financial and capital resources, acquiring knowledge) *and* dispositional manifestations of empowerment (e.g., developing critical thinking and social cohesion skills) of grassroots innovations which contribute to sustainability transitions. A preliminary literature review of grassroots innovations for sustainability transitions revealed that studies related to power have been largely fragmented (Avelino & Wittmayer, 2016; Köhler et al., 2019; Raj et al., 2020). Part of this fragmentation encompasses the notions that ‘empowerment’ has been conceptualized to a limited and often superficial extent, and that scholarship tends to primarily analyze empowerment as an overt exercise, stressing only its strategic and instrumental character (Raj et al., 2020). Subsequently, grassroots innovations literature lacks an understanding of the non-strategic, dispositional attributes that are activated by grassroots innovations, such as their “potential to reflect on the social practices, hierarchies and institutions that are involved in their process of identity construction and development of socio-technical solutions for sustainability” (Raj et al. 2020, p. 23).

Next, this research examines governance, an under-developed component of sustainability transitions (Patterson et al., 2017) and, more specifically, agro-food sustainability transitions (El Bilali, 2019). This paper examines often neglected areas of research related to the power-laden nature of marginalized groups (Patterson et al. 2017), the agency of civil society and grassroots social movements in agro-food sustainability transitions (El Bilali, 2019), and how different actors, especially civil society, exercise power in transitions (Avelino & Wittmayer, 2016). Moreover, it also takes into consideration both the dynamic process *and* outcomes of collective empowerment which differs from existing literature on neoliberal urban governance and state-civil society relations that often characterize empowerment as only an end-product (Roy, 2010). Since diverse actors interactively collaborate in UCGs, this research strengthens understandings of power dynamics in interactive governance schemes which is usually ignored because “interactive governance arenas are not perceived as conflict-ridden battlegrounds where political actors struggle over the authoritative allocation of societal values” (Torfing et al., 2012, p. 51). Finally, this paper expands the geographical scope of empirical research on grassroots innovations for sustainability transitions, especially with respect to empowerment, which is concentrated in Europe (Raj et al., 2020).

This research has considerable societal relevance as it yields practical implications for grassroots innovations and government actors to shape their governance strategies moving forward. Being aware of the ways in which governments use their power to diminish grassroots innovations and subsequently how these tactics influence collective empowerment, helps societal actors identify how grassroots innovations utilize their agency to challenge regime actors. Identifying the unique strengths and skills that grassroots innovations draw on to contest regime power tactics may help

future grassroots innovations succeed in their quest to bring niche ideas to fruition and encourage them to stay optimistic if they become subject to capture/translation effects. Moreover, by observing and analyzing the relationships between governance characteristics and collective empowerment, it is possible to identify governance practices that (dis)empower grassroots innovations. These insights have potential to push sustainability transitions forward as grassroots innovations are enabled with knowledge, skills, and governance strategies that can improve their relationships with regime actors so that together they may advance sustainable development goals.

## Chapter 2: Theory & Concepts

To better understand the relationship between empowerment and governance, a theoretical understanding of these concepts within the context of grassroots innovations in sustainability transitions is needed.

### 2.1. Governance

Sustainability transitions are inherently political processes because the actors involved hold different perspectives about their desired transition direction (Köhler et al., 2019; Meadowcroft, 2011). This suggests a theoretical background of governance is crucial for understanding transitions more holistically. There are numerous conceptualizations of governance, but it can be generally understood as “the formation of a collective will out of a diversity of interests (politics), a system of rules and norms shaping the actions of social and political actors (polity), or a political steering of social and economic relations based on...policy instruments...(policy)” (Torfing et al., 2012, p. 13). In other words, governance encompasses “the structures, processes, rules and traditions that determine how people in societies make decisions, share power, exercise responsibility and ensure accountability” (Patterson et al., 2017, p. 3). Conceptualizations of governance are complex and may exist in many different arrangements based on different socio-political contexts. Subsequently, governance should be understood as flexible and likely to shift over time (Driessen et al., 2012; Lange et al., 2013).

In recent decades, academic literature on governance, especially environmental governance, has recognized the declining power of central government and the rise of non-state actors as critical players in policy making processes (Grin et al., 2010; Driessen et al., 2012; Torfing et al., 2012; Ghose & Pettygrove, 2014; Lange et al., 2013). Torfing et al. (2012) highlight that the neoliberal shift towards privatizing public enterprises and commercializing the public sector paved the way for more interactive governance schemes as more non-state actors began to provide essential resources to the public. However, it is important to note that while environmental governance has generally shifted towards non-hierarchical forms, this does not mean the state is devoid of power. In fact, non-hierarchical modes of governance operate in a “shadow of hierarchy” where the state remains a central actor (Lange et al., 2013, p. 407).

There are many typologies of governance arrangements that exist in the literature, however Driessen et al. (2012) present a comprehensive conceptual framework (Figure 1) for understanding the most common modes of governance (MoG) as a benchmark against which transitions can be observed<sup>4</sup>.

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<sup>4</sup> It is important to note that the modes of governance typology by Driessen et al. (2012) represents archetypes and thus simplified representations of complex social arrangements. As such these archetypes may not exist in their purest form and instead may reflect more hybrid and/or coexisting modes of governance.

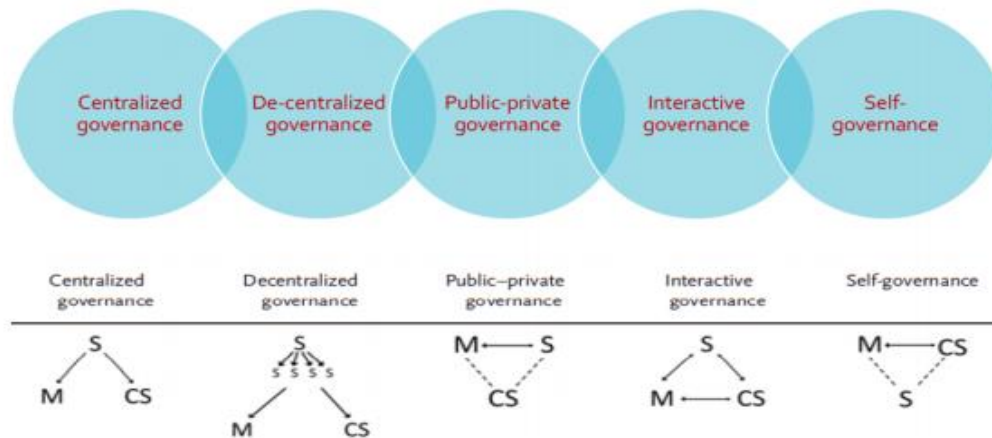


Figure 1: Modes of Governance

Note: S=State Actors; M= Market Actors; CS= Civil Society Actors

Source: Driessen et al. (2012)

In this modes of governance framework, the power of actors is clearly distinguished: from one end of the typology spectrum, the State holds the most power and takes a dominant role in governance decisions, while on the other end of the spectrum, civil society and/or the private sector holds the most power and takes a dominant role in governance decisions. More specifically, centralized governance and decentralized governance afford the most authority to the central or regional/local governments, respectively, while the market and civil society are the recipients of the government’s incentives and subjects of state coercion; public-private governance reflects cooperation between government and market actors in which competition and corporatist formalized governing arrangements dominate while civil society plays a more background role; interactive governance describes an equal powerbase among civil society, state, and market actors where partnerships play a key role; and in self-governance autonomy lies with market and/or civil society where they can determine the involvement of other stakeholders (Driessen et al., 2012).

## 2.2. Collective Empowerment

There is no universally accepted definition of empowerment (Boehm & Staples, 2004), however, the following definitions give rise to a general understanding of this phenomenon. Oladipo (2009) defines empowerment as “the expansion of freedom of choice and action; it involves increasing one’s authority and control over the resources and decisions that affect one’s life” (p. 120); Peterson & Zimmerman (2004) define empowerment as “an active, participatory process through which individuals, organizations, and communities gain greater control, efficacy, and social justice” (as cited in Rothman et al., 2019); Moser (2003) defines empowerment as “expanding assets and capabilities of poor people to participate in, negotiate with, influence, control, and hold accountable institutions that affect their lives” (as cited in Alsop & Heinsohn, 2005, p. 35); Ibrahim & Alkire (2007) define empowerment as the improvement of agency (as cited in Pelenc et al.,

2015); and Alsop & Heinsohn (2005) define empowerment as “enhancing an individual’s or a group’s capacity to make choices and transform those choices into desired actions and outcomes” (p. 5).

Based on these definitions it becomes clear that empowerment is often conceptually related to increasing control. At first glance, these definitions may give the impression that empowerment is synonymous with the conceptualization of power, however, these concepts are distinct constructs (Zimmerman, 2000). Although a full theoretical comparison between power and empowerment is beyond the scope of this research, it is important to highlight that power may be distinguished into different types of relations between actors, understood as having ‘power over,’ ‘more/less power to,’ or ‘different power to’ (Avelino & Wittmayer, 2016). With this perspective, Liz Kelly (1992) observes that empowerment refers to a generative sense of power, that is ‘the power to’ and it is achieved by increasing the ability to resist and change ‘power over’ (as cited in Rowlands, 1995).

Conceptualizations of empowerment extend across the individual, group and/or community level and can be understood as both a process and an outcome (Zimmerman, 2000; Hur, 2006; Reininger et al., 2001). Focusing on the group and/or community level, collective empowerment may be understood as “the processes by which people become aware of their own interests and how those relate to those of others, in order to both participate from a position of greater strength in decision-making and actually to influence such decisions” (Rowlands, 1995, p. 102). Another way to understand collective empowerment is by considering it as entailing “people getting organized around common interests and taking joint action to achieve shared goals and objectives, both by drawing on internal resources within the community and by influencing external institutions and organizations” (Boehm & Staples, 2004, p. 271).

After a comprehensive literature review on empowerment across political science, social welfare, education, health, and community psychology disciplines, Hur (2006) identified the main components of collective empowerment to be collective belonging, involvement in the community, control over organization in the community and community building<sup>5</sup>. Hur (2006) explains that the process of empowerment (Figure 2) begins with the existence of social disturbances that create feelings of powerlessness and cause agents to recognize disadvantaged and oppressed groups. Next, conscientizing can be understood as a process whereby actors critically reflect on how local norms, social values, and cultural practices shape individuals’ lives and how these forces can be changed to bring about improved living conditions (Ibrahim, 2017). Said differently, conscientization is about developing an understanding of one’s social environment that leads to action (Rowlands, 1995). When people have a deeper awareness of their limited power and the potential that exists to change these circumstances, they strengthen their ‘power within’ (Parpart et al., 2003 as cited in Hur, 2006; Rowlands 1997 as cited in Ibrahim 2017) by developing knowledge and fostering confidence in the possibility of change (Hur, 2006). This type of

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<sup>5</sup> For a full discussion of these concepts, see section 3.3.3.

awareness building is a precursor for supporting and mobilizing collective action and social innovation at the grassroots level (Eizenberg, 2013; Ibrahim, 2017). The mobilizing stage is where people join together and organize collective action in order to bring about change (Hur, 2006). Comeau (2010) defines collective action as “a situation where the interests of several social actors converge, thus leading to a voluntary engagement in a shared project in favor of a chosen cause” (as cited in Pelenc et al., 2015, p. 229). This collaborative stage may encompass actors pooling resources and capabilities (Pelenc et al., 2015) and reconciling visions of social change (Ibrahim, 2017). Maximizing can be understood as when power is shared with the populace and when “empowerment reaches the point that the people feel able to utilize their confidence, desires, and abilities to bring about ‘real change’” (Hur, 2006, p. 530). Finally, the outcome of this process is overcoming social oppression, achieving social justice, and creating social change.

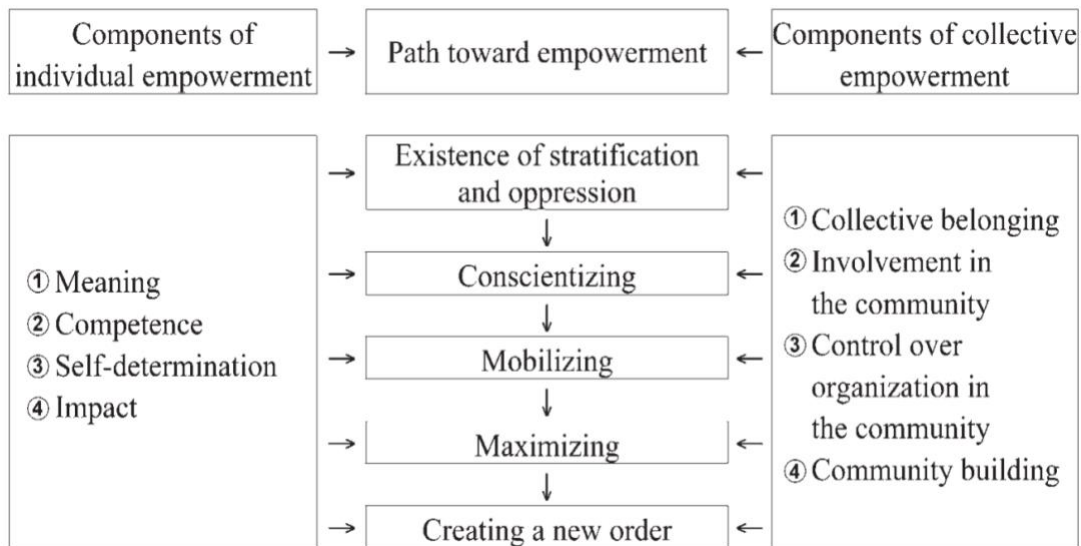


Figure 2: Path towards and components of empowerment

Source: Hur (2006)

While the *collective level* is the focus in this research (right side of Figure 2), it is important to recognize that scholars have observed that *individual* empowerment plays a role in collective empowerment (left side of Figure 2). Ibrahim (2017) notes that individuals are the building blocks and starting points of any social change, and through their ability to exercise critical consciousness and conscientization they become aware of their agency, their interests, and their goals. After this stage, it is possible to organize collectively around common interests and achieve collective agency (Pelenc et al., 2015), collective subjectivities (Levkoe, 2011) and collective capabilities (Ibrahim, 2017). Thus, empowerment develops from individual *and* social processes of conscientization, which leads to mobilizing collective action (Hur, 2006). It is important to note that the empowerment process is dynamic and constantly evolving (Hur, 2006) and therefore it may not

follow a clear-cut linear path and may be cyclical, continuously generating new processes and outcomes.

### 2.3. Conceptual Framework

The following framework (Figure 3) summarizes how these concepts relate to each other in this research. This paper explored if, and how, UCG modes of governance influences their manifestations of collective empowerment by looking at how various characteristics of each MoG (Driessen et al., 2012) influences the four main components of collective empowerment (Hur, 2006).

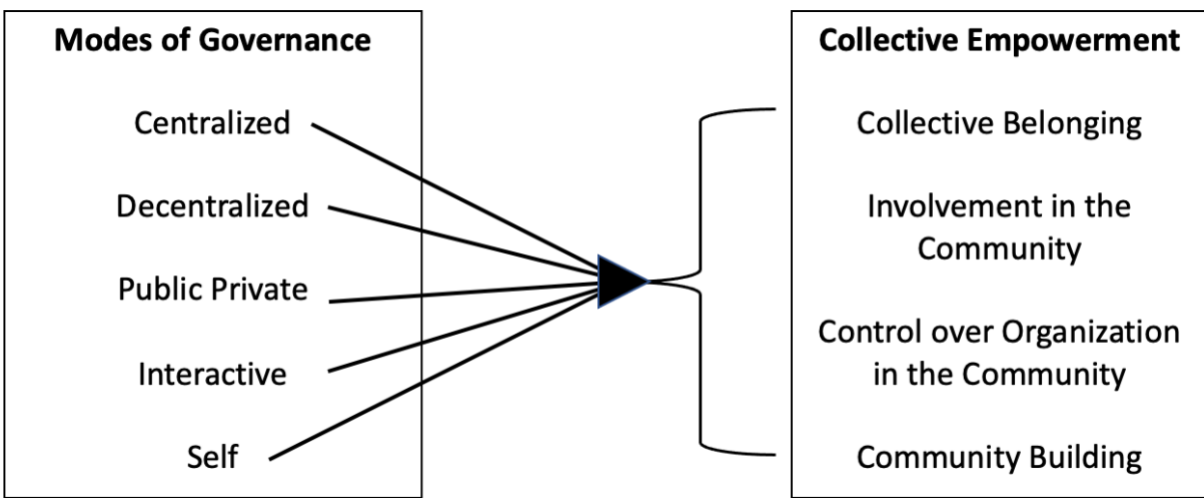


Figure 3: Conceptual Framework



## Chapter 3: Methods

What follows is a discussion about the research methodology that structured this empirical investigation. First, justification for choosing NYC as a geographical focus is presented (section 3.1.), followed by the data collection approach and analysis process (section 3.2.). Then, a brief mention of ethical considerations is discussed (section 3.3.) and finally, UCG case studies are introduced (section 3.4).

### 3.1. New York City Contextualization & Justification

NYC was chosen as the focus of this research because it has a rich history of community garden engagement and a robust food policy plan which includes supporting community-based gardening schemes. The revival of urban community gardening in NYC coincided with (1) a fiscal crisis in the 1970s accompanied by public and private disinvestment which contributed to increased abandoned property and general urban decay (Eizenberg, 2013) and (2) a general reduction in government welfare programs during the 1980s due to municipal leaders implementing neoliberal growth strategies to stimulate economic activity (Reynolds & Cohen, 2016). These factors led to increased citizen engagement efforts to support activities like vacant lot cleanups - a responsibility which previously fell to the government (Reynolds & Cohen, 2016) - which subsequently led to the rise of UCGs that grew from these revived lots. During this time, the government program NYC GreenThumb was established to provide gardeners with assistance and provide them with resources to steward the garden spaces (NYC Parks and Recreation (NYC Parks), n.d.b).

In NYC, relationships between civic organizations and government agencies vary along a spectrum of oppositional and cooperative partnerships, “with the most visible being oppositions over community garden space” (Connolly et al., 2014, p. 193). Oppositions over UCGs erupted in the 1990s when hundreds of UCGs were threatened to be eradicated by the government under the Giuliani Administration (1994-2001). During this time, the mayor threatened to sell and repurpose hundreds of gardens for housing development, and publicly denounced gardens as “an obstacle to a free market economy” (Eizenberg, 2013, p. 21). Activists argued that the [Giuliani] “administration feared the garden sites as places for mobilization of people opposed to its policies” (Reynolds & Cohen, 2016, p. 33) and responded to the government’s threat by organizing rallies, demonstrations, and protests (Eizenberg, 2013). Subsequently, a lawsuit filed by New York State (NYS) attorney general Eliot Spitzer,<sup>6</sup> with support from the Bloomberg administration (2002-2013), resulted in the preservation of hundreds of gardens (Reynolds & Cohen, 2016). Today, support for community gardening is encouraged in NYC’s sustainability plan, OneNYC 2050.

