Seeds of change

Exploring the potentials of a “commoning education” through the social organisation of pedagogical gardens

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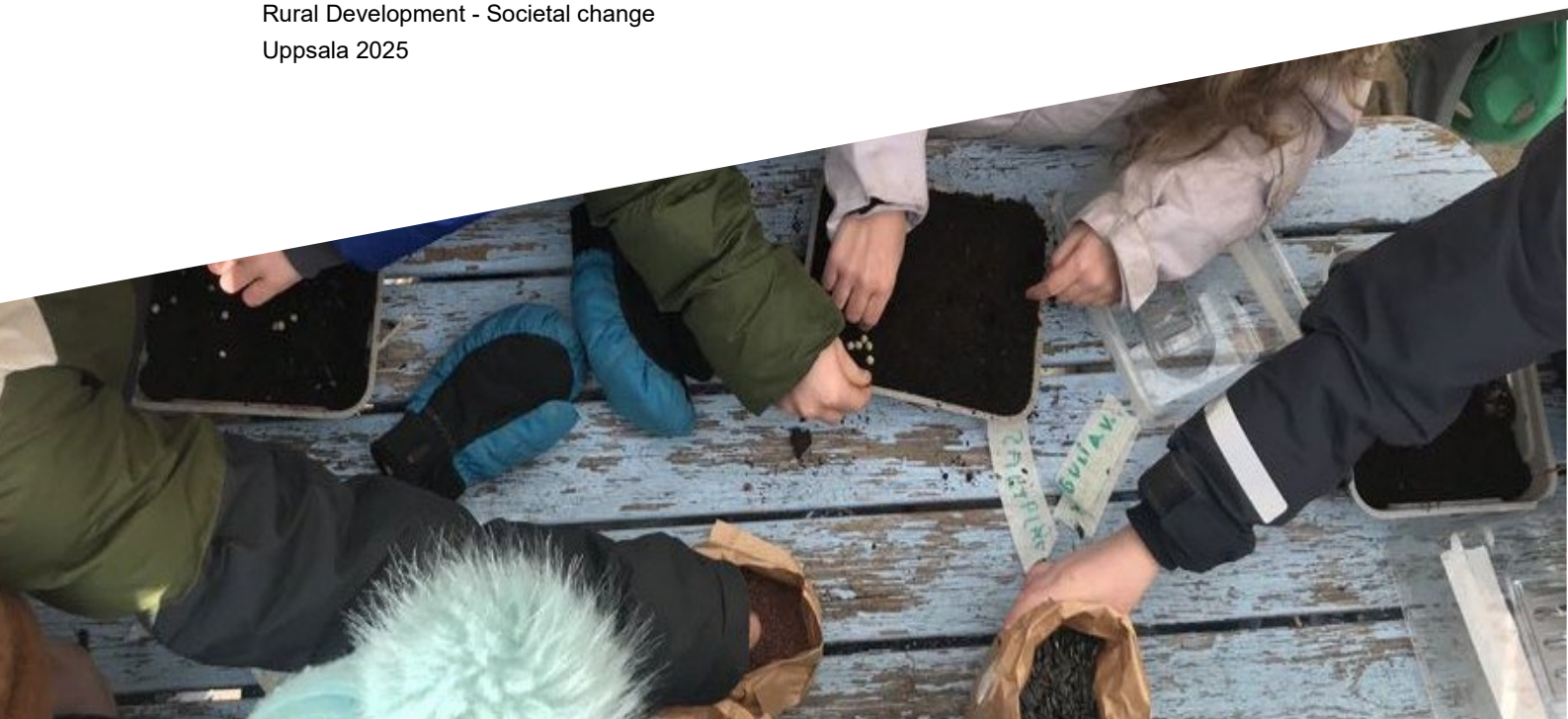

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Abstract

This thesis brings together perspectives from commoning literature, a critique of neoliberal capitalism, and alternative education exemplified through pedagogical gardens. It assumes the starting position that neoliberal capitalism is destructive to our common planet, through processes of expropriating and accumulating resources for limited social use in devastatingly unsustainable ways. Formal education is implicated in the reproduction of neoliberal capitalism. However, previous research highlights how commons and commoning can serve as alternative modes of production, in part because of their collective organisation of resources and work. This thesis combines these different theoretical strands into a qualitative exploration of how pedagogical gardens, through offering commoning experiences, can challenge this reproduction of neoliberal capitalism. In other words, it aims to study the potential of a "commoning education". Based on interviews and participant observation, this study finds that pedagogical gardens have the potential to challenge neoliberal capitalism through: i) inclusive and collective work opportunities, ii) need-based collective distribution, iii) which both serve to foster relationships and build connections. However, pedagogical gardens, like commons, create patterns of inclusion and exclusion, which demand ongoing attention.

Keywords: school gardens, pedagogical gardens, commons, commoning, education, neoliberalism, capitalism

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1. Introduction: The raspberry fence

There is a cold wind blowing through the budding trees and bushes this April afternoon somewhere in the middle parts of Sweden, yet the sun feels warm as it hits my face. Charlotte is showing me their pedagogical garden at the research centre. Yellowed grass, hand-painted signs, left-over crops, compost and manure all find their place in this vast open space. “Well-organised chaos,” I think to myself. “A bit like Pippi Longstocking,” she tells me, hinting at the messy but welcoming state of things. With over a decade of experience, Charlotte harbours many stories of different encounters in their garden: pre-schoolers, SFI[1]-students, farming veterans and pupils of different ages have all weeded, watered, tilled or harvested these grounds. But one story in particular catches my attention, as it relates to my research interest in the possible subversive potential of pedagogical gardens. She starts, “I overheard this little boy and his father last year...” bringing me over to an old-looking fence that I had not noticed yet. I take a closer look. Behind the fence is a vast disarray of old barren raspberry stalks, not yet awake. The fence is made up out of a motley of planks and sticks of different shapes and sizes. Charlotte explains how they let the visiting kids, as young as three, bring branches and sticks they find on their walks in the nearby forest and nail them to the fence. And this is what the young boy in her story had done. Charlotte speaks again, softening her voice imitating that of a child, and points to one of the sticks. “Daddy, we're here. This is the one I made”.

Figure 1. Photo of a fence in a pedagogical garden. By the author.

[1] Swedish for immigrants.

1.1 Research problem: Sustainable distribution and division

The story above, documented during one of my field visits, serves as an entry point for thinking about the work of collectively caring, sharing and protecting a common resource. It raises questions of distribution, of who is included and who is excluded: who can partake in the future harvest of raspberries. It also captures a relationship between individual and collective work: how the young boy's work is simultaneously individual (i.e. his nailing of the stick to the fence) and collective (i.e. making up part of the fence that works to protect the raspberries).

Our current economic system neoliberal capitalism usually works in radically different ways, through enclosing, accumulating, unequally distributing and eventually spoiling what *used to be* common resources (Hickel 2020, Hornborg 2021). There is ample critique concerning how this global system, which privileges individual over collective gains, is wreaking havoc on our planet's ecology, especially in relation to rural places (ibid). In line with this reasoning, Capitalocene is suggested as an alternative to Anthropocene to better accentuate how it is our current mode of production that is degrading and destroying life on earth and not primarily the human as such (Haraway 2015). Importantly, we can organise social production and reproduction differently.

