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María José Zapata Campos

School of Business, Economics and Law, Department of Business Administration & Gothenburg Research Institute, University of Gothenburg, Sweden

Patrik Zapata

School of Public Administration, University of Gothenburg, Sweden

Isabel Ordoñez

Design & Human Factors, Product and Production Development, Chalmers University of Technology, Sweden

Abstract

Citizen-led repair initiatives that collectively create urban commons, questioning the configuration of production, consumption, and discarding within neoliberal capitalism, have emerged in recent years. This paper builds on recent discussions of the openness of the commons by examining the role of repair in commoning. It is informed by the case of the Bike Kitchen in Göteborg, using in-depth interviews as well as ethnographic and visual observations to support the analysis. Through repair practices, commoning communities can reinvent, appropriate, and create urban commons by transforming private resources – bicycles – creating common, liminal, and porous spaces between state and market. This openness of the commons allows commoners to shift roles unproblematically, alternating between the commons, state, and market. We argue that commoners' fluid identities become the vehicle by which urban commoning practices expands beyond the commons space. This fluidity and openness also fuels the broad recruitment of participants driven by diverse and entangled rationales. Beyond the porosity of spatial arrangements, we illustrate how the dramaturgic representation of space, through simultaneous frontstaging and backstaging practices, also prevents its enclosure and allows the creation of openings through which urban commoning practices are accessed by newcomers. Finally, we call into question strict definitions of 'commoner' and the commoning/repair movement as limited to those who are politically engaged in opposing the enclosure of the commons. Rather, commoners

Corresponding author:

María José Zapata Campos, School of Business, Economics and Law, Department of Business Administration & Gothenburg Research Institute, University of Gothenburg, GU, P.O. Box 610, 40530 Göteborg, Sweden.

Email: mj.zapata@gri.gu.se

become political through action, so intentionality is less relevant to prompting social change than is suggested in the literature.

Keywords

Commons, repair movement, frontstaging and backstaging practices, politics of repair, Bike Kitchen

Introduction

In reaction to our consume-and-discard society, the destruction of the global environmental commons (Jeffrey et al., 2012), austerity politics (Bialski et al., 2015; Peck, 2014), and the resulting enclosure of public services and public spaces (Eizenberg, 2012b; Harvey, 2006), grass-roots initiatives are emerging in cities around the world, seeking less and more careful consumption. These new practices include food networks (Levkoe and Wakefield, 2013), urban farming (Dobernig and Stagl, 2015), sharing initiatives (Hult and Bradley, 2017), time banking (Laamanen et al., 2015), community gardening (Eizenberg, 2012a), and repair cafés (Rosner, 2014) – to mention but a few. These diverse initiatives have also been addressed in the literature, described variously as lifestyle (Haenfler et al., 2012), low-budget (Bialski et al., 2015), voluntary simplicity (Alexander and Ussher, 2012), anti-consumption (Portwood-Stacer, 2012), transition town (Grossmann and Creamer, 2016), do-it-yourself (Bradley, 2015), repair (Graziano and Trogal, 2019), and commoner (Stavrvides, 2014) movements.

All these movements, through their everyday practices, counterattack the commoditization of the urban fabric by collectively creating urban commons (Harvey, 2012) – for example, by transforming parking lots into parks (Bradley, 2015), abandoned bikes into repair ‘projects’ (Bradley, 2018; Carlsson and Manning, 2010), and discarded food into food rescue parties (Zapata Campos and Zapata, 2017).

In transformations to create urban commons, not only must the dominant meanings and rationales be challenged and reframed, but material transformations also must be set in place. Repair cafés, makerspaces, FabLabs, and ‘Bike Kitchens’ arise as citizen-led initiatives (Smith et al., 2017) engaged in maintenance and repair practices, questioning the configuration of production, consumption, and discarding within neoliberal capitalism (Chertkovskaya and Loacker, 2016).