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<sup>6</sup> This lawsuit resulted in a temporary barring of garden sales, which gave two non-profits, New York Restoration Project (NYRP) and Trust for Public Land (TPL), an opportunity to permanently buy about 100 gardens (Reynolds & Cohen, 2016). The Trust for Public Land was then divided into Land Trusts, one of which is the Bronx Land Trust (BLT), an important actor in this research.

This plan was created in 2015 under leadership from Mayor Bill de Blasio and commits to a variety of goals, which include:

“...build[ing] a more sustainable, resilient, and just food system, in which more of [New York’s] food comes from regional and local<sup>7</sup> growers, producers and manufacturers. To achieve those goals, [NYC is] investing in infrastructure to strengthen [its] regional food system, supporting community-based gardening and greening efforts, healthy eating, community development, and encouraging the growth of local food producers and manufacturers to create good job opportunities in the food sector” (NYC Food Policy, 2020, p. 33).

Finally, the governance of NYC UCGs is unique due to a diverse range of actors that own, and help care for, the garden spaces. The legal ownership of NYC UCGs varies with 28% of gardens under jurisdiction of NYC Parks; 15% of gardens under non-profit jurisdiction (i.e., New York Restoration Project (NYRP) and Trust for Public Land (TPL)); a little less than 20% under the NYC Housing Preservation and Development Department; a little less than 20% under the NYC Department of Education; about 10% of gardens under private ownership; and the remaining percentage of gardens under other municipal departments of New York State (NYS) (Eizenberg, 2013).

### 3.2. Research Methodology

To answer the research questions (section 1.3.), the steps presented in Figure 4 were taken. First, a literature review about empowerment, modes of governance, and urban community gardens in the Bronx was conducted. Then, theoretical concepts were translated into analytical frameworks and operationalized with indicators. The framework by Driessen et al. (2012) was chosen because it is a widely established MoG framework and has been recognized as an ideal governance framework to understand politics, polity and policy dimensions which are “constitutive for realizing collective goals by means of collective action” (Lange et al., 2013, p. 409). This framework was used to answer the first research question. To answer the second research question, the Laforge et al., (2016) framework was chosen because it considers how unequal power dynamics between government and grassroots innovations influence actor interactions. Next, to answer the third research question, the framework by Hur (2006) was chosen because it encompassed both strategic (i.e., mobilization of resources) and non-strategic (i.e., conscientization) attributes of empowerment, and adequately fit with two collective empowerment definitions. This research understood collective empowerment through two definitions (Rowlands 1995; Boehm & Staples, 2004) since using a single definition may have been too limiting to adequately explore the complex interdisciplinary nature of the empowerment concept (Roy, 2010).

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<sup>7</sup> The Healthy Food and Healthy Lives Act introduced in 2008 understands locally produced food to be when it travels less than 400 miles, whether from New York State or another state (Morgan & Sonnino, 2010, as cited in Kalfagianni & Skordili, 2019).

The conscientization phase of the Hur (2006) framework (Figure 2) encompasses Rowlands (1995) point that people, once they become aware of their own interests and how those relate to others, are better able to participate in collective decision-making processes while the mobilization/maximization phases of the framework support the Boehm & Staples (2004) definition because it considers how people draw on strategic resources to take joint action.

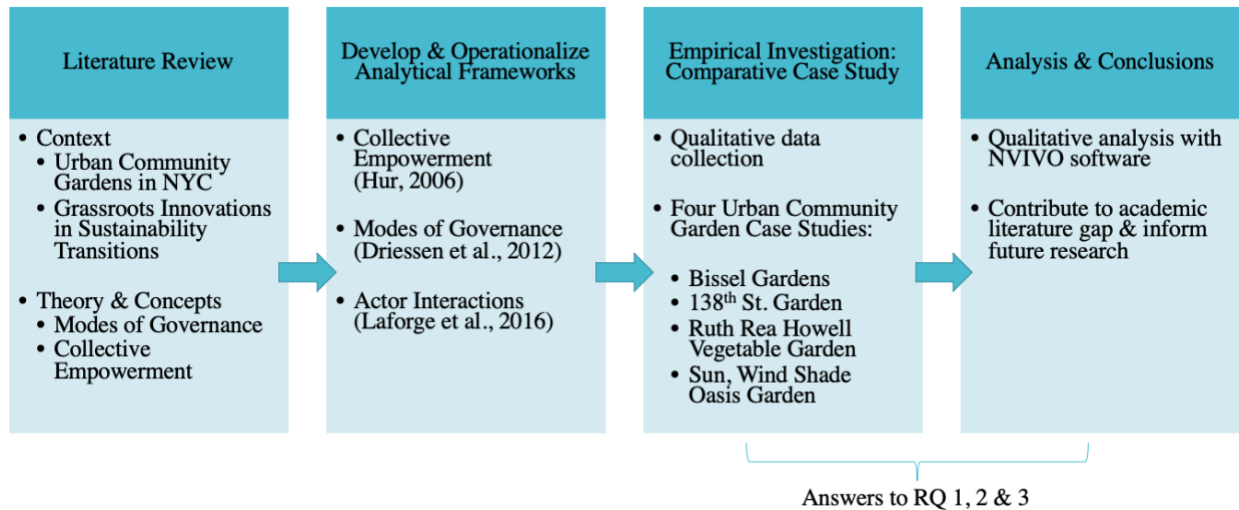


Figure 4: Research Framework

A comparative case study was used in this research which is when a “researcher tries to gain a profound and full insight into one or several objects or processes that are confined in time and space” (Verschuren & Doorewaard, 2010, p. 178). Drawing from a triangulation of sources (e.g., semi-structured interviews, informal interviews, participant observations, online exploration, and institutional documents) a hierarchic method was utilized which rests on first examining the cases independently from each other and then using the results as input for a comparative analysis (Verschuren & Doorewaard, 2010). This strategy was appropriate for the research objective because it yielded an in-depth analysis of select community gardens which then provided a holistic understanding of how UCGs manifest collective empowerment through different modes of governance.

Due to time constraints, investigating community gardens in all five boroughs of NYC was not feasible. As such, to draw geographical boundaries for the case study selection, the Bronx was chosen as the borough of study because it has the highest food insecurity rate (17.5%) compared to other NYC boroughs (Brooklyn, 14.3%; Manhattan, 12.2%; Queens, 9.9%; and Staten Island, 9.0%) (NYC Food Policy, 2020). This was a relevant consideration as UCGs have been shown to increase urban food security (Earth Justice & NYCCGC, 2020), and therefore gardens in this borough have the most potential to make meaningful social change with respect to alleviating food insecurity. The Bronx is socio-culturally diverse with 43.6% Black or African American residents and 56.4% Hispanic or Latino residents (US Census Bureau, 2020). With just over 26% of people

living in poverty, only 19.7% of housing is owner-occupied (US Census Bureau, 2020). This data supports findings from Eizenberg (2013) which state that the distribution of community gardens in NYC are concentrated in areas with high rates of African American and Hispanic populations, as well as in areas that are overwhelmingly characterized by home renters, rather than homeowners.

During the case study selection process, I first used two NYC government agency UCG databases - GrowNYC and GreenThumb - to help identify all 137 UCGs located in the Bronx. Then, drawing on desk research from garden websites and initiating exploratory exchanges (e.g., phone calls, emails) with garden participants, I used the following criteria to further specify potential cases:

- The garden must grow fruits and vegetables. Gardens that only grow flowers/plants and/or only consist of green space was not considered.
- The garden must be in existence for at least 20 years. This time series was chosen because sustainability transitions are long-term processes that may take decades to unfold (Köhler et al., 2019) and by studying a garden that has grown over several decades, deeper understandings and explanations of governance and empowerment dynamics was revealed.

Next, I identified 43 UCGs that fit these criteria and the resulting garden data (e.g., location, contact information) was inputted into an excel spreadsheet. Afterwards, I progressively sampled each garden, filtering possible cases out based on participants' willingness to participate in the research, garden access, and gardener availability. Due to COVID, many gardens were either closed, or had limited gardener capacity. Four cases were ultimately chosen and are identified in the map below, Figure 5. This case study sample size was ideal for gaining an in-depth understanding of how these UCGs manifest collective empowerment in their local communities and their unique governance structures.

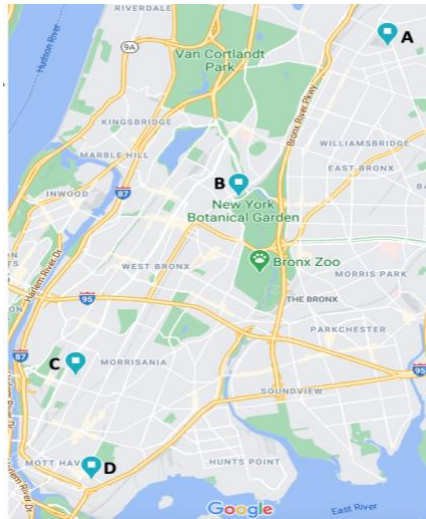


Figure 5: Map of Case Studies (Bronx, New York City)  
 Key: A: Bissel Gardens, B: Ruth Rea Howell Vegetable Garden,  
 C: Sun, Wind & Shade Oasis Garden, D: 138th Street Garden

After scheduling in-person interviews with garden leaders at each case study location, each garden was physically visited at least twice to conduct a combination of formal semi-structured interviews, informal interviews, and participant observations. In addition, informal interviews were conducted with garden collaborators by phone and online correspondence (i.e., GreenThumb, Green Guerillas, Bronx Green-Up, NYC Parks, and New York City Community Garden Coalition). The operationalized frameworks were used to support the data collection process by informing the development of interview questions and rating tools. Based on specific indicators from the operationalized frameworks (see section 3.4.), the semi-structured interview questions (see Appendix A) and rating tool (Figure 6) were created.

RATE MY RELATIONSHIPS



Figure 6: Actor Interactions Rating Tool

Next, qualitative data from discussions and observations were transcribed and uploaded onto NVIVO, an online qualitative data analysis software. Using the codes presented in Table 1, each

interview was reviewed and quotes that matched codes were categorized accordingly. Once all interviews were coded and categorized through textual interpretation, patterns across the cases were revealed and used to inform the analysis and discussion. Using this qualitative data, it was possible to answer all the research questions. Overall, the duration of this research took place over 31 weeks between November 30, 2020, and July 16, 2021. A timeline of events for each phase of the research can be seen in Appendix B.

Supporting Literature	Qualitative Codes
Driessen et al. (2012)	<ul style="list-style-type: none"> <li>• Centralized governance</li> <li>• Decentralized governance</li> <li>• Public-Private governance</li> <li>• Interactive governance</li> <li>• Self governance</li> </ul>
Laforge et al. (2016)	<ul style="list-style-type: none"> <li>• Containing</li> <li>• Contesting</li> <li>• Coopting</li> <li>• Collaborating</li> </ul>
Hur (2006); Itzhaky (1995); McMillian et al. (1995); Zimmerman & Zahniser (1991); McMillan & Chavis (1986)	<ul style="list-style-type: none"> <li>• Collective Belonging               <ul style="list-style-type: none"> <li>• Identification</li> <li>• Involvement</li> <li>• Loyalty</li> </ul> </li> <li>• Involvement in community               <ul style="list-style-type: none"> <li>• Hours of Operation</li> <li>• Participation Opportunities</li> <li>• Benefits to Participation</li> <li>• Costs of Participation</li> </ul> </li> <li>• Control of Community Organization               <ul style="list-style-type: none"> <li>• Leadership Competence</li> <li>• Policy Control</li> </ul> </li> <li>• Community Building               <ul style="list-style-type: none"> <li>• Influence</li> <li>• Membership</li> <li>• Reinforcement</li> <li>• Shared Emotional Connection</li> </ul> </li> </ul>
Rowlands (1995); Boehm & Staples (2004)	<ul style="list-style-type: none"> <li>• Definition of Empowerment</li> </ul>

Table 1: Codes needed for qualitative analysis in NVIVO

### 3.3. Ethical Considerations

Throughout this thesis, principles of honesty, scrupulousness, transparency, independence, and responsibility guided research practices (Netherlands Code of Conduct for Research Integrity, 2018). During field research, ethical concerns such as anonymity, confidentiality and informed consent were upheld. All interviews and participant observations included a brief introduction to explain the motivations of the research, how the data would be collected and how it would be used in the future. Moreover, all participants involved in interviews and participant-observations expressed consent to record conversations and allow notes to be taken. To protect the privacy of the participants and encourage them to speak honestly without fear of negative repercussions, their names have not been published and remain anonymous in the results and discussion sections. All data was stored in password-protected private devices (i.e., researcher’s phone & computer) and were kept private.

### 3.4. Operationalization(s)

To adequately observe collective empowerment and governance concepts during empirical investigations, the following frameworks were operationalized: Modes of Governance (Driessen et al., 2012), Collective Empowerment (Hur, 2006) and Actor Interactions (Laforge et al., 2016).

#### 3.4.1. Operationalization of Governance

The original framework presented by Driessen et al. (2012) covers a total of 11 governance categories. Focusing only on the categories most relevant to the research questions, I simplified the original framework and selected 5 governance categories to investigate: initiating actors, rules of interaction, mechanisms of social interaction, goals and targets and instruments. This simplified framework can be seen below in Table 2.

It is important to note that during qualitative data analysis, slight alterations to this framework were required. Due to issues with the Driessen et al. (2012) framework (see section 5 for more details), following van der Jagt et al. (2017), the ‘initiating actor’ feature was divided into three categories (i.e., land, funding, and expertise) reflecting the types of resources actors may provide a garden. Since studies on sustainability transitions have been critiqued for using broad understandings of actors (Avelino & Wittmayer, 2016), in this research, actors involved in the cases were understood at the organizational level only. This included organizations such as community groups, non-profit organizations, social enterprises, corporations, and government agencies.

		Modes of Governance Typologies				
		Centralized Governance	Decentralized Governance	Public-Private Governance	Interactive Governance	Self-Governance
Actor Features	Initiating actors	Central government agencies (or supranational bodies)	Government at various levels of aggregation (subsidiarity)	Central government agencies; private sector is granted a preconditioned role also	Multiple actors: government, private sector and civil society	Private sector and/or civil society
	Rules of Interaction	Formal rules (rule of law; fixed and clear procedures)	Formal rules (rule of law; fixed and clear procedures)	Formal and informal exchange rules	Institutionals in its broadest form (formal and informal rules)	Formal (self crafted, non imposed) and informal rules (norms, culture)
Institutional Features	Mechanisms of social interaction	Top-down; command and control	Sub-national governments decide autonomously about collaborations within top-down determined boundaries	Private actors decide autonomously about collaborations	Interactive: social learning, deliberations and negotiations	Bottom up: social learning, deliberations and negotiations
	Goals and Targets	Uniform goals and targets	Uniform and level specific goals and targets	Uniform goals	Tailor-made and integrated goals and targets	Tailor-made goals and targets
Content Features	Instruments	Legislation, permits, norms and standards	Public covenants and performance contracts	Incentive based instruments (e.g., taxes, grants); performance contracts	Negotiated agreements; trading mechanisms; covenants; entitlements	Voluntary instruments; private contracts; entitlements; labelling and reporting

Table 2: Simplified Modes of Governance Operationalization Framework  
Source: Adapted from Driessen et al. (2012)



### 3.4.2. Operationalization of Actor Interactions

To further understand actor relationships within UCG modes of governance, I drew on the typology by Laforge et al. (2016) which characterizes interactions between grassroots innovations actors and government/corporate actors, shown in Figure 7.

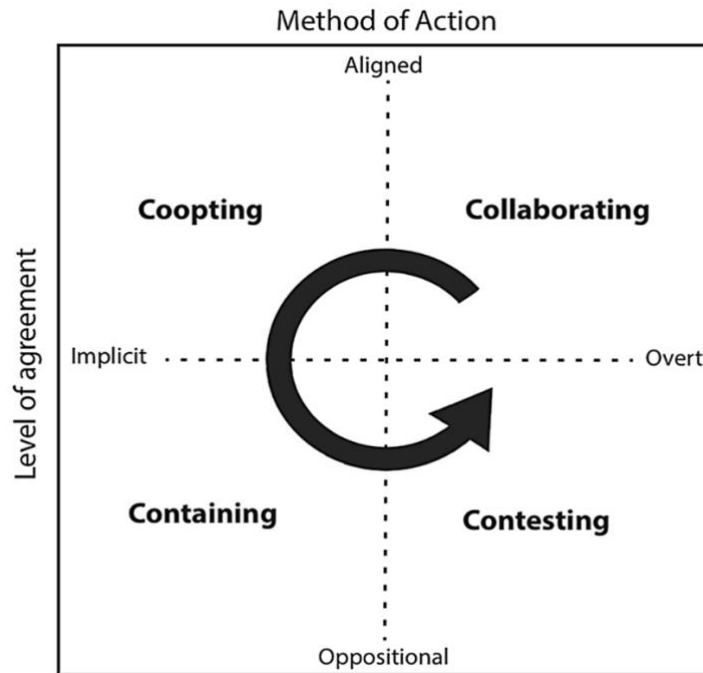


Figure 7: Typology of Actor Interactions  
Source: Laforge et al. (2016)

Here, the category ‘collaborating’ refers to when governments and grassroots innovations actors work in balanced partnerships with equal power and in which democratic decision-making processes take place; ‘contesting’ refers to when citizens take action to “challenge government and its complicity in serving the interests of powerful actors in the dominant system” (p. 675); ‘coopting’ is when grassroots innovations are diluted through modes of governmentality by government or corporations; and ‘containing’ refers to when grassroots innovations are restricted through regulations by government and/or corporate actors (Laforge et al., 2016). Further explanation of these categories is presented in Figure 7a. It is important to note that these interactions are always in flux and can co-exist at times as they transition from one relationship to another (Laforge et al., 2016). Furthermore, although the typology clearly demarcates implicit and explicit levels of agreement, in reality, the mechanisms of each type of interaction may demonstrate both implicit and explicit practices (Laforge et al., 2016).