The practice of commoning, where people are caring for and sharing resources together, is proposed as one way of organising human lives more sustainably (see Federici 2018, Fournier 2013, Bollier & Helfrich 2015, De Angelis & Harvie 2014). The term commoning, proposed by Peter Linebaugh (2008), works to shift our attention from the material or immaterial resources, and instead focus on how we organise them together. This entails both the governance of existing commons, and the processes of creating new ones. Commoning has been a widespread practice both historically and geographically, but has been (and is) under massive pressure from capitalist systems (Linebaugh 2008, Federici 2018, Caffentzis & Federici 2014). The privatisation of commons is understood as a precondition of capitalist expansion (Marx called it "the systematic theft of communal property"), and their organisation is proposed as an antithesis to capitalism (in Foster et al. 2015:8). Caffentzis and Federici (2014:95) call it "the embryonic form of an alternative mode of production". Arguably, modes of productions are institutionally reproduced, through laws, economic organisation, but also through education. I am therefore interested in investigating how commoning might be encountered, learned and socially reproduced.

1.2 Proposition: Pedagogical gardens as modern commons

To approach institutional education of alternative modes of production, I propose that we investigate pedagogical gardens using the theoretical framework of commoning. I use the term pedagogical gardens here to encompass practices and places that engage with farming and gardening from a pedagogical perspective, usually in the form of school gardens. Like commons, pedagogical gardens entail the social organisation of work and resources. This thesis will apply the theoretical concept of commoning as it relates to this social organisation of existing gardens as commons, and not to the production or creation of new ones.

Previous research on pedagogical gardens highlights their subversive potentials in challenging neoliberal capitalism (see Cairns 2018, Bisceglia et al. 2020, Moore et al. 2015). The values created in these gardens, which include collective responsibility, mutual success and shared decision making (ibid), can also be recognised as features and effects of commoning. Yet, there seems to be few attempts to bring commoning literature and research on pedagogical gardens into conversation with each other. This thesis is an attempt to do that.

However, pedagogical gardens' transformative potential cannot be taken at face value. Commons are not in and of themselves outside a capitalist logic (Caffentzis & Federici 2014). Similarly, much of the previous scholarship on pedagogical gardens discusses the ambiguous relationship with neoliberal capitalist logic. Pedagogical gardens are either said to uphold neoliberal logics (Pudup 2006), transform them (Bisceglia et. al. 2020), or both (Moore et al. 2015, Conroy-Hayes 2010). Therefore, pedagogical gardens must be approached with a critical perspective.

1.3 Aim and research question

The aim of this thesis is to critically explore the social organisation of pedagogical gardens, in order to develop a deeper understanding for their potential and limitations in challenging the hegemonic position of neoliberal capitalist logic. And furthermore, to think about what opportunities these gardens can offer for experiencing *commoning* ways of organising social production and reproduction.

The thesis is guided by the overarching research question:

How can pedagogical gardens, through offering opportunities for experiencing and participating in commoning, challenge the reproduction of neoliberal capitalist logic within formal education?

2. Theoretical orientations and central concepts

In this section, I briefly recount the history of the commons and their enclosures[2], contextualising both their functions, organisation and the struggles fought over them. I then introduce commoning as a central concept, and contrast with critique of neoliberal capitalism. I finally turn to research on pedagogical gardens in order to discuss their commoning potentials and limitations.

2.1 A history of common use: from communal resources to private property

Learning about the origins of capitalism through the commons and their enclosures shows how there was nothing "natural" about the transition away from commoning as a widespread practice. Rather than being a part of a benevolent evolution from old user rights, the enclosing processes were (and still are) carried out with more or less extreme forms of violence and coercion (De Angelis & Harvie 2014, Federici 2014, Linebaugh 2008). Federici (2014) sees the story of the enclosures as a shared heritage of injustice but importantly also of resistance, that needs to be told again and again so that we can think and act otherwise. She states: "this historical memory is crucial if we are to find an alternative to capitalism" (Federici 2014:10). Similarly, this thesis rests on the conviction that in order to grasp the political potentials of commons today, we must first begin to understand their political past.

Commons have played a crucial role for rural societies as it offered rural inhabitants both material and social buffer mechanisms that were especially important for marginalised people. Commons provided for material needs, protected peasants against bad harvests and diversified what different goods people had access to (Federici 2014, Foster et. al. 2021). Through the commons access to land and resources was also extended to a larger segment of the population, as even the landless poor had some access to the commons through tenuous contracts or customary rights (ibid).

The commons also played a big part in social life. They were also usually the site for social gatherings, games and other festivities, and worked relationally to foster "social cohesion and cooperation" among the rural inhabitants (Federici 2014:24). The commons were managed through joint processes of "self-government and self-

[2] Here I focus on the English commons and the subsequent enclosures, both because they mark one of the earliest occurrences and also because they are extensively documented (Federici 2004, Foster et al. 2021).

reliance", and most of the decision-making was done together in peasant assemblies (Federici 2014:70-71). In the commons, the local inhabitants had a common goal that was the social reproduction of the community, and in order to reach that goal they had to act as a community, where rights were managed and distributed amongst them (Foster et. al. 2021:3). Through these organisational processes, commons also served as an arena for social mobilisation and resistance.

The enclosure of the commons is presented by Marx as one of many assaults on rural people's means of subsistence, which then enabled accumulation and exploitation of land and people (in Foster at all. 2021). The English enclosure processes, which started in the 16th century, were met with vigorous resistance and there were many peasants' revolts that were violently defeated (Foster et al. 2021, De Angelis & Harvie 2014, Federici 2014). The enclosures and privatisations lead to rising economic inequalities, food prices rose dramatically, and real wages plummeted, and this resulted in local division and separation, turning peasants against each other and in large the social cohesion and cooperation of previous times fell apart (Federici 2014).

To summarise, the enclosure processes, which are ongoing today, dispossessed the vast majority of the rural people of communal resources and subsequent collective work, and transformed these into private property and more or less coerced labour (De Angelis & Harvie 2014, Federici 2014). The historical perspective also accentuates how the organisation of the commons also encouraged democratic processes, social mobilisation and resistance (Foster et al. 2021).

2.2 Processes of commoning

The commons are part practice and part idea, proposes Peter Linebaugh (2008, 2019). The idea, or maybe ideal, is that everyone should have somewhat equal economic access to resources, and this idea then informs practices of social organisation through collective work and communal distribution. Commons are primarily this organisation, Linebaugh (2008) continues, privileging the term commoning over commons. Commoning usually demand some degree of knowledge or experience of both the resources being organised and organising, in itself (Fournier 2013). Commoning can also be consciousness building argues Bollier & Helfrich (2015:3), and can lead to "thinking, learning and acting as a commoner". Through these social processes then relationships are constituted between both different commoners, and with nature and its inhabitants. Bollier and Helfrich also make a valuable contribution concerning the relationship between collectives and individuals within commoning, which is worth quoting at length:

> A thriving individuality is not only essential to successful commoning … it is a condition for 'being commonable' or capable of participating in a common. Conversely,

> commoning contributes to strengthening and stabilizing the individual self; it nurtures identity and long-term commitments … it is not only possible to align strong individuality with strong commons; the two are necessary for each other. They generate and enhance each other. (Bollier & Helfrich 2015:2.)