These commoning communities (Gibson-Graham et al., 2016) create spaces that, contrary to Ostrom’s original ideas (1990), are not isolated but instead characterized by their openness and porosity (Hardt and Negri, 2009), permitting not only more open access to the commons but also flow between the commons, market, and state. In other words, the urban commons is not only an alternative to the market and the state; they also create passages promoting the overspilling of the commons beyond the boundaries of the commons community (Stavrvides, 2014) and of different types of property (Gibson-Graham et al., 2016). This openness also refers to the commoners themselves, as commons communities can be extremely heterogeneous (Haenfler et al., 2012), assembling actors traditionally considered oppositional in ‘multi-species’ communities (Gibson-Graham et al., 2016: 196).

Although material can be conceived, repaired, and transformed into shared resources by commoners, the notion of the commons (Ostrom, 1990), particularly in relation to repairing and maintenance practices, has only recently received attention in urban, social movement, and organization studies (e.g. Borch and Kornberger, 2015; Gidwani, 2013; Kirwan et al., 2016; Stavrvides, 2016; Zapata and Zapata Campos, 2015).

This paper contributes to filling this gap in the literature and builds on discussions of the boundaries and openness of the commons by examining the role of repair in ‘commoning’ – in other words, in creating, maintaining, and living off the urban commons. The paper is informed by the case of the Bike Kitchen in Göteborg, a community bicycle repair shop where anyone can borrow tools to fix their bicycles and where abandoned bikes are recovered and given to members who are taught to repair them.

The paper examines the openness of urban commons by developing three theoretical strands. First, it reveals how, in the process of repairing and transforming abandoned bikes, the commoning community creates a common space between state and market that is porous and permeable (Hardt and Negri, 2009). We claim that it is not only the common spaces that are open, but also the commoners as they develop fluid identities and roles, shifting between identities and roles being situated in or rooted in markets, state, and commons, dissolving the boundaries between them, and creating a malleable context in which new institutions and rules, such as the common space, can be established. This openness of the commoning community also fuels the broad recruitment of participants driven by diverse and entangled rationales in line with new network (e.g. Castells, 2012) and life-style (Haeflner et al., 2012) movements.

Second, we show how urban commons address the tensions of keeping space open, preventing its enclosure, while building rules for its self-governance through simultaneous frontstaging and backstaging (Goffman, 1959) of the repairing practices, as illustrated by the Bike Kitchen.

Third, our findings call into question strict definitions of ‘commoner’ and the commoning/repair movement limited exclusively to those who are politically engaged in opposing the enclosure of the commons. Instead, anyone who participates in commoning activities becomes a commoner, regardless of their motivations, intentionality, and time commitment. The politics of commoning and repair is thus performed through action rather than discourse, making purposefulness and intentionality less relevant in prompting social change.

The rest of the paper is outlined as follows. The next section introduces the theoretical underpinnings of this study. The methods used to collect and analyse the data are then described. After a description of the Bike Kitchen in Göteborg, the findings are presented and then discussed to examine the relationship between commoning and repair practices.

Urban commoning and repair movements

Ostrom (1990) demonstrated that local, self-organized forms of governance constitute an alternative to both the state and the market. Such self-governance of common local resources is still prevalent in cooperatives, indigenous communities, and eco-villages. However, the production of commons is not exclusively reserved for environmental resources, as cities are also factories for producing commons (Hardt and Negri, 2009). More recent literature has expanded the commons concept to include urban commons (e.g. Dardot and Laval, 2014; Harvey, 2012; Jeffrey et al., 2012; Kornberger and Borch, 2015; Stavrides, 2014) such as city parks (Bradley, 2015), squares, urban atmosphere, commons-based housing (Stavrides, 2016), and community gardens (Eizenberg, 2012b). Urban commons have several characteristics: they are produced by collective, non-commodified, and political action; they require physical and symbolic transformations (Harvey, 2012); and they are intertwined with the creation of common space and commoning institutions (e.g. Stavrides, 2014), as we reveal in the following.