<b>Actor Interaction Descriptions</b>	
<p style="text-align: center;"><b>Coopting</b></p> <p><u>Description:</u> Diluting grassroots alternatives; government influences common sense notions of how things should be done</p> <p><u>Examples:</u> Government support favors programs that commercialize products; citizens internalize neoliberal values (e.g., competitiveness, specialization)</p>	<p style="text-align: center;"><b>Collaboration</b></p> <p><u>Description:</u> Governments provide genuine, sustained opportunities for citizens to help co-create a power-equalizing deliberative space where citizens co-produce agendas, policy, regulations, and practices; citizens understand themselves to be active participants in this process</p> <p><u>Examples:</u> Democratic decision-making processes</p>
<p style="text-align: center;"><b>Containing</b></p> <p><u>Description:</u> Restricting grassroots alternatives through direct enforcement and regulations</p> <p><u>Examples:</u> Surveillance culture, fines, antagonistic interactions with regulators, rigid regulations</p>	<p style="text-align: center;"><b>Contesting</b></p> <p><u>Description:</u> Overt methods of action by grassroots actors to challenge government by mobilizing as social and political agents</p> <p><u>Examples:</u> Protests, lobbying, pushing boundaries of ‘grey areas’ of regulations</p>

Figure 7a: Typology Descriptions  
Source: Laforge et al. (2016)

### 3.4.3. Collective Empowerment Operationalization

Collective empowerment was qualitatively measured by observing the four components of collective empowerment identified by Hur (2006). These components include collective belonging, involvement in the community, control over organization in the community and community building. If the following indicators were present in an urban community garden, it suggested that they manifested collective empowerment.

Collective Empowerment Components	Supporting Literature & Indicators
Collective Belonging	<p><b>Sense of Community Belonging</b> (Bavely &amp; York, 1995 as cited in Itzhaky (1995))</p> <ul style="list-style-type: none"> <li>• Identification (ex. pride in UCG)</li> <li>• Involvement (ex. willingness to invest effort in UCG)</li> <li>• Loyalty (ex. attachment to, affection for, and desire to remain a member of UCG)</li> </ul>
Involvement in the Community	<p><b>Participation</b> (McMillian et al., 1995)</p> <ul style="list-style-type: none"> <li>• Open hours of participation in an average month</li> <li>• Participation opportunities (ex. volunteer, educational workshops, member meetings)</li> <li>• Organizational benefits to participation (ex. gaining membership/recognition)</li> <li>• Organizational costs of participation (ex. increased need for volunteers, expensive public programming)</li> </ul>
Control of Community Organization	<p><b>Sociopolitical Control</b> (Zimmerman &amp; Zahniser, 1991)</p> <ul style="list-style-type: none"> <li>• Leadership competence (ex. ability to lead/organize neighbors)</li> <li>• Policy control (ex. ability to influence local policy/norms)</li> </ul>
Community Building	<p><b>Sense of Community</b> (McMillan &amp; Chavis, 1986)</p> <ul style="list-style-type: none"> <li>• Influence (ex. sense of mattering, making a difference)</li> <li>• Membership (ex. feeling of belonging in, and acceptance by, the group)</li> <li>• Reinforcement (ex. fulfillment of needs, group offers rewarding attributes to members)</li> <li>• Shared emotional connection (ex. shared identity, history, or spiritual bond)</li> </ul>

Table 3: Collective Empowerment Operationalization

Hur (2006) understands ‘collective belonging’ to refer to a feeling of belonging with social networks of peers. This component was observed through a *sense of community belonging* indicator (Itzhaky, 1995). Community belonging can be understood in relation to participating in community organizations; the more a person is involved in a community, the more pride they feel in their community, the more willing they are to invest their effort as a community member and the more they consider staying in the community (Itzhaky, 1995). Bavelly & York (1995) operationalize community belonging through three components: identification (pride in the community); involvement (willingness to invest personal effort as a member of the community) and loyalty (affection for and attachment to community and a wish to remain a member of that community) (as cited in Itzhaky, 1995). Adapting this approach to fit the needs of this research, these components referred to their sense of belonging to an ‘urban community garden’ instead of a ‘community.’

‘Involvement in the community’ was observed by looking at the degree of participation an UCG offers to their community. Socialization theory asserts that participation provides benefits to the participant (e.g., skills, knowledge), who thus becomes more empowered (Itzhaky & York, 2000). McMillan et al. (1995) operationalized participation at the individual level by looking at people’s participation in group activities through the following variables: (1) hours of participation in an average month (2) the kind of participation role (e.g., member of a specific committee, chair of committee, etc.) and (3) the benefits and (4) costs of participation. In this research, these variables were adapted to the UCG group level and relate to (1) the number of hours a garden is open to the public per month (2) the types of participation activities available to the public (e.g., volunteer, educational workshops, member meetings, etc.) (3) the organizational benefits of participating in the community (e.g., increasing membership, media recognition, etc.) and (4) the negative organizational costs to participating in the community (e.g., increased need for volunteers and staff time, depletion of financial resources, etc.).

‘Control over organization in the community’ can be understood as the “involvement or participation in community activities or events that may lead to affecting the power structure in communities” (Hur, 2006, p. 534). This understanding relates to the notion of perceived control (Zimmerman, 2000) which is the belief that one can influence outcomes. Paulhus (1983) presents a model of perceived control which includes personal, interpersonal, and sociopolitical spheres of control (as cited in Zimmerman & Zahniser, 1991). For this research, sociopolitical control is the most appropriate to consider as it relates to involvement in community organizations and refers to “beliefs about one’s capabilities and efficacy in social and political systems. Examples of sociopolitical control include beliefs that one can influence policy decisions, lead a group of people, or organize one’s neighbors” (Zimmerman & Zahniser, 1991, p. 189). Sociopolitical control has been operationalized at the individual level through examining leadership competence and policy control which refer to one’s capabilities to be effective in social and political systems

(Zimmerman & Zahniser, 1991). Adapting this approach to fit the organizational level of analysis for this research, sociopolitical control for UCGs was observed by looking at how a garden influences local policies/norms (i.e., formal and informal) and leads community organization.

Finally, 'community building' "refers to creating a sense of community among residents that will increase [their] ability to work together, problem solve and make group decisions for social change" (Hur, 2006, p. 534). This concept was observed by looking at the sense of community that was created (or not) by an urban community garden. A sense of community can be understood as "a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together" (McMillan & Chavis, 1986). Based on the model by McMillan & Chavis (1986), a sense of community can be observed along four dimensions: membership, influence, integration, and fulfillment of needs (reinforcement), and shared emotional connection.

### 3.5. Case Study Descriptions

#### 3.5.1. 138th Street Garden

This volunteer-run garden, founded in the mid to late 1980s, is located in Mott Haven, South Bronx. Because this neighborhood has a history of homicides and gang violence (Mueller & Baker, 2016), garden leaders strive to make this garden a “safe zone” within the neighborhood. Sitting on NYC Department of Parks and Recreation (NYC Parks) land, this garden falls under full jurisdiction of NYC GreenThumb. As a GreenThumb garden, this group is required to sign a Licensing Agreement every four years with NYC Parks to legally operate.

While the garden is free to access and open to the public 156+ hours per month, Wednesday-Sunday, gardeners interested in growing their own plants pay a monthly due of \$10 from April-September (October is free). There are a total of 16 gardening beds available to the public on a first come-first-serve basis. In these beds, gardeners are free to grow their choice of plants, as long as they use organic and pesticide-free practices. In contrast to the other case studies which use a Board of Directors to settle garden decisions, here two primary garden leaders are responsible for making the major decisions, managing the day-to-day garden operations, and being liaisons between the gardeners and GreenThumb. In efforts to make things “simple” for gardeners, there are no garden member committees or meetings; while gardeners are welcome to give feedback and express their concerns, this is done through an informal word-of-mouth culture between gardeners and garden leaders.

There are several opportunities for involvement in this garden. Volunteers are welcome to assist with daily garden operations (e.g., clean up, weeding, painting, etc.), participate in neighbor-led yoga classes, contribute art skills by painting/decorating garden spaces, partake in gardening activities or simply use the greenspace to relax and socialize. These opportunities are informally organized by garden leaders and posted on the group’s Facebook page. If community members are interested in hosting/organizing an event, word-of-mouth is the most common method of communication to organize such events.



Figure 8: 138th Street Garden

### 3.5.2. Bissel Gardens

Bissel Gardens Inc, founded in 1998, is a registered 501c3 volunteer-run nonprofit organization with a mission to: (1) optimize the urban landscape by preserving and creating functional and educational green space; (2) engage a diverse constituency from the surrounding community in the life and production of the gardens; (3) and strive for sustainability in garden practices, community outreach, and fundraising to ensure the future of Bissel Gardens (Bissel Gardens Inc., 2021).

Located along the northernmost edge of the Bronx borough border, this garden is located in Woodlawn and sits on land under NYC Department of Transportation (DOT) jurisdiction. Because this garden is not on NYC Parks land, it is not required to sign the comprehensive NYC GreenThumb Licensing Agreement but is required to sign a Memorandum of Agreement (MOA) with GreenThumb which ensures the garden follows a certain minimum of requirements in exchange for receiving free support from GreenThumb. Since the garden sits on the edge of the Bronx, and is not directly under NYC Parks jurisdiction, they have a little more flexibility with GreenThumb regulations because they often get “forgotten about” or “fall out of the loop<sup>8</sup>.”

Garden participants contribute an annual fee of \$35 in addition to a plot fee which can range from \$25-\$500, depending on the plot size. Community members can walk through the garden area every day of the week for free, however only garden participants have a key to open the garden gates. This makes public access somewhat limited as visitors can only access the gated areas when participants are there, or during public programming.

Public programming is varied with many opportunities for engagement. Visitors may participate in the following activities: a seasonal summer/fall farmers market, seasonal volunteer days, educational workshops, and nutrition demos. Bissel Gardens has about 20 participants including a 7-person volunteer-run Board of Directors. The Board meets at least 6 times a year and “have the general power to control and manage the affairs and property of the Corporation” (Bissel Gardens Inc., 2013).



Figure 9: Bissel Gardens

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<sup>8</sup> Anonymous, Personal Communication. April 5, 2021.

### 3.5.3. Sun, Wind, Shade Oasis Garden (SWS)

This volunteer-run garden is located in the Concourse district of the South Bronx and is part of a larger network of 18 gardens that belong to a 501c3 nonprofit organization, Bronx Land Trust (BLT). BLT was created in 1999 and their mission is to “support and sustain community gardening throughout the Bronx” and “preserve, improve, and promote community managed open spaces for the benefit of all” (Bronx Land Trust, n.d.a). The BLT is run by a Board of Directors of approximately 14 volunteers. BLT is the legal landowner of this garden, distinguishing it from the other case studies as the only garden with private land ownership. However, it is important to note that similarly to Bissel Gardens, since this garden is not on NYC Parks land, it is not required to sign the NYC GreenThumb Licensing Agreement but is required to sign the MOA with GreenThumb.

Free and open to the public for at least 15 hours per week between the months May and October, visitors from around the community are invited to walk in, use the public gardening beds, and participate in activities. Visitors interested in becoming gardening members - of which there are approximately 11 private gardening beds - pay a \$35 fee to get full access to a private bed for 6 months between April to October. This fee goes towards SWS *and* BLT operations. Because this garden is independently owned and thus not primarily supported by a city agency, it relies almost exclusively on BLT and other community-based organizations for operational support. Subsequently, each garden within the 18-garden network of BLT is required to pay an annual membership fee to BLT (\$150), an annual insurance policy fee to protect garden participants (\$543), fees to turn on (\$75), turn off (\$50), and winterize (\$100) water pipes/plumbing, and miscellaneous tickets and summons as needed.

Public engagement opportunities vary and include an annual grand opening event, Halloween festivities, back-to-school activities, movie nights, and more. SWS is led by a volunteer steward who is primarily responsible for managing daily operations, organizing a minimum of 3 public community events per year, and attending monthly and annual BLT meetings.



Figure 10: Sun, Wind, Shade Oasis Garden  
Private Garden Beds (left); Bronx Land Trust Annual Board Meeting (right)



### 3.5.4. Ruth Rea Howell Vegetable Garden (RRHVG)

Situated within the 250-acre New York Botanical Garden (NYBG), the RRHVG was originally founded in the 1890s and is now a staple feature of the NYBG's education facility, The Edible Academy. The Edible Academy was erected in 2018 and cost \$28 million dollars to develop. Its goal is to support and enhance NYBG's ongoing mission to provide children and families access and opportunities to connect with nature. The NYBG operates with a professional Board of Trustees. The entire NYBG is located in the central Bronx and sits on land that is completely owned by the City of New York. While the NYBG is a 501c3 nonprofit organization, its operations are made possible in part by public funding from NYC Department of Cultural Affairs, NYC City Council and New York State<sup>9</sup> Office of Parks, Recreation and Historic Preservation. This garden is the only case study that does not directly interact with NYC GreenThumb.

Although the RRHVG is open to the public six out of seven days of the week, this garden differs from the other case study community gardens as there is generally an entrance fee. Except Wednesdays when NYC residents are given free access to the entire 250-acre Botanical Garden, there is a \$25 general (adult) admission fee to the NYBG (plus parking if arriving by car). Only with a general ticket to the NYBG can one access the RRHVG - except if a group is coming specifically for programming or a special event. This garden does not offer visitors private beds to grow their own food/plants. However, there are many public beds which are open to all visitors during drop-in seasonal gardening activities, registered family programming, camps, formal educational workshops, and volunteer days. Unlike the other gardens which are all exclusively volunteer-run, this garden is managed by paid staff *and* volunteers. Within the Edible Academy are 7 full-time staff and approximately 20-30 part-time staff. These employees go through a robust recruitment process in which interviews are conducted and formal applications submitted. The volunteer recruitment process is also robust and requires a formal application process.



Figure 11: Ruth Rea Howell Vegetable Garden within the Edible Academy Campus

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<sup>9</sup> Take note that this is New York State's Office of Parks, Recreation and Historic Preservation, not New York City's Department of Parks and Recreation.

## Chapter 4: Results

The results are discussed in order of the research questions. First, a comprehensive overview of the MoG typologies for all case studies is presented (section 4.1). This discussion is broken into the three governance features presented by Driessen et al. (2012), that is, actor features, institutional features, and content features. Following the governance discussion, actor relationships between UCGs and the government are presented and broken into the four interaction types by Laforge et al. (2016) (section 4.2). Next, examples of strategic and non-strategic manifestations of collective empowerment are discussed (section 4.3). Finally, a discussion about modes of governance’s influence on collective empowerment is revealed (section 4.4). It is important to note that in each section only the most relevant information pertaining to the research questions and final discussion are described.

### 4.1. Modes of Governance

All gardens demonstrated multiple characteristics of distinct MoG resulting in hybrid typologies<sup>10</sup> (Table 4). This suggests that no garden fit perfectly into one specific mode of governance (Figure 1). However, even within this hybridity, it was possible to discern that across all UCGs and all governance features, the most common MoG characteristics were self-governance and decentralized governance.

		Mode of Governance Characteristics						
		Actor Features			Institutional Features		Content Features	
		Expertise	Funding, Materials & Capacity	Land Ownership	Mechanisms of Social Interaction	Rules of Interaction	Goals & Targets	Instruments
Case Study Gardens	138th Street Garden							
	Bissel Gardens							
	Ruth Rea Howell Vegetable Garden							
	Sun, Wind, Shade Oasis							

Decentralized   
 Self   
 Interactive   
 Centralized   
 Public Private

Table 4: Modes of Governance Results Overview

<sup>10</sup> For additional details about specific cases’ MoG breakdowns, see Appendices C-F.

#### 4.1.1. Actor Features

Demonstrated in Table 4, most gardens are characterized by decentralized governance with respect to land ownership because all cases, except SWS garden, are on land owned by New York City agencies. Concerning expertise and knowledge, all cases exhibited characteristics of self-governance. This is because the dominant source of information and expertise provided to these gardens were by members/leaders/staff of the UCG, ordinary community members and/or other civil society (CS) organizations. Within this category most gardens also reflected characteristics of decentralized governance because they are invited to educational workshops by GreenThumb - covering topics from composting to conflict-resolution - however, cases working with this agency expressed that these workshops were not their dominant sources of information. Finally, with respect to funding/materials/capacity, gardens demonstrated characteristics of self, interactive, and decentralized modes of governance. In line with self governance, all cases collected participant fees, event/programming income, and independent donations from community members as sources of funding in addition to collaborating with local CS actors for volunteer and/or material support. RRHVG was the only garden that reflected characteristics of interactive governance due to their diverse base of financial support from state, market, and civil society actors. Finally, in line with decentralized governance, some cases received funding and materials from City agencies, including, but not limited to, NYC City Council and GreenThumb.

CS actors worthy of mention due to their high degree of involvement with the garden case studies and their relevance to the final discussion (Section 5) include Green Guerillas, Bronx Green Up, Small Axe Peppers and New York City Community Garden Coalition (NYCCGC). Green Guerrillas collaborates with gardens by assisting with material donations (e.g., wood, rakes, sheds) and providing logistical support (e.g., seminars, resource/information sharing, network building). This organization has been supporting community gardens across NYC since 1973 by using “a unique mix of education, organizing and advocacy to help people cultivate community gardens, sustain grassroots groups, grow food, engage youth, and address issues critical to the future of food justice and urban agriculture” (Green Guerillas, n.d.). Bronx Green Up is the community outreach program from the NYBG which supports several UCGs around the Bronx by providing materials, horticulture advice and volunteer capacity. Bronx Green Up has helped establish more than 300 community gardens since it began in 1988 (New York Botanical Garden, 2020). Small Axe Peppers is a local social enterprise group which donates and distributes pepper seeds to community gardens across NYC in return for gardeners’ help in cultivating and harvesting the peppers. These peppers are then cooked into a unique hot sauce recipe and sold at various retail shops around the Bronx. Finally, NYCCGC was founded in 1996 and works to “promote the preservation, creation, and empowerment of community gardens through education, advocacy, and grassroots organizing” (NYCCGC, n.d.). This organization helped lead and mobilize dozens of NYC UCGs and hundreds of non-gardeners in city-wide political acts of contestation against the NYC Department of Parks & Recreation via protests and petitions (see section 4.2.2.).

#### 4.1.2. Institutional Features

As seen in Table 4, mechanisms of social interaction across all gardens exclusively reflect characteristics of self governance due to robust bottom-up social learning practices during UCGs' day-to-day activities, garden meetings, events/programming, CS collaborations, and educational workshops. Informal peer-to-peer interactions between gardeners, community members, and collaborating CS organizations was the dominant method of sharing knowledge, skills, and resources.

Rules of interaction across all gardens included characteristics of self, decentralized and centralized governance. With respect to self governance, formal self-crafted bylaws and protocols related to member obligations, hours of operation, planting instructions and garden restrictions (e.g., no alcohol, no pets, etc.) were present in all gardens. Most gardens operated with a volunteer-run Board of Directors/Board of Trustees who were responsible for making major garden-related decisions. Informal rules (e.g., expecting participants to assist with cleaning and maintaining common areas, informal word-of-mouth communication culture) were also observed across all volunteer-run gardens.