Commoning then enables relations, and it is through these relations to others that individuals are fostered. Interestingly, collective and individual identities are not conceptualised as mutually exclusive but as interrelated.

What commoning does for this thesis is that it centres, and becomes a tool for understanding, the social organisation of these gardens and how they might challenge neoliberal capitalist logic. In doing so, I will not explore the actual creation of new commons, but focus on how existing ones are organised.

2.3 Neoliberal capitalism and the commons

Capitalism can be thought of as an economic practice and philosophy that orders, justifies and enforces certain social and material distributions and divisions (Hickel 2020, Federici 2014). The core feature is a relentless accumulation of resources (labour, raw material, technology etc) that are then unequally distributed along classist, racist, and, or sexist lines (Hickel 2020). Neoliberalism then accelerates these processes through deregulations and weakened state influence. Harvey (2005:19) proposes to view neoliberalism as "a political project to re-establish the conditions for capitalist accumulation and to restore the power of economic elites". With neoliberalism's focus on individualism, many collective efforts of distributing and dividing work and resources more equally has been undermined, for example trade unions and state-funded welfare (Harvey 2005).

Commons can also become resources for capitalist appropriation. Commons produce material goods, but also social goods, that capitalism often wishes to profit from (Fournier 2013, Caffentzis & Federici 2014). There is also the risk of them enforcing neoliberal tendencies. In research on pedagogical gardens as part of alternative food programmes, the features from neoliberalism that are highlighted as problematic are individualism, private funding and ownership, and dependence on volunteerism (see Bisceglia et al. 2020, Moore et al. 2015). This is why we should put emphasis on the collective processes, the actual doing of commoning, rather than the resources (Linebaugh 2008, Fournier 2013).

2.4 Pedagogical gardens as commons and previous research

Historically, pedagogical gardens have been organised similar to commons. In a Swedish context, these gardens date back to the early 19th century where they filled

both material and educational needs (Åkerblom 2004). They originally consisted of a smaller piece of land adjacent to the teacher's residence, primarily for the teacher's subsistence needs, while also being an educational resource. This eventually changed to prescribing a larger area for school gardens, with the potential to provision for a larger community (ibid). However, Åkerblom (2004:235) also emphasises that though the purpose of these gardens were primarily material, they were also based on the intention of "bringing them [the pupils] up to be hardworking, orderly and watchful". Around the turn of the 19th century, there were also connections with nationalism and love for the nation state. These ulterior motives of pedagogical gardens are similar to Pudup's (2006:1228) critique of how "organized garden projects", have a history of control and coercion. She explains how garden projects (of which pedagogical gardens are one example) have through history served diverse purposes, among them militaristic, spiritual, and nutritional. Although Pudup (2006) in turn has been criticised for simplifying these gardens and not actually investigating the subjects' perspectives (Hayes-Conroy 2010), her critique is important to bear in mind, and is indeed central to this thesis. From this perspective it becomes necessary to think about the limits in thinking pedagogical gardens as commons, and instead rather argue for them having the potential to entail commoning processes and practices.

2.5 Operationalising my research question

This thesis explores how pedagogical gardens, through different processes of commoning, can challenge neoliberal capitalist logic. As discussed above, commoning logic and neoliberal logic are radically different and they inform and shape social division and distribution in different ways. I therefore study how work, resources and decision-making is organised in these gardens, and then discuss in which ways the social organisation of these aspects can be thought to challenge or reproduce neoliberal capitalist logics.

3. Research design and methodology

In this section, I detail which qualitative methods I have used to generate my research data, the methodological questions as to how and why, and finally, how I approach the analysis and ethical considerations.

3.1 My research field

Pedagogical gardens and their people consolidate part of my research field. I align with Raymond Madden (2010) who uses the term "ethnographic field" to capture how research is being done in a partly conceptual field generated by the researcher. In his understanding, research aims and enquiries create "interrogative frames" that direct our attention and guide our analytical reflections as we experience and interact with a social and material world (Madden 2010:8). The research field of this study then does not exist independently of my construction of it. My interrogative frame is informed by my three-year experience as a part-time pedagogical gardener, as well as a pilot study that I conducted in the fall of 2024. The gardens and people included in this thesis have been chosen through subjective sampling (Harboe 2013), where I have contacted informants through different social media channels. Pedagogical gardens in Sweden are diverse, in design as well as in use, and there are no set of rules governing them apart from the general national curriculum and safety regulations. This thesis makes no claim of being representative of this diversity, rather the research done offers glimpses into some of these gardens and the people tending to them. Qualitative research does not generalise empirical matter, but theoretical connections and understandings (Dannefjord 1999), therefore the value of this study is in the conceptual connections made between commoning as a political concept and alternative education exemplified and examined through these pedagogical gardens.

In this thesis, I approach pedagogical gardens exploratively as a social phenomenon (Harboe 2013, Kvale & Brinkmann 2009). I seek the perspectives and experiences of both gardeners and teachers, as well as trying to observe the actual practices and processes that pupils encounter. This has led me to a mixed methods approach, where I use both interviews and participant observations.

3.2 Interviews

I have interviewed seven practitioners working with six different pedagogical gardens located in: four private schools, one public school and one open garden at a research centre. My informants' experiences working with pedagogical gardens range from one to over ten years. Out of these seven informants, five are educated

teachers and two work or worked primarily as gardeners or pedagogical gardeners. I conducted three interviews in person, and five interviews online (two persons were interviewed twice and one interview included two persons). Out of these interviews all but three were recorded, with permission, and then transcribed. The reason for some interviews not being recorded was due to technical difficulties as they were conducted over the phone. In these cases, I took extensive notes during the interview, which I expanded on directly afterwards. For a more detailed chart of the interviewees see appendix 1.

The interviews were organised as semi-structured interviews (Kvale & Brinkmann 2009). I had loosely written questions that I organised according to themes. I reworked my questions in between interviews and the themes grew partly from my informants' responses. As the purpose of this study was to approach pedagogical gardens as modern commons, which often highlights social organisation, I was especially interested to learn about the organisation of work, resources, and influence in these gardens. My informants cannot talk for the pupils' experiences but they can give insights into what opportunities these gardens provide. I was also interested in whether my informants had changed or adapted their teachings during the course of their work, and if so in which ways. Alteration or moderation in their strategies and pedagogies might signify adaptation to an experienced reality, both pupils' actions and agency, and the materiality of the gardens themselves.

An interesting tension that Kvale and Brinkmann (2009) bring up concerning interviews, is how to combine an open and unbiased approach with a well-researched comprehension of the subject matter. They propose using mindful or deliberate naivety (ibid). This approach has been partly suitable for this study. My entry point approaching my informants has been that I share their profession, so the naivety has been less practiced in relation to an overall understanding of pedagogical gardens and more so in the specific understanding of the informants' gardens and experiences.