Cooking food recovered from dumpsters (Barnard, 2011), exchanging services through time banking (Laamanen et al., 2015), occupying squares (Stavrides, 2014), farming food in cities (Dobernig and Stagl, 2015), and transforming a parking lot into a temporary park (Bradley, 2015) can therefore be reinterpreted as the creation of urban commons, challenging the privatization and commoditization of cities, and the predominant institutions supporting the enclosure of commons (Roggero, 2010; Stavrides, 2014), through everyday practices (Dobernig and Stagl, 2015; Eizenberg, 2012b). By collectively transforming and managing resources and spaces as alternatives to the market and the state, emerging commoning movements develop the ability to reinvent, appropriate, and create urban commons and common spaces.

But how are public and private spaces, infrastructures, goods, and resources transformed into urban commons? Although many emerging commoning movements do not openly confront political institutions (Dobernig and Stagl, 2015), transforming resources and goods into commons eventually requires overt political action (Harvey, 2012). Urban commoning entails collective struggles to re-appropriate and transform what it is perceived should constitute common wealth (Hardt and Negri, 2009), claiming the right to housing through squatting (e.g. Okupa and anti-eviction movements; see Álvarez de Andres et al., 2015), claiming the right of the urban poor to recover waste through scavenging (Zapata and Zapata Campos, 2015), and claiming the right to access discarded food through ‘dumpster diving’ (Barnard, 2011). Put differently, access to resources is a precondition for, but not a guarantee of, the transformation of resources into commons. Commoning instead requires further collective action to create more socially and ecologically just cities (Jeffrey et al., 2012; Reid and Taylor, 2010). Or, as Gibson-Graham et al. (2016) put it, commoning is a relational process, intrinsically related to the community that undertakes but is also constituted by the act of commoning, resulting in a dialectical relationship (Huron, 2015).

Furthermore, the creation of urban commons relies on symbolic transformations. Urban commons are socially defined, meaning that commons are not a particular kind of resource (Harvey, 2012). Rather, they are described in terms of socio-material assemblages involving social practices, institutional arrangements, organizational processes, and socio-cultural meanings. Commoning therefore involves reshaping the meanings and rationales associated with particular commons. This entails the transformation not only of material space but also of the meanings and value of its materiality (Eizenberg, 2012b). Reframing problems and solutions is typically a discursive practice performed by social movements (Benford and Snow, 2000). For example, collective repair movements, such as the repair café movement (Rosner, 2014), are challenging the producer–consumer dichotomy by reevaluating the domestic practice of repair and maintenance (Graziano and Trogal, 2017). In so doing, repair movements also contribute to imagining alternative societal visions and practices and developing an ‘alternative alterity’ (Fuller, 2010) that can drive the creation of new paths and social change (De Angelis, 2003; Schneiberg and Lounsbury, 2017).

However, defining urban commons as socio-material assemblages refers to transformations going beyond rationales and meanings, implying material transformations in the recovered resources. This is when practices of usage, repair, transformation, and consumption clearly become part of the realization of the urban commons (Kornberger and Borch, 2015). Repairing material items, re-establishing the functionality of shared commodities, and sharing knowledge of how to repair them can therefore become essential contributions of collective repair movements to the production of commons.

Beyond political action and symbolic and physical transformations, urban commoning is intrinsically connected to the creation of common spaces, which become not only the setting

but also the means of collective experimenting with alternative forms of social organization (Stavrídes, 2014). Squares, parks, workshops, and cafés are transformed into common spaces hosting the emerging practices of repair and urban commoning. These common spaces, contrary to Ostrom's original ideas, are not delimited and guarded by secluded communities of commoners, but are instead open, porous (Hardt and Negri, 2009), and osmotic (Stavrídes, 2014); otherwise, they could lead to new forms of enclosure (Angelis and Stavrídes, 2010). Other commentators argue that practices of commoning do not necessarily prevent new forms of enclosure, as these practices require both stability and flux, fixity and movement, walls (e.g. norms) and openness (Jeffrey et al., 2012). This means that the boundaries between the market, state, and commons are both fluid and fixed. Commoning, from this perspective, is a relational process transgressing the boundaries of different forms of property (Gibson-Graham et al., 2013, 2016). An open common space is therefore shaped by a threshold spatiality, argued Stavrídes (2014), rather than by a boundary spatiality, as it supports the overspilling of the commons beyond the boundaries of the community, penetrating the market and state, via its porous perimeters. Through these thresholds, new passages are created, opening the inside of the common space to the outside (Stavrídes, 2014) – or, following Goffman's (1959) dramaturgic approach, frontstaging the backstage of urban commoning practices, as we argue below.