Characteristics of decentralized rules of interaction were present in all gardens via formal City Agreements (i.e., GreenThumb Licensing Agreement or GreenThumb MOA) and City and State-mandated COVID-19 regulations. COVID restrictions forced all gardens to close in the early months of the pandemic and limited the amount of people allowed at garden activities during the later months of the pandemic. Finally, since most gardens in this research are formally recognized by the federal agency, the Internal Revenue Service (IRS), as 501c3 nonprofit organizations, they were also subject to characteristics of centralized governance via formal rules of interaction which prohibit political engagement (see section 4.2.1.).

#### 4.1.3 Content Features

With respect to goals and targets, all gardens included characteristics of self governance due to tailor made goals and targets (e.g., garden bylaws). Common goals across gardens included creating a place that benefits the well-being of the surrounding community, developing/maintaining beautiful greenspace, and supporting like-minded CS organizations.

Gardens using grants to secure financial or material support were subject to characteristics of interactive governance (i.e., goals and targets reflect donor objectives) and public-private governance (i.e., grants as 'incentive-based instruments'). It is important to highlight that while a benefit of working with multiple actors from state, market, and civil society domains (i.e., interactive governance) is the ability to mobilize more strategic resources, a consequence may be that garden goals and interests become entwined in external motivations that may not always be in line with the recipient's goals. Thus, it is important to keep in mind that an integrated set of goals

and targets (i.e., interactive governance) may cause tension, social disruption and/or invite potential for conflict as actors' loyalties may differ. One employee at the RRHVG explained:

Any time you have, like, a solid foundation that has a long-standing history...the NYBG is over 100 years old... through that time you get a lot of funding. And when you introduce funding into anything, you're introducing other types of motives and other people's 'say,' so sometimes when that happens it becomes more so geared towards how we can appease the [external] institution rather than [the internal] employees...<sup>11</sup>

As seen in Table 4, all gardens reflected characteristics of decentralized governance with respect to instruments as a result of varying public covenants with government agencies (i.e., GreenThumb Licensing Agreement or GreenThumb MOA). RRHVG, as part of the NYBG, enters public covenants with government agencies such as NYC Cultural Affairs and NYC Council.

In summary, the most common UCG MoG characteristics were self governance followed by decentralized and interactive governance, however no garden fit perfectly into one MoG typology (Figure 1). The only governance characteristic which did not demonstrate hybridity across all case studies was 'mechanisms of social interaction' which were observed to exclusively support self-governance. This suggests that although other MoG characteristics were utilized in garden operations, gardeners preferred to interact with each other, their communities, and their stakeholders through democratic participatory means.

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<sup>11</sup> Anonymous, personal communication, May 5, 2021.

## 4.2. Actor Interactions

Most organizational actors involved with the selected case studies were government agencies and CS organizations. Relationships with market actors were largely absent. As such, following Laforge et al. (2016), interactions between UCGs and government are discussed in this section and summarized in the tables below, Table 5 and Table 5a.

		Actor Interactions	
		Containing	Contesting
Garden Case Studies	138th Street Garden	<ul style="list-style-type: none"> <li>•Burdensome regulations in 2019 Licensing Agreement</li> <li>•Until recently, GreenThumb required attendance at workshops to be eligible for supplies</li> </ul>	<ul style="list-style-type: none"> <li>•Refused to sign GreenThumb Licensing Agreement</li> <li>•Expressed interest in signing From the Ground Up petition</li> <li>•Push 'grey area' boundaries of GreenThumb regulations (i.e., does not provide advance notice about low-key events)</li> <li>•Refused to hold GreenThumb event until materials were delivered</li> </ul>
	Bissel Gardens	<ul style="list-style-type: none"> <li>•501c3 status prohibits political campaigning</li> <li>•Self-regulation of gardeners (e.g., risk of reprisal from DOT impedes collaboration, fear of losing 501c3 status)</li> </ul>	<ul style="list-style-type: none"> <li>•Has participated in letter-writing campaigns</li> </ul>
	RRHVG	<ul style="list-style-type: none"> <li>•Burdensome NYS Dept. of Environmental Protection &amp; NYC Dept. of Environmental Conservation &amp; NYC Dept. of Transportation building regulations/approval processes for large capital projects (i.e., Edible Academy)</li> <li>•501c3 status prohibits political campaigning &amp; self-regulation behavior due to fear of losing 501c3 status</li> </ul>	<ul style="list-style-type: none"> <li>•Expressed that letters of support have been passed to upper NYBG administration to be reviewed by lawyers and signed</li> </ul>
	Sun, Wind, & Shade	<ul style="list-style-type: none"> <li>•501c3 status prohibits political campaigning &amp; self-regulation behavior due to fear of losing 501c3 status</li> <li>•Burdensome regulations from GreenThumb MOA</li> </ul>	<ul style="list-style-type: none"> <li>•Signed From the Ground Up Petition</li> <li>•Push 'grey area' boundaries of GreenThumb regulations (i.e., "lax" about alcohol usage in gardens)</li> </ul>

Table 5: Actor Interactions Results Summary, part 1

### 4.2.1. Containment

With respect to interactions which reinforce unequal power relations between government actors and gardeners, explicit mechanisms of government containment included burdensome regulations and a culture of surveillance, particularly from the GreenThumb agency, while implicit mechanisms were observed through gardeners self-regulating their behavior.

The GreenThumb agency exhibited strict, formal rules for gardeners and threatened to not support them if they did not comport. These rules often promoted uniform goals and targets for all NYC UCGs to abide by (i.e., decentralized governance). First, GreenThumb required gardeners to attend

workshops in order to be eligible to receive material supplies<sup>12</sup> (e.g., wood, compost, soil, etc.). This dynamic demonstrates GreenThumb establishing control over gardeners by cultivating a dependency on this agency for materials. Second, the 2019 GreenThumb Licensing Agreement included burdensome regulations which would likely impede gardeners' ability to function. For example, one clause placed sole liability and assumption of risk on gardeners (NYC Parks, 2019b) which would likely force gardeners to purchase expensive liability insurance<sup>13</sup> for their members and participants. Other restrictive clauses included limiting gardens from holding more than two fundraisers per year, waiving licensees' right to a trial by jury, and requiring gardens to notify GreenThumb before all community events and structure-building activities (NYC Parks, 2019b). This close monitoring of gardeners may be understood as surveillance culture.

A more subtle example of containment was seen through some gardeners' self-regulatory behavior. An interviewee from Bissel Gardens suggested that their relationship with the NYC Department of Transportation (DOT) has been so capricious that she avoids contacting them because of a high risk of reprisal:

While you're on [their land] and taking care of it, it's all good, but there's no relationship for assistance... It's more, 'well as long as you're taking care of [the land] it's fine, but if you need assistance, then we'll take it back'.<sup>14</sup>

She went on to say while the DOT does not offer basic material support like hand tools or mowers, the gardeners do not ask for anything because they "don't want to rock the boat" which leads them to seek materials and support from other CS organizations. This top-down behavior, embedded with modes of governmentality, consequently deterred gardeners from collaborating with this City agency.

Another example of self-regulatory behavior was observed by the 501c3 nonprofit organization UCGs in this research. According to the IRS, 501c3 organizations are "absolutely prohibited from directly or indirectly participating in, or intervening in, any political campaign on behalf of (or in opposition to) any candidate for elective public office. [...] voter education or registration activities with evidence of bias that (a) would favor one candidate over another; (b) oppose a candidate in some manner; or (c) have the effect of favoring a candidate or group of candidates, will constitute prohibited participation or intervention." (n.d.). I observed that 501c3 gardens were more cautious of their political engagement behavior than non 501c3 gardens (i.e., 138th St. Garden). One employee at RRHVG mentioned that before any letters of support are submitted, they needed to be approved by lawyers and passed to upper levels of administration. Additionally, within the BLT

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<sup>12</sup> This rule was recently changed and is clearly stated in the *revised* 2019 GreenThumb handbook. However, most of the case studies were familiar with this regulation and were able to comment on their experiences. For more about gardener's opinions about GreenThumb workshops, see section 4.4.1.

<sup>13</sup> For a point of reference, SWS garden pays \$543 (down from \$617 in 2020) in annual insurance fees.

<sup>14</sup> Anonymous, personal communication, April 5, 2021.

License Agreement, specific political activities were prohibited to secure and maintain their tax-exempt 501c3 status. Prohibited activities included posting/distributing suggestive political statements during garden activities or on social media, donating money or using BLT resources to support candidates (Bronx Land Trust, n.d.b). So, although these gardens did participate in some political activism (i.e., writing letters of support, signing petitions), IRS rules did make them more cautious about the *degree* of their political engagement and thus resulted in self-regulatory behavior. The fear of losing 501c3 tax-exempt status and potential risk of federal punishment were likely to have deterred these gardens from engaging in more explicit political acts of contestation.

#### 4.2.2. Contestation

All gardens demonstrated some form of contestation against the government by explicitly resisting or challenging government regulations or implicitly by engaging in letter writing campaigns to local officials in support of garden-related issues. Explicit contestation was present in the form of protests, petitions and pushing legal ‘grey areas’ of GreenThumb’s formal policies.

Two petitions took place during this research: the first was in retaliation to burdensome clauses in the 2019 GreenThumb Licensing Agreement while the second was in support of recognizing UCGs as legally protected spaces. Concerning the first petition, leaders from NYCCGC and New York Environmental Law and Justice Project (NYELJP) mobilized dozens of GreenThumb gardens, and non-gardeners, to collectively reject the proposed 2019 GreenThumb Licensing Agreement because it presented formal rules that would limit gardens' ability to function. Frequent website postings, organizing rallies, and circulating a formal petition were some of the ways in which NYCCGC urged gardeners not to sign the new Licensing Agreement. In an interview with 138th St. Garden, gardeners explained that they refused to sign the Agreement after hearing about it from “a key contact” in the garden network who is involved with NYCCGC and who advises government agencies on food-related issues:

I refused to sign that [GreenThumb] lease, based on those rules that they mandated without letting all the other community gardens have a say in it...I ain't signing that shit. They did this without our permission. [...] We never even discussed it, [GreenThumb] never even brought it up. They just said ‘[you] got to do it, we changed the rules’. No! You can't do that!<sup>15</sup>

The other petition, From the Ground Up, was also written and championed by NYCCGC, as well as another CS organization, Earth Justice. This petition requested NYC agencies designate 40 UCGs as Critical Environmental Areas (CEA) under the NYS Environmental Quality Review Act. This Act would legally protect community gardens by ensuring environmental impact assessments are conducted before any construction/development projects take place within a garden area (Earth Justice & NYCCGC, 2020). Among the 50+ signatories were SWS garden, Green Guerillas, and

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<sup>15</sup> Anonymous, personal communication, April 5, 2021.



Small Axe Peppers. Gardeners from 138th St. expressed interest in signing and suggested that petitions are instrumental in having their voices heard:

You have to make noise... You need to let them know that the community has a say. We get that you own this, but we take care of this. We should have a say in what goes on. Without us, you wouldn't be here.<sup>16</sup>

Acts of contestation were not always so obvious and existed more subtly by pushing legal boundaries or ignoring formal regulations completely. For example, during an interview with SWS garden members, they described their relationship with GreenThumb by saying that:

We don't get all their perks. We are just a simple agreement that says we will run this garden in the same likeness as GreenThumb... So, you shouldn't be drinking and stuff like that, but you know, we're a little lax because it's Bronx Land Trust, you know... It's just an agreement, it's not a contract because they don't own us at all. They just agree that we're in partnership with them and that we do our due diligence.<sup>17</sup>

While this demonstrates pushing legal boundaries, 138th St. Garden was observed to ignore some official regulations completely by not notifying GreenThumb before some garden events and, at one point, actually refused to host a GreenThumb event until the agency delivered long-awaited fencing materials. Interviewees from 138th St. Garden expressed their lack of faith in GreenThumb's inefficient services:

Interviewee A: [GreenThumb] is willing to negotiate, but they're slow.

Interviewee B: When you ask for anything it's a process... It's simple, we need this and this...why is there a debate? [...] It makes the work harder. [...] The gardeners don't know. [...] The garden leader looks for other ways to provide these things.

Interviewee A: I make it up myself, I improvise.

Interviewee B: One man's garbage is another man's treasure. We find stuff and make it happen. If you sit back and rely on GreenThumb, or the City, for everything, you really won't get anywhere.

Interviewee A: 'Cuz everything is bureaucratic.<sup>18</sup>

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<sup>16</sup> Anonymous, personal communication, April 5, 2021.

<sup>17</sup> Anonymous, personal communication, April 11, 2021.

<sup>18</sup> Anonymous, personal communication, April 5, 2021.

These interviewees went on to explain that since the City is so slow to respond to their needs, they prefer to collaborate with other CS organizations, like Green Guerillas, to acquire materials.

#### 4.3.3. Collaboration

While all garden interviewees rated their relationship with the government as ‘willing to negotiate and/or are flexible when it comes to finding common ground and understanding [the garden’s] needs’ (Figure 6), few observations of genuine collaboration between government and gardeners were present during empirical fieldwork. Only RRHVG demonstrated genuine collaboration with government actors while other manifestations of collaboration were relatively weak.

The most robust example of collaboration was in NYBG which has an official ‘government and community relations’ division within their institutional structure. This is not surprising as this garden is the most funded, staffed, and materially equipped garden of all the case studies. According to one employee, the NYBG has cultivated a relationship with the City over its 129-year history in a few ways. First, several elected officials sit on the NYBG Board of Trustees and advocate for the garden’s interests among professional colleagues. Next, the Edible Academy regularly updates and informs the NYC City Council about their educational programs and the benefits they provide to students. For example, the Edible Academy hosts a school program that specifically supports Title 1 Schools<sup>19</sup> in the surrounding area. This program is in part due to support from the City Council. In return for this support, the Edible Academy is very transparent with this agency; they send program evaluation summaries, student and teacher work samples, and letters of support from program participants to the City Council “in hope that each cycle of the City budget continues to include this program support.”<sup>20</sup> These strategic efforts contribute to several City and State government agencies providing financial support to the Edible Academy, and the NYBG more broadly. This support is formally recognized at the Edible Academy’s gate entrance on a plaque, and on the NYBG public website.

Most cases expressed the importance of establishing and maintaining good relationships with either local government contacts or community members that are politically active, however only the NYBG had a formal government relationship-building strategy. Yet, relationships with government officials were observed to help settle single-issue disputes between gardeners and government agencies at 138th St. by helping speed up the delivery of GreenThumb materials and supplying gardeners at Bissel Gardens with information and resources about current socio-political affairs via email communications. A common challenge with government relationships however

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<sup>19</sup> Title 1 Schools is a federal program under the Every Student Succeeds Act (ESSA) that provides financial assistance to schools with a high percentage of children from low-income families in order “to provide all children a significant opportunity to receive a fair, equitable, high-quality education and to close educational achievement gaps” (NYSED, n.d.).

<sup>20</sup> Anonymous, personal communication, April 8, 2021.

is changing political administrations which require gardeners to continue re-establishing their goals and accomplishments to new elected officials every few years.<sup>21</sup>

Potential for collaboration was identified via monthly Bronx Community Board meetings, however, gardens in this research did not express their participation in this domain. Community Board meetings are open to the public for residents to represent their district and discuss specific issues; the Bronx has a total of 12 Community Boards and their main responsibility is to receive complaints from community residents and manage special projects that cater to their community's needs (New York City Mayor's Community Affairs Unit, n.d.). However, it is important to highlight that these Board meetings are strictly advisory and are not involved in formal law-making or policy-making decisions; moreover, Board members are either nominated by City Council members or appointed by Borough Presidents (ibid), which may limit participation for some community members interested in formally joining. One interviewee at 138th St. Garden discussed that in previous years, a past garden member had attended Community Board meetings, but in their opinion, these meetings are not productive because public feedback is not taken into genuine consideration. The gardener suggested that although these collaborative spaces (i.e., community board meetings) give a perception of democratic participation, in reality they only provide superficial participation:

[Community board meetings] are City things...that's only to gratify the masses, but the decision's already been made... It's just for show. [They'll be like] 'I don't care what you're going to say, but we're going to listen to your grievances,' [and then they] go on with the project [anyway].<sup>22</sup>

Another avenue for potential collaboration between the government and gardeners is through GreenThumb Outreach Coordinators. These GreenThumb employees are gardeners' 'first point of contact' and responsible for conducting at least one site inspection per year to communicate and share information with gardens (NYC Parks, 2019a). However, interviewees at 138th St. Garden discussed their *lack* of collaboration with their GreenThumb coordinator, especially regarding their ability to choose/suggest GreenThumb workshop topics. Interviewees expressed frustration and resentment towards GreenThumb for (1) requiring them to attend workshops that were irrelevant to their interests and needs and (2) never asking them about the type of workshops that would be of interest to them or their garden:

Why would I participate in something I already have knowledge in? Send me something I don't know about. Ask me [about topics I want to learn more about]!<sup>23</sup>

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<sup>21</sup> One interviewee from Bissel Gardens stressed this point is especially important in post COVID environments where so many important CS organizations are competing for government attention.

<sup>22</sup> Anonymous, personal communication, April 5, 2021.

<sup>23</sup> Anonymous, personal communication, April 5, 2021.

During an informal interview with a GreenThumb employee, she suggested that GreenThumb does consider gardeners' interests in deciding workshop topics because in past years a survey had been distributed to collect gardeners' interests for workshop ideas. Moreover, the employee suggested that through informal conversations between gardeners and GreenThumb outreach coordinators during (annual) garden visits, it was possible to determine relevant workshop topics for gardeners. Yet, annual garden visits and a one-time survey distribution are not reflective of sustained collaboration and do not give gardeners a chance to meaningfully engage; community-specific issues are always in flux and touching base with gardeners once a year does not provide sufficient opportunity for gardeners to be 'active' participants in decision-making processes and adequately express their interests or needs.

Finally, NYCCGC, on behalf of all UCGs in NYC, was able to pressure the government into collaborations over the GreenThumb Licensing Agreement. In response to public criticism and CS protests against the 2019 Agreement, 13 elected officials signed a formal letter to the Commissioner of the NYC Parks and Recreation Department characterizing GreenThumb as “an agent of enforcement rather than a garden-friendly working partner” and urging the agency to continue “meaningful discussions with community leaders and garden advocates to resolve outstanding issues” (Hoylman, 2019). Community leaders from NYCCGC organized a Town Hall meeting which voted for a moratorium on signing the new licensing agreement until concerns with GreenThumb were addressed (NYCCGC, 2019a). The ensuing negotiations between the NYC Parks Department and NYCCGC resulted in the Parks Department extending the License deadline and modifying some sections in the GreenThumb handbook (NYC Parks and Recreation, 2019a). However, lingering disputes remain publicized on the NYCCGC website (2019b) and an interviewee from NYCCGC described these modifications as only “low level changes.” In an informal interview with a member of the NYC Parks Department it was stated that there was “collaboration” between the Parks Department and garden groups during the development of the Licensing Agreement through “unprecedented outreach to all GreenThumb garden groups, including NYCCGC.”<sup>24</sup> The interviewee suggested that the high approval rating (more than 95% of garden groups signed the Agreement) was a sign of “a successful licensing process characterized by continued engagement with garden groups before and after the licenses were written.”<sup>25</sup> However, based on interviews with 138th St. Garden, there was no GreenThumb outreach to discuss the Agreement (see section 4.2.2) before it was created, and, to date, 138th St. Garden has still not signed. Moreover, a representative from NYCCGC suggested that the only reason the majority of gardeners signed was because they needed critical resources from the City (see section 4.2.4 for more details).