3.3 Participant observations

I have also used participant observation during my own garden lessons, in order to study what pupils actually do. Participant observation provides a way of seeing and experiencing in context through embodiment (Madden 2010), and this method enriches the interview material. Importantly, the observations and interviews inform each other. Sometimes responses during interviews directed my gaze in later observations, and at other times, experiences from observations prompted specific questions to ask during interviews. Furthermore, interviewing other practitioners (often senior to me) about their experiences have influenced my role as a pedagogical gardener and subsequently my role in these participant observations.

The observational data is gathered from five lessons, in total ten hours, with pupils from ages 8 to 10. However, this method comes with some methodological challenges. First of all, my dual role as teacher and researcher was a significant challenge. During some parts of these lessons, I had to be more of a participant and sometimes I was able to assume more of an observational role, but it was a circular movement between these positions (Rabinow in Davies 2008). I was able to document some observations in more detail, while missing others, but in general it was hard for me to do deeper observations as I could not abdicate responsibility for these lessons. It was furthermore hard for me to evaluate my own influence on different situations, and I would conclude that there is some risk of selective perception (Harboe 2013). I tried to mediate these risks by writing extensive notes directly after the lessons where I reflected on my actions, perceptive abilities and role. However, in the end, I made the decision to primarily base my analysis on the interviews, and rather use these participant observations sparingly and for background understanding.

3.4 Analytical strategy

The collection of empirical material (both interviews and observations) and the analysis have been done interchangeably throughout this study, making it elaborative (Harboe 2013). After the initial interviews, I re-listened to them and then transcribed them. Recording and transcribing is not without its problems and Kvale and Brinkmann (2009) propose to think of this as a two-part abstraction where the living interview is reduced and transformed from verbal to written language. For this reason, I transcribed in close connection with the actual interviews, and I did verbatim transcriptions. I then highlighted frequently occurring themes related to my topic of commoning processes and practices and colour-coded these. I then transferred them into an excel sheet where I grouped material related to the distribution and division of i) work, ii) resources, iii) decision-making and influence. This study then included another level of translation as I brought the interview transcripts included in this thesis from Swedish to English. In this process, I drew on previous academic studies in English and I also frequently consulted a dictionary. Still some words and concepts are hard to move between languages.

3.5 Ethical considerations

All research starts with negotiating access (Madden 2010), and how that negotiation is done and the consequences of which are targets for ethical considerations. My starting point regarding ethics is that no one should risk being hurt or affected negatively as a result of participating in research (Kvale & Brinkmann 2009, Madden 2010). Cresswell (2014) reminds us that the ethical perspective enters the

research process already at the proposal stage, and the efforts to minimise harm has been a priority throughout this study. Kvale and Brinkmann (2009) argue that general rules are necessary, but needs contextualising and should not be mechanically applied. I have chosen to discuss some ethical concerns with my supervisor and some with student peers.

Furthermore, this thesis includes working with minors, which are considered a vulnerable group, and warrants additional considerations. I first applied and received the principal's consent for this study. I then informed the selected minors of the study, and their option of being included in it. Their guardians also received written information about the study, where they had to sign a letter of consent (see appendix 2). All but one pupil's guardians did this and this pupil was subsequently excluded from documented observations. I judge that my study has not significantly affected the experiences of the pupils participating. I have been working with this group of pupils for half a year before the study began and we would have had these lessons regardless of the study. Therefore, the general impact of this study on the pupils can be considered to be rather limited, consisting mainly of their teacher (me) taking a few notes during or after class. The adult participants that were interviewed have also signed a letter of consent. Furthermore, all participants as well as schools and institutions in this study have been anonymised, which they were informed of beforehand.

4. Result and analysis: Commoning processes within pedagogical gardens

In this section, I present the result and analysis of my study. We begin with the social organisation of work, moving on to the distribution of resources, and finally how decision-making and influence is navigated.

4.1 Working in the garden

The concept of work is highly prevalent in pedagogical gardens, and both teachers and pupils often refer to the tasks they are doing as work.

Garden work is often framed as "real work" by my informants, who highlight its material and physical aspects, and this "real work" is perceived to have beneficial effects on the pupils. Charlotte emphatically declares: "it is always our goal, you know, that they [the pupils] will get to work for real, doing real things." Real work is also extended through real tools; for example, at the research centre they have kid-size shovels and rakes of solid wood and metal for pre-schoolers. Charlotte explains how she lets the older pupils use for example secateurs, as a way to encourage responsibility and convey trust. In those cases, she usually stresses the gravity of the tool. "This tool is dangerous, but I expect you to handle it," she says with a feign serious tone in her voice. Real tools in this way signals real trust and importance. Björn also notes how the school garden becomes a place to reciprocate trust, but also responsibility, and he notes that the garden is a place where he can extend responsibility to students that are not given that in other situations in school. Lovisa ponders that many pupils, especially the younger ones, seem to enjoy exerting themselves physically, "really doing something", as in one example where a group of pre-schoolers collectively pulls a heavy bag of leaves over the school yard. In these different ways, pupils are experiencing the garden through work, and work becomes embodied through especially touch and movement.

These experiences also connect with motivation. According to my informants, work in the garden should ideally be engaging. Some of them emphasise voluntariness, but not all. They all agree that it is important to build enthusiasm together with the pupils. My informants also talk about how the tasks and work might have to be adapted for different age groups. Older pupils might be more engaged in making decorative and beautiful bouquets, or more demanding physical labour. While for younger pupils it might be more about experiencing the garden and playing, digging, creating homes and dwelling places for the animals living in the garden. Lovisa stresses that work in the garden should never feel like a punishment, and that she aims for it to be fun. She exemplifies that they might rake all the leaves

into this big pile that they can later jump in, making it a game or at least play-like. Björn provides another example where four adolescent boys spend their consecutive breaks over some days shovelling manure, preparing for and constructing the garden's hotbeds. This points to an interesting tension where pupils and students will engage in voluntary work and privilege this over recess and play-time. This also happened during my observations, where pupils would occasionally stay in the garden after the lesson had finished to continue with their work.

Garden work is above all about collective work. Based on my material, I like to emphasise two different kinds of collective work processes that happen in pedagogical gardens. First, there is the *collaborative* collective work process where pupils collaborate on a common task. Emil reflects on the pupils' work in these collaborative processes:

> It's so dynamic! Many pupils can find their individual strengths and collaborate towards something bigger that is not individualistic. Instead it's about us, us helping each other to try. For example, it's such a moving experience to watch pupils remove the pot from a plant in collaboration with someone else. (Emil, teacher)

Emil goes on to describe how the pupils both need to be mindful of their own hand-movements, the plant's materiality and the person they are collaborating with, adjusting their grip and the speed of the process, giving and taking directions as they go along. Emil again:

> They notice you know. 'I have to put the stem here [shows me between his fingers] and hold it like this so the soil won't…'Okay, so you take the pot and now you hold it there, and now we wait.' The collaboration is just very very good. (Emil, teacher)

Through collaborative work the students need to extend their awareness beyond their own body to include that of both their peers and in the example above, the plant, the pot and the soil, encouraging mindful and attentive collective work.