The organizing and governance of the commons also require the creation of alternative institutions of commoning following particular practices, routines, and rules, as Ostrom observed. In that process lies what Roggero (2010) called the problem of the 'institutions of commoning'. When commoning is institutionalized, its boundaries become more difficult for newcomers to cross, and the commoners increasingly become a closed community with 'predictable and repeatable social practices' (Stavrídes, 2014: 548) and, as a consequence, less open and common. Commoning institutions therefore differ from the dominant ones 'not only in the content but also in terms of form' (Stavrídes, 2014: 548), promoting issues of self-governance, equality, and transparency, and thereby challenging dominant market and state institutions with both their discourses and organizing practices.

Star (1999) has argued, from an ethnographic perspective, that infrastructures as well as maintenance and repair work remain invisible to most until they break down. At such times, the city's backstage becomes momentarily frontstaged (Henke, 2000). In other words, repairing remains a backstage (Goffman, 1959) of cities and infrastructures (Kaika and Swyngedouw, 2000). Indeed, the lack of transparency in how commodities function and even in their design for obsolescence has been used to deliberately hinder self-repair practices outside corporations (Verbeek, 2004), making it easier to buy a new product than to replace, for example, an old battery in one's mobile phone. These issues lead us to conclude that the politics of repair (Graham and Thrift, 2007) resonates with issues of power and knowledge. Such deskilling strategies have resulted in growing volumes of waste, with waste generation becoming one of the most serious global environmental challenges faced by today's societies.

In this context, repair initiatives are emerging as new forms of collective organizing to counteract the consume-and-discard society (Graziano and Trogal, 2019), providing tools for the constitution of commoning institutions that can help recreate new politics of collective repair from below, as Stavrídes (2014) has argued in relation to the creation of common spaces in crisis-ridden Athens.

In the 'Discussion' section, we use the conceptual framework developed above to discuss the commoning and repair practices presented in the 'Findings' section.

Methodology

The paper is based on a case study (Flyvbjerg, 2011) of a bicycle repair shop, the Bike Kitchen in Göteborg, Sweden. Our data comprise: participant and non-participant observations (one of us having been a Bike Kitchen board member for four years) of meetings, workshops, and events; the study of documents, social media communications, and mass media news coverage; and 17 face-to-face interviews.

We conducted in-depth interviews with five Bike Kitchen board members and two 'Kitchen Masters', and 10 interviews (conducted during repair activities) with Bike Kitchen members (two women and eight men, six born outside Sweden). 'Kitchen Master' is a term used in the Bike Kitchen to refer to the volunteers who help keep the Kitchen open. In this article, the terms Kitchen Master and volunteer are used synonymously. Board members and Kitchen Masters were selected to represent new and former members, male and female. Members are predominantly (approximately 80%) male, and there is considerable participation of foreigners, both students and immigrants/refugees. Many members are relatively new to Sweden, looking for an affordable bicycle as well as a social activity.

The in-depth interviews lasted 45–90 minutes and were usually conducted at the Bike Kitchen. Interviewees were asked about the Bike Kitchen's history, main activities, achievements, organizational structure, resources (financial, human, and material), member and volunteer recruitment, physical facilities and activity space, challenges, opportunities for scaling-up, and future plans.

Since the purpose of this study is to understand repair and commoning practices and their relationship with space, the collection of documents or interviews alone was insufficient. It was also necessary to observe the actions and practices of Kitchen Masters and members both during opening hours and when the Kitchen was closed to the public. The two of us who are not Bike Kitchen members conducted observations for several opening hours in January, February, and March 2017 and, since 2015, also during events organized in collaboration with the City of Göteborg, non-governmental organizations (NGOs; i.e. bike workshops hosted by the Swedish Tenants Association), and student associations (i.e. Re:Cycle day organized in collaboration with Chalmers University's Students for Sustainability), as part of a broader research project on municipalities and waste prevention in Sweden.