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<sup>24</sup> Anonymous, personal communication, June 10, 2021.

<sup>25</sup> Ibid.

#### 4.2.4. Cooptation

Cooptation was the least evident type of interaction observed in this research (Table 5a). No observations were made of GreenThumb or other City agencies encouraging gardeners to commercialize their products, scale up their production methods or sell their products in corporate retail stores. Moreover, no observations of gardeners internalizing neoliberal values such as competitiveness, specialization or laissez-faire free market capitalism were evident. In fact, the opposite was observed whereby all gardens were actively involved in donating and sharing surplus food to surrounding neighbors and communities. Gardeners expressed a strong sense of using surplus food to strengthen communities during the COVID pandemic when people were confined to their homes and access to fresh, nutritious food was difficult.

However, although evidence of cooptation was not directly observed during field-research at the case study gardens, after speaking with a representative from the NYCCGC, it became clear that mechanisms of cooptation were present during the Licensing Agreement negotiations. The interviewee described the negotiation process as “nasty,” “fascist,” and “anti-union” because the government showed “no respect for the volunteers that run these gardens.”<sup>26</sup> The interviewee went on to suggest that officials refused to meet to discuss his revision suggestions about insurance-related policy clauses and alluded that the only reason gardeners signed the License Agreement was because they “were coopted” and needed resources. The interviewee suggested that the government stopped turning on water for gardeners that did not sign the Agreement, and thus the only way to keep the gardens open was to sign. Moreover, the interviewee went on to suggest that several UCGs had undocumented immigrants participating in their gardens and signed the Agreement to avoid legal issues. Finally, the interviewee explained that when some gardeners did sign, they attached a list of complaints to the Agreement. However, the interviewee expressed that, in his opinion, these complaints were rejected and ignored. This perspective of the negotiation process demonstrates government actors using top-down behavior to control citizenry and make them conform to their Agreement. This dilution of grassroots innovations’ agency led the interviewee to suggest that the best way to remedy these relationships is through “honest dialogue” with a new administration.

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<sup>26</sup> Anonymous, personal communication, June 29, 2021.

		Actor Interactions	
		Coopting	Collaborating
Garden Case Studies	138th Street Garden	<ul style="list-style-type: none"> <li>•Lack of internalized neoliberal values (i.e., privatization, competition). Instead, UCG donated/shared food surplus to community.</li> <li>•No evidence of government encouraging commercialization</li> </ul>	<ul style="list-style-type: none"> <li>•Previously, a member had attended Community Board meetings</li> <li>•Lack of collaboration with Outreach Coordinator</li> <li>•Maintains relations with community members that are politically active (President of NYCCGC)</li> </ul>
	Bissel Gardens	<ul style="list-style-type: none"> <li>•Lack of internalized neoliberal values (i.e., privatization, competition). Instead, UCG donated/shared food surplus to community.</li> <li>•No evidence of government encouraging commercialization</li> </ul>	<ul style="list-style-type: none"> <li>•Maintains 'good' relationships with local officials; but recent elections have affected these relationships</li> <li>•Expressed that is important to re-establish organization goals and mission to new local officials; especially in post COVID environment where many groups are competing for government attention</li> </ul>
	RRHVG	<ul style="list-style-type: none"> <li>•Lack of internalized neoliberal values (i.e., privatization, competition). Instead, UCG donated/shared food surplus to community.</li> <li>•No evidence of government encouraging commercialization</li> </ul>	<ul style="list-style-type: none"> <li>•Strong transparency with City Council about garden program impact</li> <li>•Elected officials participate in NYBG's Board of Directors</li> <li>•Government &amp; community relations division within institutional structure</li> </ul>
	Sun, Wind, & Shade	<ul style="list-style-type: none"> <li>•Lack of internalized neoliberal values (i.e., privatization, competition). Instead, UCG donated/shared food surplus to community.</li> <li>•No evidence of government encouraging commercialization</li> </ul>	n/a

Table 5a: Actor Interactions Results Summary, part 2

To summarize the above interactions, evidence of containing, contesting, coopting, and collaborating interactions between government agencies and UCGs were present in this research. Examples of containment included explicit restrictive regulations, subtle modes of governmentality and implicit gardener self-regulation. Mechanisms of contestation were evident through explicit collective petitions and protests led by CS actors as well as more subtle acts of gardeners pushing legal grey area boundaries. With respect to collaboration, the NYBG had the most collaborative relationship with the government, likely attributable to their formal strategy to maintain transparency and Board participation with elected officials, as well as their 100+ year history as a recognized culturally and environmentally significant NYC institution. While other garden cases suggested that personal relationships with elected officials or politically involved community members were important, there was less of a formalized strategy to cultivate these relationships. Moreover, evidence of City government actors working with gardeners was present (i.e., negotiating the Licensing Agreement, elected officials writing a letter in support of gardeners to NYC Parks, GreenThumb Outreach Coordinators conducting annual garden visitors/distributing a survey to collect gardener interests), however, most of these attempts at collaboration were weak.

Finally, while other collaborative spaces were identified (i.e., Community Board meetings, GreenThumb Outreach Coordinators), gardeners in this research did not engage with these formal mechanisms. Finally, cooptation was not evident with respect to government agencies trying to encourage the commercialization or scale-up of garden products, however, during the Licensing Agreement negotiations, evidence of top-down mechanisms and the dilution of grassroots' ideas suggests evidence of cooptation.

### 4.3. Manifestations of Collective Empowerment

Both strategic and non-strategic conceptualizations of collective empowerment were present in this study across all gardens. The discussion below is divided into the four components of collective empowerment: collective belonging, involvement in the community, control of community organization and community building (Hur, 2006). The discussion that follows only highlights the points most relevant to the research questions and final discussion.

#### 4.3.1. Collective Belonging

First impressions of collective belonging were observed through gardeners' language during interviews which included using words like "family," "community," and "neighbors" when discussing social relationships between garden participants. Moreover, during these interviews, gardeners' facial expressions, tone of voice, and level of excitement exuded pride and admiration for the beautiful spaces they helped create. Participants demonstrated their involvement in the garden by investing time, energy, and personal resources, inviting friends and family to garden activities, and taking accountability for the group by assuming leadership roles by joining task-oriented groups (e.g., Board member, program leader). Moreover, a deep sense of loyalty and support was observed by the fact that, throughout the pandemic when all gardens were officially closed to the public for social activities, all gardens shared and/or donated garden produce with not only UCG members, but also with their neighbors and the broader community.

SWS demonstrated the most robust sense of collective belonging among not only SWS gardeners, but also among the BLT network of gardeners. First, evidence of personal identification with the surrounding community and related feelings of inclusivity were observed when one gardener shared:

The neighborhood isn't the best...you know, you got the drug dealers and stuff like that. But then again, they are this hood. And we embrace them anyways. They're all welcome to come in.<sup>27</sup>

This quote demonstrates a degree of loyalty to one's community, free from judgement or exclusion. Another example of loyalty from this case was their unique membership payment strategy. All 18 BLT gardens, including SWS, are required to pay an annual \$150 membership fee. If any of the BLT gardens cannot pay their share of bills/fees (e.g., insurance, City fines, plumbing, etc.), the \$150 membership fee from *other* BLT gardens will assume these costs. This self-crafted rule demonstrates a willingness to support others, and a strong sense of social solidarity among the BLT gardener community. This practice helps cultivate a sense of collective belonging that helps 'vulnerable' gardens remain involved in the BLT network and demonstrates gardeners taking accountability for one another.

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<sup>27</sup> Anonymous, personal communication, April 11, 2021.



A common theme observed amongst all case studies was gardeners' inherent desire to make a meaningful and positive impact in the lives of others. Especially in volunteer-run gardens where informal recruitment processes were offered, community members had direct opportunities to get involved, take action, and contribute their unique ideas and skills to a collective group of peers. Intrinsic motivation to improve collective well-being was observed to be related to participants' personal identification with some aspect of the UCG. One observation of this notion was a gardener from 138th St. identifying with the garden neighborhood; he explained that he grew up in the neighborhood and attended the school across the street from the garden. Inspired by the well-respected local Pastor who was "a pillar to the community," this gardener wanted to follow in his footsteps, share his legacy, and make the garden a safe space to keep community members engaged. He explained:

When I was growing up, we had all these gyms... we'd go play ball... there was always an avenue [for engagement]. [...] Now with the way it's been [in the City] ... [even] prior to Coronavirus, 'cuz of the [lack of] funds, [there is a lack of these types of avenues]. [...] That's how you get a big crime rate and kids hanging around the corner selling drugs, that's because they never had an avenue [for engagement], like when I grew up.<sup>28</sup>

This gardener's inherent knowledge of local socio-economic issues, coupled with their childhood attachment to the neighborhood, fostered a sense of loyalty to the community and explains their desire for wanting to create a safe, engaging space for others through the garden. Another observation of 'identification' was evident when a SWS garden participant positively related to a specific garden-related activity leading her to take on a leadership role in the garden.

[When I first got involved], I started having these events, and for me, in every event, I am always looking for the one person, out of the 100 that showed up, that had the biggest interest or the biggest shock, or [that say] 'oh this is amazing' or 'oh this is a community garden? I lived here 20 years and I never knew that you could come in here'. [...] I'll take that one person and see if they fit in perfectly somewhere, as in a perfect new member, or a perfect Board member. [...] That's how I met [our current] fundraising coordinator. [...] I did a small event here and she was a friend of a friend, she loved it here, she said 'can I rent this? ... I want to have another art event'. [...] And then slowly every time she had an event, one person out of that event, I needed to figure out how to keep. [...] [When another BLT garden needed a new steward] we put [her] in charge, the girl that rented once and loved it here. Put her in charge, she's been fresh blood for the last 2 years. She's brought so many new young people.<sup>29</sup>

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<sup>28</sup> Anonymous, personal communication, April 5, 2021.

<sup>29</sup> Anonymous, personal communication, April 11, 2021.

These quotes suggest that ‘identification’ with a garden-related, or community-related, aspect is important for capturing people’s attention, helping people feel connected, and ultimately results in people wanting to remain engaged with the UCG. These qualities are indicative of collective belonging and can be seen in Tables 6 and 6a.

It is important to note however that while there was evidence for collective belonging, the sense of community belonging was also weakened due to COVID. Most interviewees expressed that due to COVID, the motivation for gardeners to join, or visit, the garden was mostly to seek out peaceful greenspace and spend time outside. Interviewees explained that prior to COVID, participants sought greenspace *and* social connections. This suggests a relatively weakened sense of collective belonging with respect to social relationships which is not surprising as COVID restrictions prevented garden activities from happening for over a year. The daily and weekly operations of garden activities invite gardeners and community members to collaborate in the processes of organizing, gathering materials for, scheduling, and managing these activities. Working together cultivates social relationships which contribute to building a sense of collective belonging. A year of social isolation is likely to have negatively affected these personal relationships. However, at the same time, COVID also forged a new layer of loyalty and allegiance to one’s community as all cases expressed that while their garden gates were closed to the public, the few participants that remained active took accountability for others by sharing and donating surplus food with their communities. One woman from 138th St. Garden made ‘goodie bags’ of fresh produce for her neighbors in her apartment building while another woman at SWS often brought fresh produce to share with her church community. Moreover, in response to immediate food needs during the pandemic, Bronx Green Up (within the NYBG) coordinated a collective network of 18 local community gardens and farms - which includes Bissel Gardens - to increase local food production and distribution (NYBG, 2020). This suggests that while individual relationships may have been strained by the pandemic, the sense of community belonging with UCG’s local communities strengthened because of gardeners’ willingness to invest time and effort in supporting their neighbors’ food needs.

		Garden Case Studies	
		138th Street	Bissel Gardens
Indicators of Collective Empowerment Collective Belonging	Identification	<ul style="list-style-type: none"> <li>•Pride in garden aesthetics &amp; peer accomplishments</li> <li>•Describes garden community as "we"</li> <li>•Intrinsic identification with garden activities &amp; neighborhood</li> </ul>	<ul style="list-style-type: none"> <li>•Pride in garden growth since inception</li> <li>•Describes garden community as "neighbors"</li> <li>•Intrinsic identification with garden activities &amp; neighborhood</li> </ul>
	Involvement	<ul style="list-style-type: none"> <li>•Accountability for others</li> <li>•Willingness to invest time &amp; effort</li> <li>•Invites friends &amp; family to UCG</li> </ul>	<ul style="list-style-type: none"> <li>•Accountability for others</li> <li>•Unequal time commitment causes frustration and negatively effects some participants' willingness to invest effort</li> <li>•Invites friends &amp; family to UCG</li> </ul>
	Loyalty	<ul style="list-style-type: none"> <li>•Consideration for others and community at large</li> <li>•Affection for peers</li> <li>•Desire to remain involved in UCG</li> <li>•Veteran members</li> <li>•Post COVID: Greenspace &gt; social connections</li> </ul>	<ul style="list-style-type: none"> <li>•Consideration for others and community at large</li> <li>•Affection for peers</li> <li>•Desire to remain involved in UCG</li> <li>•Veteran members</li> <li>•Post COVID: Greenspace &gt; social connections</li> </ul>

Table 6: Collective Belonging Results Summary, part 1

		Garden Case Studies	
		RRHVG	Sun, Wind, & Shade
Indicators of Collective Empowerment Collective Belonging	Identification	<ul style="list-style-type: none"> <li>•Pride in Edible Academy capital project (\$28 million project with sustainable infrastructure)</li> <li>•Intrinsic identification with garden activities</li> </ul>	<ul style="list-style-type: none"> <li>•Pride in unique garden features &amp; peer accomplishments</li> <li>•Describes garden community as "family"</li> <li>•Intrinsic identification with garden activities &amp; neighborhood</li> </ul>
	Involvement	<ul style="list-style-type: none"> <li>•Paid employment</li> <li>•Invites friends &amp; family to UCG</li> </ul>	<ul style="list-style-type: none"> <li>•Accountability for others</li> <li>•Willingness to invest time &amp; effort</li> <li>•Invites friends &amp; family to UCG</li> </ul>
	Loyalty	<ul style="list-style-type: none"> <li>•Consideration for others &amp; community at large</li> <li>•Affection for participants</li> <li>•Desire to remain involved in UCG</li> <li>•Veteran members &amp; staff</li> <li>•Post COVID: Greenspace &amp; social connections</li> </ul>	<ul style="list-style-type: none"> <li>•Consideration for others and community at large</li> <li>•Affection for peers</li> <li>•Desire to remain involved in UCG</li> <li>•Veteran members</li> <li>•Post COVID: Greenspace &gt; social connections</li> </ul>

Table 6a: Collective Belonging Results Summary, part 2

#### 4.3.2. Involvement in the Community

Participation opportunities were available in all gardens through a myriad of activities including physical gardening, diverse programming (e.g., yoga, education, nutrition/cooking), volunteering for miscellaneous projects, or taking part in garden leadership meetings (Table 7 and 7a). The non-traditional learning environment of the majority of UCGs created a low-pressure space for people to get involved in activities which, if hosted in other more formal spaces, such as a yoga studio or a school classroom, maybe would have presented more barriers to entry (e.g., intimidation, cost, or advanced planning). Experiential participation activities largely encouraged bottom-up social learning and democratic participation, not only during the actual activities, but also during the planning, organizing, and outreach processes. Evidence of this was seen through the fact that all volunteer-run gardens offered opportunities for ordinary community members to host and/or lead programming in topics they were interested in, thereby giving people the chance to be autonomous and share their skills and knowledge with others.

While some UCGs were observed to transform garden-goers into garden members (see section 4.3.1), they were also shown to transform garden members into community leaders *outside of the garden*. One interviewee at Bissel Gardens expressed that her involvement in the garden empowered her to get involved in other aspects of community, including starting her own community group, Urban Cultivated, which is related to food distribution specifically:

[My involvement with the garden] has empowered me to do *other* things in the community. Starting Urban Cultivated and coming up with other ideas that are not specifically, or only, about the garden. [...] I wouldn't be thinking about other open spaces for other people in the community or healthy eating, or at least not in the same way, of growing vegetables and making people aware of how to do that.<sup>30</sup>

This gardener further explained that she was able to leverage her involvement with Bissel Gardens to help facilitate activities for Urban Cultivated. For example, she incorporated ideas about health and food access from Urban Cultivated into Bissel Gardens' Farmers Market by initiating the distribution of Health Bucks<sup>31</sup> and holding nutrition demos at the market. She described this dual involvement as "wearing different hats." This suggests evidence of (1) conscientization in which involvement in the garden increased this participant's critical awareness of local issues related to food production and access, nutrition, and education, which led her to develop her own CS organization and (2) a mobilization of resources in which she was able to draw on volunteer capacity and financial support from the Market to promote other food initiatives via Urban Cultivated.

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<sup>30</sup> Anonymous, personal communication, April 5, 2021.

<sup>31</sup> NYC Health Bucks are \$2 coupons that can be used to purchase fresh fruits and vegetables at all NYC Farmers Markets (NYC Health, n.d.). Health Bucks are available to recipients of the federal nutrition assistance program, the Supplemental Nutrition Assistance Program (SNAP).

Finally, it is important to recognize that all UCGs demonstrated strong social cohesion skills. Gardeners were observed to have robust social networks, largely made up of local CS actors, that mostly resulted from informal recruitment methods, peer-to-peer social connections, and outreach efforts. The social network helped raise awareness of garden-related activities/information. While it is important to note that other CS organizations and GreenThumb assisted with providing community engagement opportunities for gardeners (e.g., GreenThumb and Green Guerilla workshops), additional volunteer capacity for UCG activities particularly came from CS actors. This helped to relieve feelings of ‘gardener burnout.’ It was observed that across all volunteer-run gardens, there was a need to mobilize more volunteers and recruit younger members/participants to assist with garden operations, especially since most gardeners were elderly.