The gardens also provide opportunities for another sort of collective work, what I would call *associative* work: doing different work but towards a common goal. This is an important aspect that most of my informants put forward: that their gardens allow for working together while working apart, doing different things but still within a garden collective. Stina contrasts how garden work is more inclusive than other types of group work in school:

> They [the students] can mess up an entire group if they haven't read the book, or if they're just not interested. While here [in the school garden] it is easier, you know, you can take the role you're comfortable with in one way or another. If you just want to hold a pot and watch while the others plant, you can, or if you just want to dig holes you can do that. (Stina, teacher)

Here Stina points to how work in the garden both gives pupils and students more options in choosing different tasks, but also how this opens up possibilities for successful collaborations. When being left the option to just "hold a pot and watch while others plant" pupils are not excluded from participation despite participating on different terms and in different ways.

Björn describes this as the pedagogical garden offering a social buffer:

> So, in a way, it's a forgiving place, and you have a common goal … If you want to sit down on the side and watch while your friends dig, you can, you can chat with your friends, and all the while the young girls are riding around on their hobby-horses, and there is someone in a corner reading a book. So, you know, nature, garden, gardening, it's forgiving. It becomes a buffer sort of, yes! And it's not weird that people do different things. There are benches, those are made for sitting, there are narrow aisles, those are for hobby-horses. You know, everyone can see that those raised beds are made for keeping horses (smiling slightly). And there's dung to be moved, and when that happens you better get out of the way, so you don't get a shovel in your head. These are, you know, really simple rules. No one can come and have an opinion about, say, 'that's a penalty, or a free kick, or a corner.' A pitch fork is a pitch fork, if you know what I mean. (Björn, teacher)

Björn's description of the garden illustrates how many different kinds of tasks, or work, can co-exist. The pedagogical garden in this way becomes a sort of taskscape (see. Bhatti et al. 2008), where different tasks become available for different students offering inclusive alternatives as you can be active and participate without doing the same thing. It also becomes a place where play (hobby horses) mixes with work (shovelling dung). While working on a common goal or a common ground, there is also the potential of being affected by the work of others; the work of the person shovelling manure or holding a pot matter to more than just that person as that work is part of making the garden in common.

Pedagogical gardens can also serve to make visible the work of the natural world and its inhabitants (see Besky & Blanchette 2019). Pupils are prompted in different ways to become aware of the work that animals, insects, plants and fungi perform in the garden, and through this awareness forge relationships. Karin recounts one such occasion:

> For example, there's this old tree stump with a lot of fungi and mushrooms, and then someone goes 'we should clear all the mushrooms!' 'But no, they're really good', and then you explain the collaboration with mycorrhiza and so on, and they go like 'Ahh so they help each other, how cool', … and that if there weren't any decomposers the forest would be full of dead animals. 'So just imagine how fast they work, and how many they have to be, and how many different kinds. (Karin, teacher)

Karin's example here points to how the garden allows for pupils to be made aware of the "extended collective work" performed by non-humans. The intricate work

organisation of a network of decomposers in nature materialises as orange mushrooms in their garden, forging these different places and activities.

In turn, this attention can foster a reciprocity where pupils (sometimes on their own initiatives) build dwelling places, hotels, and watering stations for these critters. During the lessons, Karin, who has a background within permaculture, often describes and details what tasks different animals, plants, and fungi perform in the garden and explains how they are beneficial to humans and how we are connected. Karin, again, talking about this work as part of acquainting the pupils with other species and the effects of getting to know each other:

> Now, when we've made an insect hotel, they can go 'There's a little bug! Does it live in our hotel?' and when they're digging in the ground, they'll say 'Look, there's worms here, and that's good because they're our friends' so you get more respect for nature this way. (Karin, teacher)

This exemplifies the mutuality of collective work: appreciating the work of others' and engaging in working for others. The pupils are positive of the worms in part because of the narrative of worms helping out in the garden, working to create and maintain healthy soil. They also spend their own work in building a hotel for some of the other insects. However, other animals, like slugs, might be less welcomed. During one of my lessons, one assignment was to move slugs from the garden, and this exclusion warranted discussions on ethical behaviour and how we relate to these animals. While some pupils curiously poked and prodded the animals, other were thinking of more or less violent ways to get rid of them.

Many of my informants hope that the experiences in the garden might inspire relationships of reciprocity and mutual care. Björn, for example, hopes that working in the garden as a young child will inform pupils' decision-making later in life:

> I think of this as a long-term project. The kids I'm educating now, in a few years, they will be the young adults out on the town when you and me are asleep, and maybe they can act as a sort of conscious then, like 'we can do this and this, but we're not touching the carrots because they're important to the kids at school. You know, the respect for living things and others' work. (Björn, teacher)

Björn makes a connection between one's efforts in work, and respect and responsibility. He hopes that working in the garden will foster a collective responsibility towards common resources and collective work that will stay with the pupils as they grow. Björn also states that the pupils that are the most prone to cause damage in the garden are the pre-schoolers because they have not sown and worked the garden. Therefore, one of Björn's top priorities is to get these pupils "to put their hands in the soil … to plant a seed", so that they can start a relationship with the garden. This is also echoed by Emil and Stina who also have worked hard

over the last year-and-a-half to include as many different classes as possible in working the garden. They state that their garden is subject to almost no damage and destruction, despite it being part of a big school with really well-used surfaces and areas. They also credit the garden's relation-building capacities for this, both between human and human, human and non-human, and between individual and collective work. Laughingly they tell me that they just have to find a way to keep the deer out.

Based on my material, pupils are encouraged to do three things in relation to garden work: to experience work, to take notice of the work of others and ideally to become appreciative of the work of others.

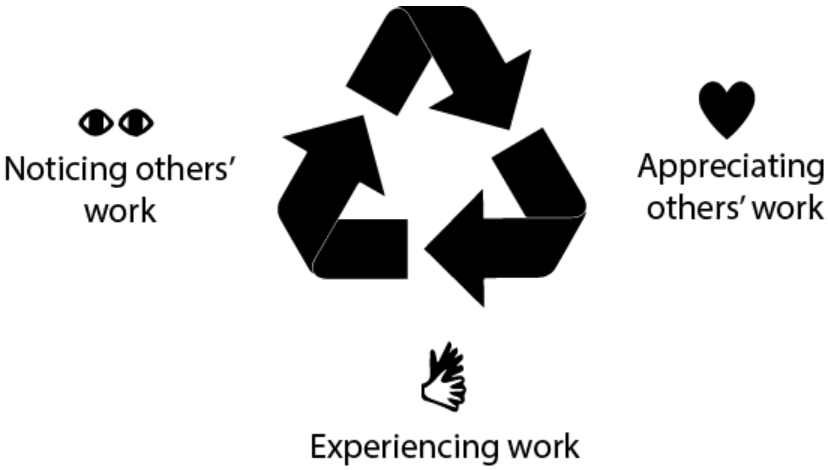

Figure 2. Illustration of work-relations in the garden. Design by Victor Bortas Rydberg, based on the idea of the author, Sofia Nordstrand.

In this way, work in the gardens often entails forging relationships with both people, places and its critters. You experience your own work with your body, you can also become aware of the work of others, and hopefully that makes you appreciative of that work. Work becomes connected, both to the places and processes where it takes places, and to the ones performing work, a sort of reconnection or de-alienation process if you will.

4.2 Garden resources

These collective work efforts also enable the creation of resources (both material and immaterial) which can then be distributed within or between different groups. All gardens in this study include some sort of communal usages or consumption of the resources the gardens produce, but the size of the group engaging in the activity varies. Some schools cook in their individual grade-based classes, some during home education, while others distribute the harvest through the school kitchen where it reaches the entire school. In this way, the garden becomes something with

the potential to matter to more than those that are most active in tending to it, and when served, especially through the school kitchen everyone is invited to start a relationship with the garden through eating its crops. Consuming the garden goods here also becomes a shared experience of providing for each other.

Many of my informants find ways to integrate the produce from the garden into other subjects at the school, and they believe that pupils build relationships with the produce and with nature through this start-to-finish process. Emil talks about how this becomes a way for the pupils to have a deeper and more connected experience with the material, through first growing, then harvesting and preparing, and finally utilising the resources from the garden. He thinks that treating resources like this nurtures engagement and caring for nature, animals and their environment. He recalls how some pupils when they are passing the garden beds where they are growing flax to make linen yarn often ask: "how is our flax doing?" The pupils' engagement denotes an extended care for the plants that they will later utilise. The time and work it takes for resources to take form also become an experience for the pupils.

Different goods from the garden are often distributed differently. At Björn's school asparagus is coveted but a bit sparse and usually distributed through the salad buffet, while Jerusalem artichokes grow in such quantities that they are usually packaged for pupils and staff to bring home with them. Mattias's garden produced so much produce, as part of a large-scale project, that the pupils could bring almost limitless amounts home with them. He laughingly tells me that he would tell the pupils: "You know, just fill your bag, absolutely, no problem", when the pupils asked to take vegetables home with them. When bringing crops home, this becomes a way for pupils (even young children) to take part in the social production and reproduction of their respective families.

The distribution of garden resources usually involves some form of social organisation. Charlotte tells me of a strategy they use at the research centre. They engage the pupils in a need-based discussion through asking for example: "how many potatoes do we need for our lunch?" This both guides the pupils to consider and discuss their group's collective need, but Charlotte also expands these considerations to include future groups visiting the centre that might also want to harvest. The pupils get to think and reflect about how to only take and cook what they actually will finish. They are also encouraged to think about how the amount they harvest affects how much other pupils can harvest in the future. During my own lesson, the pupils also engaged in need-based discussions of whether family size would matter when distributing harvest. The pupils discussed among themselves how many they were in each respective family, including parents and siblings. Some also made an estimation about the appetite of varying family

members. This discussion later served as the logic for how to distribute the harvest. Dividing goods this way through these discussions both raises sustainable awareness about food waste but also camaraderie and solidarity, to become aware of the needs of others and use this information in distributing resources collectively.

A recurring theme that several of my informants bring up is that it is not necessarily the actual material crops produced in the garden that are the greatest goods produced, but the immaterial goods, for example knowledge, experience and self-confidence. "Maybe the failure of no carrots, given the right leadership, is more valuable than the actual carrots" Charlotte muses. In other words, there is a pedagogical purpose, an immaterial harvest if you will, in "the failure of no carrots". The bad harvest can lead to reflection and accentuate under which circumstances food is produced. This opinion is also supported by Björn who argues for the importance of not secretly maintaining the garden in the pupils' absence:

> When the students haven't been in the garden for weeks it should look abandoned … because then we can discuss what went wrong, what you should have done, what you can do differently next time". (Björn, teacher)

By letting the garden grow (or not) according to the efforts put in, pupils are able to get a sense of the connections between garden resources and work.

On a similar note, Mattias brings up one part of their garden project that failed when they tried to establish a perennial garden with pupils, guardians and the local community. Materially, the endeavour failed, in that there is no perennial garden today, but he still considers the project partly a success, because of the learning opportunity and experience gained: "We were a lot of people on those workdays … they were really good workdays actually. Really good". When asked to elaborate, he highlighted the participation above all, that there were many people engaged in working, talking, and bonding together. People were also asked to contribute with perennials, which many did, and in that way the garden became something that they built together, each bringing their piece of herb or whatnot. The experience of working together in that sense also became a common resource to share.

4.3 Decision-making and influence in the garden

How work and resources are disturbed within pedagogical gardens is inevitably based on different social processes and becomes subject of decision-making. There are many different relations of power and influence in pedagogical gardens: i) the influence between different teachers and staff, ii) between teachers and pupils, iii) between pupils iv) and with guardians and other actors outside the immediate garden.

Although many pedagogical gardens are located on either private or public property this formal ownership is less important than informal ownership. Decision-making power is instead often legitimised through work and engagement in the garden: through doing gardening. Karin recounts how they have an organising group that staff can join and that they organise influence according to engagement:

> Right now, it [influence over the garden] is given to those that are the most interested, but no one is excluded, you know. It's not "first come, first served". Everyone who wants to do something should get the space to do so. (Karin, teacher)

We can see here how Karin articulates an aim of creating an inclusive space, yet how this construction is done is mostly reserved for the people who want to and can engage the most.

Many of my informants see themselves as somewhat reluctant leaders of their respective garden. They try to work as "the spider in the web" Emil puts it, making sure there is material, planning, and doing much of the decision-making. Lovisa tells me how she thinks of herself as a caretaker, as much of the garden was established when she started working there a year ago, but that she tries to include more people. When people ask her for permission to do something, she responds that "it's not my garden, it's ours, and we care for it together". She says she would prefer to be a benevolent "garden gnome" supporting both the garden and the teachers working in it in less obvious ways. Björn also describes how he tries to delegate responsibility, but how people end-up asking him for permission to use the garden. He is still "the go-to person", but he would prefer not to be. "I want people to be able to take their own initiatives, and do things that they believe in, but they often come to me first", he tells me. While Björn has worked for many years in the garden, and this legitimises his influence over it, Lovisa's entitlement to garden-decision making seems to be more dependent on her title as (paid) gardener as she has only been employed for a year.

One of the limitations in pedagogical gardens working as commons is in terms of influence and voluntariness. Pupils are usually only offered limited decision-making power, and participation can be more or less voluntary. Therefore, if we compare this situation to adult life in terms of influence and freedom, the influence might appear very limited. However, I argue that we have to think of this in relative terms, in comparison with general influence and freedom in terms of school activities, and then the picture changes. Instead, several informants point to how the lessons in the school garden give them other possibilities in adapting education in relation to students' enthusiasm, both during lessons and also in more long-term planning. Stina contrasts garden planning with other subjects:

> I teach other subjects as well, Swedish for example, and then you have to be more strict. If you're supposed to write a novel, then you have to write a novel, you know. So, in the garden, I really try to embrace their [the pupils'] ideas. (Stina, teacher)

We can talk of this in terms of indirect influence. Pupils' ideas and enthusiasm is allowed to inform and steer planning more than in other subjects, making the relative amount of freedom higher in comparison with other school subjects. It appears that the pupils might enjoy more influence in the garden.