		Garden Case Studies	
		138th Street	Bissel Gardens
Indicators of Collective Empowerment Involvement in Community	Open Hours per Month	156+ hrs/mo	n/a
	Participation Opportunities	<ul style="list-style-type: none"> <li>•Diverse activities+/programming</li> <li>•Volunteer opportunities</li> </ul>	<ul style="list-style-type: none"> <li>•Diverse activities+/programming</li> <li>•Volunteer opportunities</li> <li>•Board meetings</li> </ul>
	Organizational Benefits to Participation	<ul style="list-style-type: none"> <li>•Skill-building</li> <li>•Recruitment opportunities</li> <li>•Passive to active garden member</li> </ul>	<ul style="list-style-type: none"> <li>•Skill-building</li> <li>•Recruitment opportunities</li> <li>•Passive to active community member</li> </ul>
	Costs to participation	<ul style="list-style-type: none"> <li>•Limited funds</li> </ul>	<ul style="list-style-type: none"> <li>•Increased need for capacity due to aging membership</li> </ul>

Table 7: Involvement in Community Results Summary, part 1

		Garden Case Studies	
		RRHVG	Sun, Wind, & Shade
Indicators of Collective Empowerment Involvement in Community	Open Hours per Month	140+ hrs/mo	60+ hrs/mo
	Participation Opportunities	<ul style="list-style-type: none"> <li>•Diverse activities+/programming</li> <li>•Volunteer opportunities</li> <li>•Employment opportunities</li> <li>•Board meetings</li> </ul>	<ul style="list-style-type: none"> <li>•Diverse activities+/programming</li> <li>•Volunteer opportunities</li> <li>•Board meetings</li> </ul>
	Organizational Benefits to Participation	<ul style="list-style-type: none"> <li>•Skill-building</li> <li>•Recruitment opportunities</li> </ul>	<ul style="list-style-type: none"> <li>•Skill-building</li> <li>•Recruitment opportunities</li> <li>•Passive to active garden member</li> </ul>
	Costs to participation	<ul style="list-style-type: none"> <li>•Advanced planning for activities makes it difficult to be flexible to new event ideas</li> </ul>	<ul style="list-style-type: none"> <li>•Increased need for capacity due to aging membership</li> </ul>

Table 7a: Involvement in Community Results Summary, part 2

### 4.3.3. Control of Community Organization

Through organizing, raising awareness of, and encouraging participation in, diverse community activities, gardeners across all case studies exercised a high degree of leadership competence (Table 8 and 8a). With respect to policy control, while UCGs were limited in their ability to influence local policy independently, they did prove effective at influencing local food norms in their communities by increasing awareness of, and exposure to, alternative food practices (Table 8 and 8a).

During UCGs' diverse experiential activities, a wealth of skills, resources and knowledge were exchanged. This directly and indirectly enabled participants with multidisciplinary skills which contributed to individual and collective leadership competence. Evidence of skill-building was observed during informal peer-to-peer interactions and during formal and informal programming. For example, during fieldwork, I observed Bronx Green Up (NYBG) visit Bissel Gardens to assist with transplanting. While Bronx Green Up provided 'professional' advice about strategic plant placement and related horticulture science, ordinary gardeners at Bissel Gardens were also able to share their personal knowledge about how the garden's unique soil, sun, and shade characteristics impact growing conditions. Together, these actors were able to use this information to make the best transplanting decisions. This social learning exchange was common during UCG activities. During the annual BLT Board meeting, I observed peers willingly exchange advice about rat-control techniques, practice public speaking skills, resolve internal gardener conflicts, and collectively make decisions by conducting group votes. Moreover, several gardeners expressed that they took it upon themselves to learn certain skills (e.g., website development, grant writing) to help their garden succeed. One interviewee from SWS garden expressed that although he joined the garden group with no administrative experience or non-profit management knowledge, 'little by little' he was able to learn best practices to steer his colleagues and share this knowledge with others. Soft skills were not overlooked either as UCGs were also observed to be effective at helping individuals gain and/or (re)build self-esteem. One gardener at 138<sup>th</sup> St. Garden explained:

I'm a domestic violence survivor. [The garden] shows me that I can control my environment, meaning I can control how [the] flowers grow, I can control what grows... I can control my life. It gives me the sense to say...that I'm beautiful, because what I grow is beautiful...and I can have peace, if I choose to have peace. No one can take that away from me, it shows me how there's beauty in everything.<sup>32</sup>

These observations suggest that UCGs not only contributed to expanding participants' 'skill toolbox' but also gave them opportunities to exercise these new skills in a comfortable, supportive environment. Gaining and/or strengthening skills naturally leads people to feel more confident and helps them become better leaders. While individual leadership competence may resemble individual empowerment, skill-building does present opportunities for collective empowerment

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<sup>32</sup> Anonymous, personal communication, April 5, 2021.

because when individuals come together during UCG activities, they use their skills to take collective action and make collective decisions about garden-related issues. Moreover, evidence of gardeners using their skills to create their own community organizations (see section 4.3.2), or sharing their new-found skills with their garden colleagues, suggests that UCGs do affect power structures in communities as individual leadership competence spreads to others through social learning mechanisms. Thus, the ‘ripple effect’ of individual skill-building contributes to community members collectively exercising leadership competence and taking control of community organization.

Another example of gardeners taking control of community organization and leading their neighbors was evidenced by gardeners’ control of public dumping spaces (Table 8). Interviewees from 138th St. Garden and Bissel Gardens suggested that their gardens were previously garbage dumping sites before community members collectively took action to clean up the spaces. This suggests a degree of collective leadership competence as neighbors were able to organize themselves to reclaim these spaces as UCGs.

With respect to policy control, while the UCGs in this research were involved in aspects of political activism, they were limited in their influence. First, most gardens in this research were 501c3 nonprofit organizations which prevented them from engaging in political campaigning. While this did not exempt them from political activism, it did cause them to self-regulate their behavior and take a more ‘passive’ role in political acts of contestation to safeguard their tax-exempt status. Second, it is important to recognize that during the political petition initiatives that took place during this research (see section 4.2.2), gardeners were not acting alone - they acted in solidarity with other urbanites. NYCCGC was the primary leader and organizer of both petition initiatives. Their strength and political agency came from their ability to speak on behalf of *all* UCGs and garner support from other non-profit organizations, community advocacy groups, local enterprises and even some elected officials. NYCCGC was effective at capturing gardeners and non-gardeners’ attention by uniting broad counter-narratives (e.g., social justice, environmental justice, racial justice, community self-reliance) behind a single goal: the protection of UCGs. It is important to recognize that although the cases in this research did not lead these political initiatives, through their social solidarity and passive participation, they exercised their political agency as citizens and, in doing so, gained awareness of political inequities, democratic processes, and governmental practices. This suggests that (1) when influencing policies on a city-wide scale, support from additional actors is critical to politically participate from a greater position of strength and better take control of community organization and (2) political conscientization is possible during political acts of contestation.

Finally, UCGs were effective at exposing people to alternative food practices in line with sustainable food systems. UCGs were instrumental at increasing critical awareness of alternative food practices and promoting conscientization by: encouraging people to grow their own food (i.e.,

promoting self-reliance, producer subjectivity and food sovereignty discourses), attend Farmers Markets (i.e., fostering relationships between producers and consumers, raising awareness of short and local food supply chains), join community Food Hubs (i.e., promoting practices like ‘pay what you can harvest boxes’ and public friendly fridges), support alternative economic models (i.e., Small Axe Peppers), and volunteer with food donations (i.e., encouraging sustainable ways to manage food surplus and valuing unpaid labor). Moreover, several interviewees expressed that their relationship to food had changed since becoming involved in the garden, whether by being exposed to new fruits/vegetables and cooking techniques or by experiencing first-hand the fresher taste of locally grown produce compared to store-bought produce. While there was not sufficient evidence to suggest that first-hand exposure to these experiences resulted in people, and communities more broadly, changing their long-term food behavior, there was enough evidence to suggest that UCGs do influence local norms.

		Garden Case Studies	
		138th Street	Bissel Gardens
Indicators of Collective Empowerment Control of Community Organization	<b>Leadership Competence</b>	<ul style="list-style-type: none"> <li>•Organizes &amp; leads activities+/programming</li> <li>•Skill-building</li> <li>•Reclaim garbage dump as UCG</li> </ul>	<ul style="list-style-type: none"> <li>•Organizes &amp; leads activities+/programming, Board meetings</li> <li>•Skill-building</li> <li>•Reclaim garbage dump as UCG</li> </ul>
	<b>Policy Control</b>	<ul style="list-style-type: none"> <li>•Refused to sign 2019 GreenThumb Licensing Agreement</li> <li>•Alternative food practices (i.e., relationship to food, local food surplus donation, producer subjectivity)</li> </ul>	<ul style="list-style-type: none"> <li>•Letters of Support</li> <li>•Alternative food practices (i.e., Farmers Market, producer subjectivity, relationship to food)</li> </ul>

Table 8: Control of Community Organization Results Summary, part 1

		Garden Case Studies	
		RRHVG	Sun, Wind, & Shade
Indicators of Collective Empowerment Control of Community Organization	<b>Leadership Competence</b>	<ul style="list-style-type: none"> <li>•Organizes &amp; leads activities+/programming, Board meetings</li> <li>•Skill-building</li> <li>•Lead organizer of Bronx Community Food Hub Food Hub</li> <li>•Leader of Bronx Green-Up Outreach Program</li> </ul>	<ul style="list-style-type: none"> <li>•Organizes &amp; leads activities+/programming, Board meetings</li> <li>•Skill-building</li> </ul>
	<b>Policy Control</b>	<ul style="list-style-type: none"> <li>•Letters of Support</li> <li>•Alternative food practices (i.e., relationship to food, local food surplus donation, producer subjectivity, education)</li> </ul>	<ul style="list-style-type: none"> <li>•Signatory of From the Ground Up petition</li> <li>•Alternative food practices (i.e., relationship to food, local food surplus donation, producer subjectivity)</li> </ul>

Table 8a: Control of Community Organization Results Summary, part 2



#### 4.3.4. Community Building

UCGs were effective at fostering diverse, inclusive, and democratic communities among their participants. Bottom-up social interactions during UCG activities were observed to cultivate internalized notions of reciprocity among participants. One gardener at Bissel Gardens shared that:

Our conversations with people at the [Farmers] market were always about *sharing*, like even not just us, but also other customers coming and talking to each other and sharing about how they cook a certain food, and it's different from the other person, and then they're interested...[it's] that conversation that happens...and if I didn't do this and that [with the garden], I don't think I would have had an idea to do this or that [with other things]. [...] Now I'll get an email from the community board, and maybe in the past I might have just [thought] 'oh ok that's good information' [but] now I will email it to other neighbors...I may not be able to go but I'll be like, 'hey guys this is happening'. [...] As you share more with others, and invite others, even if you can't participate, then it reciprocates.<sup>33</sup>

Through informal conversations and voluntarily sharing resources with peers, community members organically create an environment based around trust and mutual respect. Here, people demonstrate their influence in the garden group by sharing their insight and expertise and passing along community news and resources. These qualities - reciprocity, trust, respect - naturally make it easier for people to work together, problem solve, and ultimately make collective decisions. Moreover, these same qualities make it easier for gardeners to lead and organize their neighbors (i.e., control of community organization) because there is a strong sense of trust already established.

Moreover, evidence of inclusivity was observed across all gardens which helped cultivate a strong sense of community. For example, gardeners at 138th St. Garden criticized the Puerto Rican, Korean and American flags that stood at the center of their neighbor's community garden. With only a fence separating the two community gardens, the interviewee said that showcasing flags causes people to think the garden is "territorial" and actually deters people from visiting the garden if they don't identify with those flags; "If you[re going to] have a flag, make sure you have *everybody's* flags."<sup>34</sup> This same sentiment was observed when this interviewee discussed his plans to re-paint the garden's 'inspiration board.' This wooden board included photos of culturally diverse celebrities, historical figures, and respected community members. The gardener explained his thoughtful selection strategy for such photos by saying: "I didn't want it to be all black, all Hispanic so I had different people [...] 'Cuz I wanted two black males, two black females, two Hispanic males and two Hispanic females, two white..."<sup>35</sup> This attention to ensure garden symbols

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<sup>33</sup> Anonymous, personal communication, April 5, 2021.

<sup>34</sup> Anonymous, personal communication, April 5, 2021.

<sup>35</sup> Anonymous, personal communication, April 5, 2021.

were non-exclusionary demonstrates this garden’s attempt to not only foster a culturally diverse sense of community whereby all participants felt welcome and accepted, but also indirectly raise awareness about racial inclusivity and racial justice.

Finally, across all case studies, gardeners shared common emotional connections which helped facilitate community building. First, gardeners shared empathy for community garden marginalization and oppression which included related fears and vulnerabilities surrounding land tenure issues, the persistent struggle to find new sources of financial and material support, or burdensome legal regulations. While not all gardens faced the same challenges, the network of support among gardeners was something they shared in common. An interviewee from Bissel Gardens expressed that “even if you're not immediately affected, you’re aware [of the struggles other gardens in your network face] and then you’re able to assist as needed” through actions like writing letters of support or sharing resources (e.g., knowledge & material) among neighbors<sup>36</sup>. Next, participants across all gardens shared a general interest in the natural world and a passion for the sense of peace and tranquility that accompanies spending time outside. While many gardeners suggested they enjoy the solitude of being in the garden, this ‘independence’ was not observed to cause a lack of community. One gardener at 138th St. shared: “Because we all want beauty, we all want health...we don’t need words to communicate.”<sup>37</sup> This suggests that although gardeners may not always socialize, they still feel emotionally connected to one another and to the garden space.

		Garden Case Studies	
		138th Street	Bissel Gardens
Indicators of Collective Empowerment Community Building	Influence	<ul style="list-style-type: none"> <li>•Goal to create "safe space" for community</li> <li>•Participation is valued &amp; appreciated</li> <li>•Informal culture of reciprocity</li> </ul>	<ul style="list-style-type: none"> <li>•Organizes Farmers Market for community</li> <li>•Participation is valued &amp; appreciated</li> <li>•Informal culture of reciprocity</li> </ul>
	Membership	<ul style="list-style-type: none"> <li>•Informal culture of inclusivity (i.e., rejects exclusionary flags)</li> </ul>	<ul style="list-style-type: none"> <li>•Informal culture of inclusivity</li> <li>•Small Axe Pepper member</li> <li>•Bronx Community Farm Hub member</li> </ul>
	Reinforcement	<ul style="list-style-type: none"> <li>•Social reward</li> <li>•Personal reward (i.e., skill-building, safety)</li> </ul>	<ul style="list-style-type: none"> <li>•Social reward</li> <li>•Personal reward (i.e., skill-building)</li> </ul>
	Shared Emotional Connection	<ul style="list-style-type: none"> <li>•Connection to the natural world/green space, well-being</li> <li>•Intrinsic motivation (i.e., volunteer culture)</li> <li>•Social relationships</li> <li>•Shared understanding of gardener difficulties</li> </ul>	<ul style="list-style-type: none"> <li>•Connection to the natural world/green space, well-being</li> <li>•Intrinsic motivation (i.e., volunteer culture)</li> <li>•Social relationships</li> <li>•Shared understanding of gardener difficulties</li> </ul>

Table 9: Community Building Results Summary, part 1

<sup>36</sup> Anonymous, personal communication, April 5, 2021.

<sup>37</sup> Anonymous, personal communication, April 5, 2021.

		Garden Case Studies	
		RRHVG	Sun, Wind, & Shade
Indicators of Collective Empowerment Community Building	Influence	<ul style="list-style-type: none"> <li>•Community educator &amp; employer</li> <li>•Participation is valued &amp; appreciated</li> </ul>	<ul style="list-style-type: none"> <li>•Goal to create a "safe zone" for community</li> <li>•Participation is valued &amp; appreciated</li> <li>•Informal culture of reciprocity</li> </ul>
	Membership	<ul style="list-style-type: none"> <li>•Informal culture of inclusivity</li> <li>•Lack of employee sense of belonging (i.e., lack of team meetings due to rigid staff schedules)</li> <li>•Small Axe Pepper member</li> <li>•Bronx Community Farm Hub member</li> </ul>	<ul style="list-style-type: none"> <li>•Bronx Land Trust member</li> <li>•Informal culture of inclusivity</li> </ul>
	Reinforcement	<ul style="list-style-type: none"> <li>•Social reward</li> <li>•Personal reward (i.e., employee compensation)</li> </ul>	<ul style="list-style-type: none"> <li>•Social reward</li> <li>•Personal reward (i.e., fulfills food needs for some participants, skill-building)</li> </ul>
	Shared Emotional Connection	<ul style="list-style-type: none"> <li>•Connection to the natural world/green space, well-being</li> <li>•Social relationships</li> </ul>	<ul style="list-style-type: none"> <li>•Connection to the natural world/green space, well-being</li> <li>•Intrinsic motivation (i.e., volunteer culture)</li> <li>•Social relationships</li> <li>•Shared understanding of gardener difficulties</li> </ul>

Table 9a: Community Building Results Summary, part 2

To summarize the various manifestations of collective empowerment, it was observed that all cases demonstrated all components of collective empowerment. First, collective belonging was evident in gardeners' language and through their various identifications with the UCG (e.g., neighborhood pride or garden-activity passion). It was found that identification helps facilitate feelings of loyalty to the garden and to one's peers. Moreover, COVID influenced collective belonging in two ways: on one hand, while individual relationships between gardeners were strained because of a lack of social events, on the other hand, through gardeners' effort to share food with, or donate food to, their neighbors, the sense of community belonging was strengthened. Next, UCGs offered a myriad of opportunities for people to become involved in the garden, and the community more broadly. Through garden events community members were able to meet, exchange skills and knowledge, mobilize strategic resources and take collective action in group activities. Then, with respect to control of community organization, UCGs were found to be effective at cultivating opportunities for participants to gain new hard and soft skills (i.e., leadership competence) and increasing awareness about alternative food practices (i.e., local norms). However, UCGs were limited in their ability to influence local policy due to (1) non-profit 501c3 status which prohibits (some) political engagement and (2) their small size; NYCCGC was observed to be a more effective community organizer as they were able to speak on behalf of *all* UCGs and unite non-gardeners in solidarity. This suggests that external actor support is critical for gardeners to participate from a greater political position of strength. Finally, concerning community building, UCGs were successful at fostering norms of reciprocity and inclusivity which contributed to

creating a strong sense of community. Moreover, gardeners across all case studies shared common emotional connections which helped them feel connected, even throughout COVID isolation. Taken together, these components of collective empowerment were found to be effective at nurturing critical conscientization processes, mobilizing resources, and creating social change.

#### **4.4. Modes of Governance influence on Collective Empowerment**

The hybrid modes of governance that characterized the UCGs in this research (Table 4) created a complex understanding of the relationship between MoG and collective empowerment. Since no garden exclusively matched all characteristics of one MoG (Figure 1), making explicit conclusions about MoG's influence on collective empowerment was difficult. However, by breaking down each MoG into specific characteristics, it was possible to decipher how separate features of distinct MoG related to collective empowerment. Only self and decentralized modes of governance are discussed below as these modes were most common across the case studies and thus yielded the most data to cultivate a rich discussion.