Another way my informants try to extend ownership in the garden is through providing organised work, through creating this taskscape that is described in the previous section where pupils are free to engage in different types of work and activities. Charlotte tells me of how they work to make themselves redundant, by organising work stations, preparing, and enabling the pupils to work rather independently. "This is where you want to get, you know, where you don't play such a big part" she says. She continues by stating how this empowers the pupils, so that they can work more on their own terms when she has prepared different activities beforehand. Björn also points out the need for creating possibilities for learning while also recognising pupils' competence: "Kids are pretty smart. You show them what to do once, and then they do it". Pupils might then be able to attain a certain, informal, ownership justified through work, but they need help accessing this work.

However, sometimes an absent gardener (or teacher) also changes dynamics and structures of influence. An interesting thing occurred when Björn one semester was too busy and did not have the time to work in the garden. He exemplifies how when he had to resign responsibility because of other duties, others stepped in, especially a group of adolescent pupils. The students had been taught how to start the garden's hotbed one year, and the next year they did much of the work out of their own initiative and independently of his guidance. Björn says: "There was an urge you know" for the garden to return this season, which had led the students to engage. This urge was built through years of dedicated work, in showing what the garden could be, with Björn mostly in charge of organising the garden and its tasks.

Provisioning for this taskscape puts high demand on organising and structuring pedagogical gardens. One of the most interesting points is perhaps the ambivalent possibility of pedagogical gardens as both a source of freedom and independence, while at the same time having the possibilities of subjection as seen in the previous literature. As discussed in the section above, work can be a way for pupils to enjoy more freedom than in classical classroom settings. However, this freedom is often achieved through a carefully scheduled and planned session where pedagogues have organised enough tasks suitable for the place, time and number of participants. The idea seems to be that through submitting to the scheduled lessons and structured

work of the pedagogical gardens, pupils will gain more freedom and become more independent in the long-term, as demonstrated with the pupils organising the construction of hotbeds by themselves. Perhaps then this taskscape only comes into being with sufficient experience, motivation and imagination. Stina reflects that pupils often want to be participating:

> It's important that they feel that they are participating … If you just run around, well, most pupils aren't completely satisfied with that, even if you might think that they are. Most of them still want to participate. So, it's important to find ways for them to contribute to the work. (Stina, teacher)

And one of the preconditions for participating is that the pedagogical gardeners have prepared tasks. Here, Stina indicate that "running around" might be a consequence of not having anything meaningful to do rather than simply wanting to run around.

Finally, the influence in pedagogical gardens can also extend to participants outside of the school. Karin recounts how the garden becomes a way to include and engage guardians. They had struggled with attendance for parental-meetings but when they made an invitation to a meeting in the garden, almost all parents in the class showed up. In Björn's case it is the absence of guardian opinions that becomes valuable knowledge in terms of garden influence. He jokingly tells me:

> If I were to give my class a marzipan cake tomorrow, I would have at least one angry guardian calling me up asking me why it wasn't strawberry. It's a little like that you know, guardians always keep the right to criticise the school … Everyone has their own idea of the perfect school. But if there is one thing that I have never ever received any complaints about, that everyone agrees that 'this is good, this is a good way forward'. It's gardening. No one has ever questioned why we teach the kids this kind of stuff, why we think this is important knowledge. Everyone agrees, 'this Is important knowledge' and it's something that you don't get anywhere else today, because there's not the older generation to learn from, we've lost that. We have lost like two generations, you know. But then, to be part of bringing it all back, that feels really good. (Björn, teacher)

Björn describes how, through his long experience inside the Swedish school system, he is used to getting criticised by opinionated parents, but how the garden at his school breaks with this tradition and stands out as something that people can gather behind and agree on.

5. Concluding discussion: Potentials, limitations and revisiting the fence

I now turn to answering my research question of how pedagogical gardens, through offering opportunities to experience and participate in commoning, can challenge the reproduction of a neoliberal capitalist logic within formal education. I also highlight some important limitations to bear in mind.

5.1 Why and how to challenge neoliberal capitalism within formal education?

This thesis brings together perspectives from commoning literature and a critique of neoliberal capitalism, with alternative education in the form of pedagogical gardens. In this thesis, I have assumed the starting position that neoliberal capitalism is destructive to our common planet, through processes of expropriating and accumulating resources for limited social use in devastatingly unsustainable ways (Hickel 2020, Hornborg 2021). I further contended that formal education is implicated in this reproduction of neoliberal capitalism (Moore et al. 2015, Bisceglia et al. 2020, Hayes-Conroy 2010). Previous research highlights how commons and commoning can serve as alternatives, in part because of their social organisation of resources and work (Federici 2014, Federici 2018, Fournier 2013, Bollier & Helfrich 2015, De Angelis & Harvie 2014). This thesis combines these different strands into an investigation of how pedagogical gardens, through offering commoning experiences, can challenge this reproduction of neoliberal capitalism: the potentials of, what I call, a "commoning education".

In order to answer this question, I have highlighted two features of neoliberal capitalism: i) individualised or atomistic work where tasks, practices and their effects are cut of (at least conceptually) from other relations, privileging individual work and achievements, and ii) private property, which usually restricts access to resources based on certain logics, promoting unequal distribution and accumulation. My empirical material consists of semi-structured interviews with seven practitioners of different pedagogical gardens, and 10 hours of participant observation in one garden. I have focused on the social organisation of work, resources and decision-making in these gardens.

5.2 Potentials: the relational garden

In the pedagogical gardens I have studied, work and resource distribution enable relationships. Work in these pedagogical gardens are mostly done collectively,

either *collaboratively*, where pupils work together with a common task, or *associatively*, where pupils work separately but towards a common goal. Through either working collaboratively or associatively pupils are given the opportunity to form relations to the work of others. This work of others is made visible for the pupils, either through witnessing the actual working process or its results in the garden, for example as fences, handcrafted signs, growing crops etc. You might say that the work of others materialises in the garden, and this supports relation-building through work.

The organisation of work as either collaboratively or associatively makes participation easier some informants note, and opens up new possibilities for inclusion and acceptance. There is less competition as each pupil's work contributes to common goals, either directly through a common task, or more indirectly through a common goal. In school where grades and achievements usually are individualised, which tandems with neoliberal capitalist logic, this offers alternatives. There seems to be a difference in the efforts exerted out in the garden and those in the classroom according my informants that break from the ordinary social organisation of school work. Some of my informants recount how pupils who usually do not get along can co-exist, even collaborate, and how the garden becomes a "social buffer". Like Federici's (2014) assertion that commons foster social cooperation and cohesion, the pedagogical gardens seem to provide similar positive opportunities.

The connections made in the garden are also extended to include the more-than human world. Pupils are invited to forge inter-species relationships and alliances through work, for example between children and worms or insects. The relationship building enabled through work also encourages reciprocity. Rather than just appropriating maximum resources from the garden, pupils are encouraged to respect the work of others and reciprocate in different ways. Pupils are engaged in the care for these critters through building dwelling places (hotels), studying them, and protecting them. As one informant attest to, the garden critters are no longer aliens (and alienated) to the pupils, but become creatures we share land, resources and work with. In research, commons and commoning has this theme in common with school gardens, attempting to make possible the creation of "other-than-capitalist subjectivities" and of "being in common" with other humans and more-than-humans (Singh 2017:751,754). Nightingale (2018) argues for commons and their relations being inevitably socionatural (i.e. the processes and relations that make up life on earth, which we usually subsume under the labels of 'social' and 'ecological', are intertwined and do not pre-exist each other). This aspect is seen in my material and makes the garden truly relational.

Sharing resources and distributing them amongst a collective also provides opportunities for relationship-building. Some gardens distribute resources over the entire school, and then even pupils who has not engaged in work are able to connect with the garden through its produce. Many informants also involve pupils in discussions of distribution, and these often becomes centred on different needs. The needs of others are then made visible to the pupils and can serve as a basis for organising distribution of resources. Through engaging pupils in discussion on communal distribution, pupils are encouraged to think need-based (about their own and that of others) which might curb individualistic appropriation.

While pedagogical gardens do not dispute private property, they do seem to offer other experiences of ownership and resource entitlement. As we saw in the historical chapter, there are other ways to organise ownership and access to resources than through laws of private property. In other words, these pedagogical gardens can simultaneously be part of private property and also be governed by other rules and regulations. Decision-making and influence in the garden is instead distributed according to engagement and work, and this includes both adults and children. However, commoning requires knowledge of the commons (Fournier 2013). In my material we can see this when one informant after years of building both knowledge and experience (creating relations) steps down for a period. The adolescent students know what to do because of their previous experiences and are able to resume a decision-making position.

Pedagogical gardens might then have the potential of establishing a more-than-human relational common ground. Through working collectively, sharing gains and goods in the garden and navigating influence and decision-making, there are good reasons to believe that pedagogical gardens can strengthen cohesion and cooperation within social groups. As hinted at in one informant's positive feedback experience, the garden and the knowledge it enables might be something that many people can support. In a world of division, separation and polarisation, pedagogical gardens might then be something to believe in together (regardless of whether one actively practises it or not).

5.3 Limitations: exclusions and the two-sided fence

Hayes-Conroy (2010) reminds us that everyday life is messy and that pedagogical gardens can offer both possibilities and limitations in challenging neoliberal capitalism. One of the limitations of pedagogical gardens is in terms of inclusivity. If we revisit the story of the raspberry fence, the fence reminds us to look closer into patterns of inclusion and exclusion in these gardens. Notably, a fence looks and acts differently depending on which side you are on. Nightingale (2018:25) considers the creation of inclusion and exclusion an inevitable part of commons,

that “local commoning efforts by necessity create an ‘outside’”. She further argues that these features of commons should not be glossed over but attended to.

My material indicates that the social organisation of pedagogical gardens creates different social groupings and patterns of exclusion and inclusion within these gardens both in relation to resource distribution and participation. Equity and justice in division and distribution were primarily thought of as within the class or sometimes the school as whole. Student participation was also to a large extent dependent on the teacher’s work organisation. The sample in this study consists of one communal school, and the rest were private ones. Many schools in Sweden do not have access to pedagogical gardens, and as stated in previous research, these gardens, as do my samples illustrate, often depends at least partly on voluntary resources (especially time, knowledge and experience), which creates conditions for which pupils are included and excluded from this kind of education. The open garden at the research centre is interesting as it welcomes many different groups, but even here there are boundaries. The visiting school has to pay to be able to attend and need to solve matters of transportation. These exclusions also relate to the more-than-humans. While worms and some insects are included in the garden’s sociality, slugs are usually not and are instead excluded in more or less violent ways.

Commons are shaped or emerge, Nightingale (2018) writes, from the exercise of power which means that they are always contingent, and constantly being renegotiated and reconfigured. In relation to pedagogical gardens, this means to attend to the patterns of exclusion and inclusion and be mindful of its effects. These gardens seemingly have the potentials of strengthening social cohesion and cooperation, but they also run the risk of excluding and creating outsides.

One aspect that previous research on pedagogical gardens highlight is how they might run the risk of reinforcing neoliberal capitalist logic by centring the individual and over-emphasising individual agency in social change (Pudup 2006). Here, the fence also provides and apt metaphor, because the raspberry fence points to an interesting tension between neoliberal capitalism and commoning: how to think the individual. Bollier and Helfrich (2015) argue that there is no contradiction, that commons are both about groups and individuals, that you need to be an individual to be part of a group governing a common and that these categories are not mutually exclusive. In the example from the introduction, the young boy can simultaneously identify his individual stick, while it is evident that that very same stick also makes up the larger collective fence. Yet, these gardens show a strong dependency on individuals i.e., my informants. These people provide vital structure and engagement, and even though many of them try to lodge these functions in the structure of the school or larger educational system, we are not there yet.

5.4 The common(s) future

This thesis has attempted to establish connections and relations between commoning literature, a critique of neoliberal capitalism, and alternative education exemplified by pedagogical gardens, in order to explore and reimagine common futures and more sustainable ways forward. Thinking and approaching pedagogical gardens through the concept of commoning serves to highlight the role these gardens might play in terms of challenging the destructive logic and patterns of neoliberal capitalism and teaching us to act more sustainably together. As pointed out by Moore et al. (2015), pedagogical gardens are no panacea against all ills in the world, but the contention of this thesis is that they might help alleviate some of them.

The focus of this thesis has been the social organisation of existing pedagogical gardens, however, as mentioned in the introduction, commoning frameworks also involve the reproduction and creation of new commons. In a sense the pedagogical gardens in this thesis could also serve as examples of the production of new commons, because at one point or another, engaged people organised together and set out to create a common garden. The social organisation of those processes would be well worth exploring as well and could also give valuable insights into how we organise social production and reproduction more just and sustainably.

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Appendix 1: Interview participants

Informant(s) (not real names)	**Occasions**	**Mode**	**Way of documentation**	**Occupation, pedagogical garden experience**
Mattias	1	in person	recorded and transcribed	gardener, 3+ years
Karin	2	in person, digital	handwritten notes, recorded and transcribed	teacher, 3+ years
Charlotte	2	in person, digital	handwritten notes, recorded and transcribed	teacher, 10+ years
Björn	1	digital	recorded and transcribed	teacher, 10+ years
Lovisa	1	digital	handwritten notes	gardener, 1+ years
Stina & Emil	1	digital	recorded and transcribed	teachers, 1+ years

Appendix 2: Guardian consent and information (participating minor)

Till vårdnadshavare i årskurs _____,

Jag heter Sofia Nordstrand och ska göra ett examensarbete om skolträdgårdar på Sveriges lantbruksuniversitet (SLU). Syftet med uppsatsen är att fördjupa förståelsen för elevers arbete i skolträdgården, kopplat till handlingsförmåga och handlingsutrymme. Jag har odlat med elever på skolan i olika konstellationer sedan hösten 2022. Nu skulle jag vilja, via observationer och samtal i skolträdgården, använda detta som data till min uppsats. Detta kommer att innebära att jag ibland antecknar några ord, men i övrigt kommer lektionerna fortsätta som vanligt och eleverna kommer inte påverkas.

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