##### 4.4.1. Self Governance Influence on Collective Empowerment

Working with CS actors, implementing self-crafted formal rules and tailor-made goals, and interacting through bottom-up social learning mechanisms (i.e., characteristics of self governance, see Table 2) were demonstrated to contribute to cultivating all four components of collective empowerment.

Gardeners and nonprofit organizations were the main initiators in UCG events, taking lead roles in knowledge transfer, awareness raising, network creation and collective action. Preference to collaborate with local CS actors, over government or market actors, was observed in all gardens. This is likely because CS actors shared various things in common including intrinsic identification with the garden or community, inherent understandings of local community needs and dynamics, interests and enjoyment for garden-related activities, empathy for gardener struggles, and CS social actor connections. These commonalities naturally fostered feelings of loyalty and social solidarity among members of the UCG which contributed to cultivating collective belonging, community building, and helping gardens organize and lead their peers (i.e., control of community organization) in public engagement activities (i.e., involvement in the community). As such, evidence suggests that CS actors are important members for manifesting all components of collective empowerment in UCGs.

Social relationships were established in environments largely structured by self-crafted (non-imposed) rules of interaction which created low-pressure environments where people did not fear reprisal and thus felt a sense of safety and belonging. Moreover, bottom-up social interactions were effective at fostering informal norms of reciprocity and making people feel like their input provided value to the group. The high level of transparency that is created when all actors are involved in decision-making processes suggests that this mechanism of social interaction is favorable for achieving common goals. These qualities were observed to deliver benefits where top-down measures failed. For example, educational workshops by CS organizations (e.g., Green Guerillas, Bronx Green Up) were more sought after than GreenThumb workshops because of their inclusive and democratic approach. One interviewee from 138th St. Garden compared GreenThumb and Green Guerillas' workshops:

[Green Guerillas'] seminar was totally different. The difference was, with GreenThumb they tell you what this and that is. With Green Guerillas, they ask you. That's what I found the difference [to be]. How can *we* help *you*? Instead of...this is how we're going to help you. [...] Even though [it] was almost the same topic, their seminar was totally different. They're asking, what do you need? What's the biggest obstacle? What would benefit you and your garden? [...] There was more of a personal input...they were [asking] we want to know what's bothering you, what's wrong with your garden, and how can we make that better for you... GreenThumb basically was dictating, they never asked for input, [they said] here's what we're going to do...<sup>38</sup>

Preference for bottom-up workshops were also expressed by interviewees at SWS garden who shared that they enjoyed working with Green Guerillas because they “leave us independent...their goal is to help us stay autonomous.”<sup>39</sup> Beyond educational workshops, mechanisms of bottom-up social learning were observed in UCGs community events, programming, and Board meeting dynamics. As such, when people get involved in non-threatening spaces and are encouraged to participate, collective belonging and community building are cultivated. Moreover, these appreciated qualities also made it easier for gardeners to lead/organize their neighbors because they knew they had the respect and support from their community (i.e., control of community organization).

Finally, tailor-made UCG goals and targets were observed to be more reflective of, and responsive to, community values and interests. Contrasting a ‘one size fits all approach’ that is often associated with decentralized governance institutional features (i.e., uniform goals and targets), when gardeners can make their own goals and directly participate in the decision-making process, the goals are more likely to be accepted and respected by the group. This democratic approach is likely to strengthen gardeners’ ability to take control of community organization and reduce acts of contestation as more people are likely to support goals that they helped create. Gardeners at 138th St. implied GreenThumb employees were ill-equipped to adequately support their community because they lacked an understanding of what works well in their locality. One interviewee explained:

[GreenThumb] hire[s] all these college kids with degrees, [but] they don't have no idea as far as community. They know the book thing, [but] as far as the aesthetics of the different communities, or what people want - the older crew, the younger crew - what do they want, how do they use the community garden, [GreenThumb] will tell you ‘this is good for you’... [well] how would you know? Have you ever been in this area?<sup>40</sup>

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<sup>38</sup> Anonymous, personal communication, April 8, 2021.

<sup>39</sup> Anonymous, personal communication, April 11, 2021.

<sup>40</sup> Anonymous, personal communication, April 5, 2021.

In sum, gardens that had social networks of largely CS actors were observed to effectively nurture feelings of collective belonging and community building because of actors' shared understandings of community values, gardener struggles and a collective enjoyment for greenspace. Self-crafted rules and tailor-made goals and targets were developed collectively through bottom-up mechanisms which were observed to be well-respected and accepted by gardeners. This helped gardeners lead/organize their neighbors and encourage participation in community involvement opportunities because they were confident that they had the community's support and trust.

#### 4.4.2. Decentralized Governance Influence on Collective Empowerment

Formal rules within public covenant instruments and relationships with government actors (i.e., characteristics of decentralized governance, see Table 2) were observed to contribute to cultivating community involvement opportunities and aiding gardeners to take control of community organization via leadership competence, however they were not observed to directly contribute to the other components of collective empowerment (i.e., collective belonging and community building). While these governance characteristics were thus partially favorable for aiding collective empowerment, they also instigated acts of contestation (see section 4.2.2).

Government instruments, such as the Licensing Agreement, were observed to provide gardens with essential land, administrative, and financial resources. First, without land from the City, the majority of UCGs in this research would not be in existence today. Next, public covenant instruments (i.e., Licensing Agreement, bylaw templates) required by GreenThumb provided a solid foundation for gardeners to create their own self-crafted rules and bylaws. For example, the self-crafted bylaws for 138th St. Garden were a condensed version of GreenThumb's bylaw template; the BLT licensing Agreement largely resembled the GreenThumb Licensing Agreement; and the market bylaws at Bissel Gardens were based on NYS's Farmer's Market Nutrition Program criteria. As such, these institutional documents, which give structure and legitimacy to a garden group, and ultimately aid in their ability to organize opportunities for community involvement and lead their neighbors (i.e., control of community organization), drew inspiration and guidance from government instruments. Moreover, within these public covenants were formal rules about the minimum number of hours per week gardens are required to remain open for public usage. While some gardens exceeded this minimum requirement, the rule created a solid basis for which UCGs could structure and organize their participation opportunities (i.e., involvement in the community). Lastly, while there were characteristics of government containment by GreenThumb practices, there was also critical financial support from this government actor. In addition to free educational workshops and materials (e.g., compost, wood, etc.), gardens are not responsible for the structural repair of public sidewalks, retaining walls and exterior fencing at the garden, nor are they responsible for the cost of water accessed from hydrants or from on-site water installation (NYC Parks, 2019a; NYC Parks, 2019b). In comparison, SWS garden, operating on private land, is responsible for the costs associated with sidewalk, retaining walls, and fencing repairs, as well as

the cost of water and plumbing fees (Bronx Land Trust, n.d.b). Without these free services by GreenThumb, these incurred costs may limit the garden's ability to function and subsequently negatively affect collective empowerment by limiting community involvement opportunities. This suggests that formal rules and government instruments primarily influenced gardens' ability to lead and organize community involvement opportunities, and subsequently to take control of community organization. Once involvement opportunities were in place however, the other components of collective empowerment (collective belonging, community building) were facilitated by gardeners.

Having direct relationships with government actors was observed to be important to most gardeners as these agents helped mobilize additional resources to the causes of the gardens, settle single-issue disputes and share important socio-political information and resources (see section 4.3.3). While it may be assumed that these benefits of government relationships helped gardeners facilitate additional community involvement opportunities, the only evidence of this relationship directly influencing collective empowerment was by RRHVG. Through NYBG's transparency and Board participation efforts with elected officials, they were able to secure financial support which created additional community involvement opportunities (i.e., Tier 1 program). Moreover, while 138th St. Garden did express a (weak) relationship with their Outreach Coordinator, this relationship was not observed to contribute to fostering feelings of collective belonging, increasing community involvement opportunities, community building or taking control of community organization. Yet, it is important to recognize that through Outreach Coordinators, GreenThumb gardens do have a direct line of communication to this government agency which may help with future sociopolitical control issues, for example, by giving GreenThumb gardens an entry point to political negotiations.

These findings suggest that characteristics of decentralized governance did contribute to gardeners' ability to manifest some components of collective empowerment. Government support through land acquisition helped gardens provide a common greenspace in which diverse individuals could gather for emotional, physical and social support via community involvement opportunities; administrative guidance aided gardens in establishing clear governance procedures which helped gardens achieve legitimacy and contributed to gardens' leadership competence; and financial, educational, and material support relieved some budget pressure which allowed garden funds to be used for organizing community activities and maintaining a high quality environment. However, the containing characteristics associated with decentralized governance characteristics (i.e., top-down social interactions, uniform goals, and formal rules) led to acts of contestation (see 4.2.2.).



## Chapter 5: Discussion

What follows is a brief discussion about the main findings, followed by limitations of the research and suggested recommendations for future research.

### 5.1. Analysis

While some characteristics of decentralized MoG were found to support two components of collective empowerment (i.e., community involvement and community organization), they were also found to instigate the path towards collective empowerment via collective contestation. As seen in Figure 2, the first step towards empowerment is an existence of oppression (Hur, 2006). In several instances, evidence of containment mechanisms embedded in decentralized governance characteristics (e.g., top-down social interactions and restrictive formal regulatory rules) resulted in gardeners feeling powerless and experiencing social disturbance. In the short term, these containment mechanisms caused gardeners to (1) retaliate through acts of collective contestation and (2) use their social networking skills to seek support from other CS actors, subsequently strengthening social solidarity with non-government actors. For example, as gardeners began getting involved in their communities and participating in political acts of contestation (i.e., signing petitions, engaging in letter-writing campaigns, and refusing to sign the License Agreement), they became aware of democratic political processes, expanded their social networks, exercised their citizen/activist subjectivities (Barron, 2017), and helped raise awareness about socio-political discourses (e.g., social justice, environmental justice, collective political power). This process demonstrates gardeners seamlessly moving along the path towards empowerment (Figure 2) from feelings of oppression and powerlessness towards conscientization, mobilization, and maximization (Hur, 2006). When gardeners had the opportunity to get involved in these acts of contestation and demonstrate their collective agency alongside other CS actors that shared common interests, feelings of community building and collective belonging were fostered naturally via internalized feelings of trust, loyalty, and reciprocity. Finally, through collective pressure on the government to renegotiate the conditions of the Licensing Agreement and influence local policy (i.e., control of community organization), gardeners were able to create social change, and thus reach the last stage of the path towards empowerment (Figure 2). In sum, this research found that while characteristics of decentralized governance may impede gardeners in the short term via containment mechanisms, it does not diminish their potential for collective empowerment in the long term. This process supports findings by Laforge et al. (2016) that when collective resistance arises, and is expressed as contestation, these politicized grassroots responses increase government's willingness to accommodate or collaborate community priorities.

Moreover, this research demonstrated that to navigate unequal power dynamics, grassroots innovations largely mobilized resources (e.g., knowledge, capacity) with like-minded CS actors (i.e., strategic conceptualization of collective empowerment), developed social cohesion and self-organization skills with like-minded CS actors, and cultivated alternative subjectivities (i.e., non-

strategic conceptualizations of collective empowerment). Here, the non-strategic skills activated by grassroots actors ultimately strengthened their ability to mobilize strategic resources; the trust and loyalty that was fostered through participatory social learning between CS actors ultimately increased gardeners' capacity and knowledge. Mobilizing with non-state actors has not only been recognized as instrumental in bridging connections between civic and government groups because these actors act as "boundary crossing entities" (Connolly et al., 2014, p.193), but it has also been recognized as a way to enable new actors to come forward, create new coalitions and reframe issues, thus redistributing powers and interdependencies across state, market, and civil society actors (Driessen et al., 2012).

This finding brings value to grassroots innovations scholarship as it may help future grassroots groups shape their political and social strategies moving forward. Grassroots innovations should not overlook non-strategic conceptualizations of empowerment when planning their collective action strategies; dispositional attributes such as trust, loyalty, reciprocity, inclusivity, democracy, collaboration, social cohesion, self-organization, and alternative subjectivities are incredibly valuable conceptualizations of empowerment which may strengthen more strategic conceptualizations of empowerment. This demonstrates that it is both the strategic *and* non-strategic conceptualizations of empowerment which contribute to sustainability transitions (Raj et al., 2020).

Furthermore, this research demonstrated that the component of collective empowerment related to community involvement helps strengthen and facilitate the development of other components of collective empowerment (i.e., collective belonging, control of community organization and community building). It was observed that by getting involved in UCG's participatory activities gardeners were able to feel like their involvement brought value to, and was respected by, the garden group. Whether it be making collective decisions during planning processes or exchanging knowledge with peers during garden activities, these bottom-up social interactions contributed to facilitating feelings of collective belonging and community building via loyalty and reciprocity. These attributes – trust, loyalty, and reciprocity – helped gardeners effectively exercise control of community organization via leadership competence. When community involvement opportunities include public deliberation and inclusive decision-making, it is possible develop collective capabilities (Ibrahim, 2017) and collective agency (Pelenc et al., 2015). Taken together, this suggests that one strategy for grassroots innovations to strengthen collective empowerment is to ensure that community involvement opportunities, which foster democratic participation and social learning processes, are present in their day-to-day operations.

This understanding has practical political implications as well: if governments want to avoid political acts of contestation by civil society actors and appeal to their citizenry, they would benefit by re-assessing their community outreach strategies to ensure that bottom-up social mechanisms are in place. This is in line with findings from Seyfang & Smith (2007) that suggest future research

and policy is needed that nurtures mutually beneficial relationships between regime actors and grassroots innovations and which embeds social learning into the mainstream. By institutionalizing deliberative processes within government practices, civil society actors enhance their sense of communal ownership of social innovation processes (Ibrahim, 2017) and are thus less likely to engage in political acts of contestation because they have stronger senses of collective belonging, community involvement, and sociopolitical control of their locales.

Applying this understanding to NYC's urban political landscape, if NYC Parks want the GreenThumb agency to accomplish their mission to "strengthen their neighborhood by providing resources needed to steward these valuable [garden] spaces" (NYC Parks, 2019a) then they need to increase deliberative processes with gardeners. While the Outreach Coordinator role does present a solid attempt at facilitating democratic participation with gardeners and is a good first step towards participatory governance, it falls short of genuinely *collaborating* with gardeners. Promoting uniform-goals and top-down workshops, in addition to only interacting with gardeners once a year, were found to discourage collaboration between gardeners and government employees, increase collaboration between gardeners and non-state actors, and facilitate acts of contestation. Thus, GreenThumb would benefit from utilizing bottom-up social learning mechanisms during outreach efforts to allow gardeners to advocate their tailor-made goals and meaningfully contribute to decision-making processes. This would ultimately yield more successful solutions to garden-related issues since tailor-made goals reflect contextualized knowledge and therefore imply a better 'fit' of solutions (Seyfang & Smith, 2007).

Finally, it is critical to connect these findings back to the original discussion on food systems and how UCGs play a role in the transition towards more sustainable agro-food systems. Scholarship has shown that democracy-enhancing initiatives, such as increasing opportunities for public participation in decision-making, is an important part of a transformative food politics (Levkoe, 2011). Moreover, it has been recognized that "through collective action and the 'meaningful participation of individuals' that changes can be brought about in the food system" (Kalfagianni & Skordili, 2019, p. 13). This research has demonstrated the capacity for UCGs to foster the development of a democratic, socially engaged, inclusive, and empowered collective group of urbanites. It is important to remember that the GreenThumb agency arose due to an increase in collective action by civil society actors in the 1980s when New Yorkers were reclaiming abandoned lots into garden spaces (section 3.1). Since then, the GreenThumb agency has not only grown into the nation's largest urban gardening program, supporting over 550 gardens throughout NYC (NYC Parks, 2019a), but also community-based gardening schemes are now being officially recognized in NYC's sustainability plan, OneNYC 2050. This growth over the last 40 years highlights the incredible added value and influence UCGs have on institutional practices and social norms. Thus, UCGs offer critical entry points into the transition towards more sustainable food systems at the community level because of their ability to (1) engage citizens in more democratic processes (2) promote critical conscientization processes and encourage citizen subjectivities (3)

increase the availability of local food, especially in low-income communities (4) strengthen community development via cultivating feelings of trust, loyalty and reciprocity (5) promote alternative food practices and (6) create new social networks of engaged non-state actors. Taken together, these contributions facilitate social solidarity, democratic processes, and collective action towards more sustainable food systems.

## 5.2. Limitations & Future Research

This research took place during the COVID pandemic which may have affected the research in several ways. First, it was very difficult to contact UCGs to inquire about their interest in participating in this research due to temporary closure of gardens and limited capacity. As all garden-related activities moved online, or temporarily paused, there were fewer gardeners to contact which is likely to have limited the potential case study options (e.g., less people were able to respond to social media/email/phone call inquiries) and limited the number of interviewees available. Second, because *group* interactions were limited due to COVID restrictions, it was impossible to conduct group interviews of diverse garden participants, and it was difficult to observe natural gardener interactions. All semi-structured interviews were conducted with garden leaders instead of general garden members, which may have distorted the data because garden leaders may have different perspectives of collective empowerment components and different experiences with government actors than general members. Moreover, because interviews were limited to 1-2 people, and *group* participant observations were restricted, it was difficult to observe organic bottom-up social learning interactions. Data related to social learning processes were largely interpreted from interviews, which may have yielded a more superficial analysis. As such, future research would benefit from repeating this research when the pandemic is over and ‘regular’ social activity resumes. When gardens are fully open and community members are regularly meeting and participating in garden activities without limitations on group sizes, there will be more opportunity for richer data collection.

The analytical frameworks used in this research also presented challenges. The Driessen et al. (2012) framework proved to be limiting to adequately analyze UCGs governance structures. Since grassroots innovations are typically characterized by a pluralistic resource base (Seyfang & Smith, 2007), it was very difficult to limit the ‘initiating actor feature’ to one group of actors. For example, the RRHVG case is located on NYC public land (decentralized governance), funded by state, market, and civil society actors (interactive governance), and managed by professional employees who make up the primary source of expertise (self governance). As such, it was necessary to further divide the ‘initiating actor feature’ category to better reflect the types of resources which actors may provide a garden. Following van der Jagt et al. (2017), the ‘initiating actor feature’ was divided into three categories (i.e., land, funding, and expertise). Moreover, although Driessen et al. (2012) clearly acknowledged that the modes of governance typologies are archetypes and may not exist in their purest forms, these simple representations were unable to reflect the complex social arrangements of UCGs and resulted in hybrid governance typologies for all the case studies.

This made it difficult to adequately conduct a comparative case study and determine a more explicit relationship between MoG and collective empowerment. Future researchers should be aware that this framework may not match the reality of complex governance systems and therefore use it only as a guide for understanding the various typologies. This suggests that future research may want to consider repeating this research using frameworks by van der Jagt et al. (2016) and/or van der Steen et al. (2014), as suggested by van der Jagt et al. (2017), as these frameworks may better describe co-governance aspects between government and non-government actors. Moreover, future research could also consider improving the Driessen et al. (2012) framework by providing more nuanced elements for the analysis of MoG which reflect hybrid typologies.

The Laforge et al. (2016) framework was useful to explore the interactions between CS and government actors, however future research may consider expanding this framework to analyze the interactions between CS actors exclusively. In this research, while there were some examples of collaborations between government and gardeners, collaboration was highest between gardeners and other CS organizations; it was within CS networks where democratic discussions and participatory spaces were being created to co-create agendas and generate balanced partnerships. Hence, it would be interesting to investigate if the same type of interaction dynamics (i.e., collaboration, cooptation, containment, and contestation) are present between CS actors. This expanded typology would further one's understanding of how grassroots groups exercise agency during agro-food sustainability transitions. Questions to consider may include: (1) Do CS actors exercise modes of governmentality in the same way governments do? If so, how? (2) How do the interactions between CS and government compare to those exclusively between CS actors? (3) What implications does this have for further understanding the relationship between self-governance and collective empowerment?

Finally, while this research does consider the empowerment process as dynamic and constantly changing (Hur, 2006), future research may consider following the methodology by Roy (2010) which analyzed empowerment along a temporal continuum and included past, present and future dimensions. By examining the full temporal process of becoming empowered, in addition to considering past governance relations and future governance speculations and expectations, a richer understanding of the relationship between governance and empowerment may be revealed. Questions to consider may include: (1) How have gardens' MoG changed over time? (2) How was collective empowerment manifested under different MoG typologies during different time periods? (3) What implications does this have for the relationship between MoG and collective empowerment? (4) Which strategies are most *effective* to foster collective empowerment in UCGs under different MoG?

## Chapter 6: Conclusion

The purpose of this research was to investigate the relationship between collective empowerment and modes of governance. This research used an innovative approach to investigate collective empowerment by encompassing both strategic *and* non-strategic conceptualizations of empowerment which is often lacking in grassroots innovations in sustainability transitions literature (Raj et al., 2020). Using frameworks by Driessen et al. (2012), Laforge et al. (2016) and Hur (2006), and following a comparative case study research methodology, it was possible to reach the research objective and understand the relationship between governance and collective empowerment.

This research found that, while all case studies were characterized by hybrid MoG typologies, all cases proved to be effective sources for collective empowerment because they created spaces for people to gather around shared interests and values, participate in collective action towards shared goals, reflect on socio-political realities, and mobilize resources for the betterment of the garden, and the surrounding community more broadly. The dominant governance typologies across the UCGs in this research largely reflected characteristics of self and decentralized modes of governance, however characteristics of centralized, interactive, and public-private governance were also observed. Cases that demonstrated characteristics of decentralized governance were largely subject to mechanisms of containment which contributed to civil society responding through acts of contestation. While some evidence of collaboration between grassroots innovations and government was observed, these collaborations were largely weak as they often did not provide adequate opportunities for gardeners to be active participants in policy decision-making processes.

It was revealed that characteristics of self-governance (i.e., high degree of CS actor involvement, social learning mechanisms of social interaction, self-crafted rules, and tailor-made goals) were more favorable for collective empowerment than decentralized governance characteristics (i.e., government actors promote top-down interactions, uniform goals, and formal rules) as they contributed to all four components of collective empowerment (i.e., collective belonging, community involvement, community organization, and community building). Moreover, community involvement was demonstrated to be a key-driver for collective empowerment. This research concludes with practical implications by suggesting that future research and policy would benefit from improving government and grassroots innovations relationships by providing more democratic processes and embedding social learning mechanisms into institutional practices. Finally, this research acknowledges that although in the short-term government containment may cause feelings of powerlessness and social disturbance, in the long term, it may also lead to collective empowerment.

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## Appendix A: Semi-Structured Interview Questions

### **1. Tell me about yourself**

1. Name & Title
2. What is your role in this garden? What garden-related activities are you involved in?
  - a. Has this always been your role? Why the change in role?
3. How long have you been a member? Do you plan on staying a member in the future? Why?
4. Why did you first get involved with this garden? What motivated you to first become involved?
5. What have you learned about yourself since participating in this garden?
6. What have you learned about your community since participating in this garden?
7. Has your relationship to food changed at all since becoming involved in this garden?
  - a. What about your relationship with nature?
8. What have you gained, if anything, by joining this garden?

### **2. Tell me about the community garden**

1. What is the mission of this garden?
  - a. What are its goals/objectives? Who sets these goals and objectives?
2. Tell me about the history of this garden.
  - a. How did the design of the garden come to be?
  - b. Does this design ever change? Why?
    - i. If so, who makes that decision? Who does the physical changing?
3. How does this garden organize itself? (Board, Committees, paid employees, volunteers, etc.)
  - a. Who decided how the garden should be organized? How was this decision made?
  - b. What is the dynamic between these roles?
    - i. Who holds the most power?
    - ii. How do conflicts get resolved?
  - c. Who makes general decisions about garden activities? (what to grow, when to grow, event plans, workshops, volunteer days, etc.)
4. Tell me about the process of how new projects/initiatives are developed.
  - a. Who is invited into these decisions? (general public, garden members, partners, city officials?) What organizations are invited?
    - i. If all garden members are invited, how many people accept the invitation to participate/get involved? (more than half, half, less than half)
  - b. What are the biggest challenges about pursuing new projects/initiatives?
    - i. Are there restrictions on what projects are allowed? Restrictions by who?
    - ii. How do you overcome these challenges?
5. What events/activities does the garden organize?
  - a. Who does the “organizing”?
  - b. How do you learn how to be an effective “organizer”?
  - c. Any specific food-related events?
6. Does the garden have any unique traditions? If so, explain.
  - a. What organizations/people get involved in these traditions?

### **3. Tell me about garden membership**

1. How many members are in this garden?
  - a. What is the difference between a garden MEMBER and a garden PARTICIPANT?
2. What are the rules of membership? Expectations? Hourly requirements?
  - a. Who/what organizations set these rules?
  - b. How are these rules enforced?
  - c. How are new members recruited?
    - i. How does the garden make new members feel welcome?
3. Would you say members are loyal? What does loyalty look like in this garden?
  - a. Are members generally willing to stay late, volunteer extra, assist when needed?
  - b. Are most members exclusively members to this garden? Or are most members involved with, or members of, other gardens too?
4. How would you describe the relationships between members in this garden?
5. What do members have most in common? Biggest differences?
6. Demographic of (the majority of) members?
  - a. Age (below age 35, 35-50, 50+)
  - b. Race
  - c. Country of Origin

### **4. Tell me about the garden's resources**

1. What/who are the major sources of LAND?
2. What/who are the major sources of FUNDING?
3. What/who are the major sources of CAPACITY? (staff, volunteer, contractor, etc.)
4. What/who are the major sources of KNOWLEDGE?
5. What/who are the major sources of MATERIALS?
6. How are these sources secured? (Formal, informal agreements, interim reports)
7. What is done with the food that is grown in this garden?
8. Do you have an online presence? Why/why not?

### **5. Tell me about the community garden partnerships**

1. Tell me about...
  - a. any partnerships with other community groups, non-profits, schools, etc.
  - b. any partnerships with businesses.
  - c. any partnerships with the City.
    - i. Relationships with local officials?
2. In what way do you partner with them?
3. How would you describe the relationship between this partner? (refer to Rating Tool)
  - a. collaborative, coercive, competitive, independent, supportive
  - b. Is there ever tension between the garden's desire to do something and the rules imposed by other partners? If so, how is this tension resolved?
4. Rules of partnership? Formal/informal agreements?
5. Why *this* partner?
6. Are you satisfied with this partnership?
  - a. What opportunities are there for improvement in this relationship?



7. Has anything in the garden changed during/after being part of these partnerships? If so, what changed? Why?
8. How transparent is the garden with their partners? What does transparency look like?

#### **6. Tell me about the community impacts**

1. How many hours a month is this garden open to the public?
  - a. Who decided this?
2. What kinds of public participation opportunities are available for this garden?
  - a. How many garden members participate in these activities? (more than half, half, less than half)
3. How does the community garden benefit from public participation?
  - a. Are there any negative consequences to public participation? (expensive, time commitment, hard to find volunteers)
2. In what ways does the garden get involved in the community?
3. Have members of this community garden, or on behalf of the garden, participated in petitions/protests/letter writing campaigns to protect community gardens in the city?
  - a. From the Ground Up petition (2020)
  - b. Petition against 2019 Licensing Agreement
4. Are the needs/interests of this garden presented to Bronx officials? If so how?
  - a. Local community boards, land use committees, other City agencies

#### **7. In your opinion...**

1. What are the most important aspects of a community garden to you?
  - a. Do you see these aspects represented in your community garden? Which ones are missing and why?
2. What does a good partnership look like? What qualities does a good partner have?
3. Would you say your partnerships help/hurt the community garden? Explain.
4. How do your partnerships influence:
  - a. The garden's sense of community & community building?
  - b. The garden's identity?
  - c. The garden's members/membership?
  - d. The garden's leadership?
5. Does this community garden empower its members? How?
  - a. What does empowerment mean to you?
6. What aspect of this community garden are people most proud of/enjoy the most?
7. What issues matter most to people?
  - a. food security
  - b. green space
  - c. social connection/sense of community
  - d. Other
8. If you could RESTART/REDESIGN the organization of this garden, would you do things differently? Why? (partner with new orgs, change rules, etc.)
9. Where do you see this garden in the next 5-10 years? How will you get there? Whose help/permission do you need to achieve this goal?

## Appendix B: Time Schedule

Week	Date	Description
Week 1 -	November 30 -	Proposal Writing
Week 3	December 14	
	December 21	<b>HOLIDAY</b>
Week 4 -	December 28 -	Proposal Writing
Week 5	January 4	Proposal Due
Week 5 -	January 4 -	Literature Review
Week 6	January 11	
Week 7 -	January 18 -	Develop Conceptual & Analytical Frameworks
Week 8	January 25	Meeting with supervisor – Discuss frameworks, adjust as needed. Review findings from literature
Week 9	February 1	Develop Empowerment Operationalization Framework
Week 10 -	February 8 -	Identify NYC UCG which comport with case-study selection criteria
Week 11	February 15	
Week 12	February 22	Identify governance structures of these UCGs  Meeting with Supervisor - Discuss possible case studies & empowerment operationalization framework
Week 13 -	March 1 -	Select case studies; elaborate on governance structures
Week 14	March 8	develop interviews/surveys; set-up meetings with actors
Week 15 -	March 15	Interviews; participant observation; transcribe content; data input into NVIVO Meeting(s) with supervisor - Discuss collected data
	Apr 5	<b>HOLIDAY</b>
Week 20	Apr 26	...continued
Week 21 -	May 3 -	Data analysis with NVIVO
Week 24	May 24	Meeting with supervisor - discuss relevant codes used in analysis and organization of codes into empowerment and governance themes
Week 25 -	May 31 -	Evaluation & Discussion
Week 28	June 21	Meeting with supervisor - discuss common themes found in data that explore relationship between governance and empowerment of grassroots innovations
Week 29	June 28	Conclusions
Week 30	July 7	Thesis Presentation
Week 31	July 12	Final Submission (July 16, 2021)

## Appendix C: Mode of Governance Breakdown by Case Study Garden - 138th Street Garden

Mode of Governance Characteristics									
Actor Features			Institutional Features			Content Features			
Initiating Actor Expertise	Initiating Actor Funding/Materials/Capacity	Initiating Actor Land Ownership	Mechanisms of Social Interaction	Rules of Interaction	Goals & Targets	Instruments			
Centralized									
Decentralized	NYC GreenThumb (S)	NYC GreenThumb (S)		Formal rules (NYC GreenThumb Licensing Agreement, NYC/NYS COVID-19 Regulations)		Public covenant (NYC GreenThumb Licensing Agreement)			
Public-Private		NYC Parks & Rec (S)							
Interactive									
Self	<ul style="list-style-type: none"> <li>•138th St. Garden (CS)</li> <li>•Green Guerrillas (CS)</li> <li>•New York City Community Garden Coalition (CS)</li> </ul>	<ul style="list-style-type: none"> <li>•138th St. Garden (CS)</li> <li>•Green Guerrillas (CS)</li> </ul>	Bottom-Up: social learning with CS organizations, garden members, garden leaders & community members	<ul style="list-style-type: none"> <li>•Formal, self crafted rules (bylaws)</li> <li>•Informal rules</li> </ul>	Tailor made goals	Voluntary instruments (bylaws)			

138th Street Garden

**Appendix D: Mode of Governance Breakdown by Case Study Garden - Bissel Gardens**

Mode of Governance Characteristics							
	Actor Features			Institutional Features		Content Features	
	Initiating Actor Expertise	Initiating Actor Funding/Materials/Capacity	Initiating Actor Land Ownership	Mechanisms of Social Interaction	Rules of Interaction	Goals & Targets	Instruments
Centralized					Formal Rules (IRS prohibits political campaigning)		
Decentralized	NYC GreenThumb (S)	<ul style="list-style-type: none"> <li>•NYC Council (S)</li> <li>•NYC Dept. of Sanitation (S)</li> <li>•NYC Metro Transportation Authority (S)</li> <li>•NYC GreenThumb (S)</li> </ul>	NYC Dept. of Transportation (S)		Formal rules (NYS Farmer's Market Nutrition Program, NYC/NYS COVID-19 Regulations, NYC GreenThumb MOA)		Public covenant (NYC GreenThumb MOA, NYC DOT)
Public Private							Incentive based instruments (corporate grants)
Interactive						Tailor made and integrated goals (grants)	
Self	<ul style="list-style-type: none"> <li>•Bissel Gardens (CS)</li> <li>•Bronx Green Up (CS)</li> <li>•Green Guerrillas (CS)</li> <li>•Bronx Green Machine (CS)</li> <li>•Bronx Community Farm Hub (CS)</li> </ul>	<ul style="list-style-type: none"> <li>•Bronx Green Up (CS)</li> <li>•Bissel Gardens (CS)</li> <li>•Million Tree Project (CS)</li> <li>•Just Food (CS)</li> <li>•Small Axe Peppers LLC (CS)</li> <li>•NY Cares (CS)</li> <li>•SYEP Youth Group (CS)</li> <li>•Trinity Farms (CS)</li> </ul>		Bottom-Up: social learning with CS organizations, garden members, garden leaders & community members	<ul style="list-style-type: none"> <li>•Formal, self crafted rules (bylaws)</li> <li>•Informal rules</li> </ul>	Tailor made goals	Voluntary instruments (bylaws)

**Bissel Gardens**  
[501c3]

## Appendix E: Mode of Governance Breakdown by Case Study Garden - SWS Garden

Mode of Governance Characteristics							
	Actor Features		Institutional Features		Content Features		
	Initiating Actor Expertise	Initiating Actor Funding/Materials/Capacity	Initiating Actor Land Ownership	Mechanisms of Social Interaction	Rules of Interaction	Goals & Targets	Instruments
Centralized					Formal Rules (IRS prohibits political campaigning)		
Decentralized	NYC GreenThumb (S)				Formal Rules (NYC/NYS COVID-19 Regulations, NYC GreenThumb MOA)		Public covenant (MOA with NYC GreenThumb)
Public Private							Incentive based instruments (corporate grants)
Interactive						Tailor made and integrated goals (grants)	
Self	<ul style="list-style-type: none"> <li>•SWS Garden (CS)</li> <li>•Bronx Land Trust (CS)</li> <li>•Green Guerrillas (CS)</li> <li>•New York City Community Garden Coalition (CS)</li> </ul>	<ul style="list-style-type: none"> <li>•Bronx Land Trust (CS)</li> <li>•SWS Garden (CS)</li> <li>•Citizens Committee (CS)</li> <li>•Green Guerrillas (CS)</li> <li>•Con Edison (M)</li> <li>•NY Restoration Project (CS)</li> </ul>	Bronx Land Trust (CS)	Bottom-Up: social learning with CS organizations, garden members, garden leaders & community members	<ul style="list-style-type: none"> <li>•Self crafted rules (bylaws)</li> <li>•Informal rules</li> </ul>	Tailor made goals	Voluntary instruments (bylaws)

Sun, Wind,  
Shade Oasis  
[Bronx Land  
Trust, 501c3]

## Appendix F: Mode of Governance Breakdown by Case Study Garden - RRHVG

Mode of Governance Characteristics							
	Actor Features		Institutional Features		Content Features		
	Initiating Actor Expertise	Initiating Actor Funding/Materials/Capacity	Initiating Actor Land Ownership	Mechanisms of Social Interaction	Rules of Interaction	Goals & Targets	Instruments
Centralized					Formal Rules (IRS prohibits political campaigns)		
Decentralized			NYC (not specified) (S)		Formal Rules (NYC/NYS COVID-19 Regulations, NYS Department of Environmental Protection (NYSDEP), NYC Department of Environmental Conservation (NYCDEC), NYC DOT)		Public covenants (NYC Dept. of Cultural Affairs, NYC Council)
Public Private							Incentive based instruments (corporate grants)
Interactive	<ul style="list-style-type: none"> <li>•NYC Council (S)</li> <li>•NYC Dept. of Cultural Affairs (S)</li> <li>•NYS Senate (S)</li> <li>•MLS (Federal) (S)</li> <li>•Whole Foods Market (M)</li> <li>•KitchenAid (M)</li> <li>•Blue Apron (M)</li> <li>•Chobani Foundation (M)</li> <li>•Green Mountain Energy Sun Club (M)</li> <li>•MeLife Foundation (M)</li> <li>•Newman's Own Foundation (M)</li> <li>•Target Corp. (M)</li> </ul>	<ul style="list-style-type: none"> <li>•Sabra Dipping Company (M)</li> <li>•Simply Organic (M)</li> <li>•Cleveland H. Dodge Foundation (CS)</li> <li>•NY Botanical Garden (CS)</li> <li>•Lillian Goldman Charitable Trust &amp; Amy P. Goldman Foundation (CS)</li> <li>•The Goergen Foundation (CS)</li> <li>•Stavros Niarchos Foundation (CS)</li> <li>•Wallace Genetic Foundation (CS)</li> <li>•Eric P. &amp; Evelyn E. Newman Foundation (CS)</li> <li>•Phyllis and Howard Schwartz Philanthropic Fund (CS)</li> </ul>				Tailor made and integrated goals (grants, events/programming)	Negotiated agreements (corporate in-kind donations)
Self	<ul style="list-style-type: none"> <li>•Edible Academy (CS)</li> <li>•NY Botanical Garden (CS)</li> <li>•Bronx Green Up (CS)</li> <li>•Bronx Community Farm Hub (CS)</li> </ul>			Bottom-Up: social learning with CS organizations, staff and community volunteers	Formal, self crafted rules (employee & volunteer protocols)	Tailor made goals	Private contracts (employee contracts)