Similarly, the inside observations by the researcher who is a board member provided important information regarding the governance of the Bike Kitchen. This triangulation of methods can offer inspiration for further studies of social movements, studies that go beyond simply exploring the discourses and rhetoric of movements.

When the study began, two of the authors had recently conducted studies of waste prevention and urban commons. In those studies, they came across Göteborg's Bike Kitchen, where the third author had been active. From the earlier studies, we observed that repairing practices at the Bike Kitchen would be a useful object for a study of commoning and commoners' communities. In other words, the concepts of urban commons and social movements were in our minds from the beginning. Throughout the initial design of interviews and observations, we strove to understand what constituted commons, the role of space in commoning practices, the conduits created to collect assets to be transformed into commons, the role of knowledge, the rationales of participants, and the perceived effects and changes of the initiative.

Our research strategy has been pragmatic in that it began deductively with these concepts in mind, as we started to collect and code data, allowing new categories to emerge from the

stories told by the interviewees and captured in pictures and in the media. For example, as we continued to code and began to categorize, we found that Goffman's frontstaging/backstaging dynamic and Hardt's and Negri's work on the fluidity and openness of the commons worked well to help us sort the data. The analytical work then evolved into abductive, iterative moves between collecting, sorting, coding, and probing the data, until we could reconstruct the multi-layered story of the Bike Kitchen (Charmaz, 2016) and conceptually develop further questions regarding openness in repairing and commoning practices. The categories were collapsed into different themes that are plotted together in the 'Findings' section.

The study builds its conclusions and theoretical development on the single case (Flyvbjerg, 2011; Ridder et al., 2012) of the Bike Kitchen in Göteborg, although it is part of several interlocked research projects. The knowledge developed from those previous studies facilitated our role as researchers, helping us develop an in-depth understanding of the case and its Göteborg setting (Ridder et al., 2012). Similarly, as a single-case study, the characteristics of the commoning practices observed here correspond to the local translation of the global concept of the Bike Kitchen to the particular context of Göteborg. While some of the practices could be generalized to other Bike Kitchens and repair movement initiatives elsewhere, the particularities of the Swedish context constitute the setting (e.g. the special collaborative institutional arrangements existing in Swedish cities, as we describe in the 'Conclusions' section), which must be considered when generalizing some of the results.

Findings

From a global repair movement to the Bike Kitchen in Göteborg

Bike Kitchen is a global, open-source, do-it-yourself movement in which people learn to repair their bikes. Most Bike Kitchens have tools and parts, which may be donated by citizens, local businesses, housing companies, or the police, as well as mechanics and cyclists who share their repair knowledge with users. Bike Kitchens are non-profit organizations, generally run by volunteers, but they can develop into various organizational forms (Bradley, 2018) depending on the institutional context. While some are run on a low-cost basis and may therefore operate irregularly, others enjoy institutional support from NGOs or local governments, enabling, for example, limited paid staff or the subsidy of better facilities (Johnson, 2014).

The first Bike Kitchens were created in the 1980s in cities such as Vienna and later in the 2000s in other European and US cities, such as Berlin, Barcelona, Brussels, Milan, Rome, Toulouse, Los Angeles, San Francisco, and Sacramento, thereafter spreading around the world to cities such as Buenos Aires, Ghana, and Toronto (Bradley, 2018). The first Bike Kitchen in Sweden was created in Malmö, the third largest city in the country, in April 2011, inspired by the Los Angeles Bicycle Kitchen. From there, the concept rapidly diffused to Göteborg in 2011.

Göteborg is the second largest city in Sweden and is considered to be at the forefront of waste prevention and sharing-economy practices, in terms of both local policies and grass-roots organizations (Zapata Campos and Zapata, 2017). Biking is a common activity for both transport and exercise in Sweden. Most housing blocks in the country, owned by either companies or associations of individual owners, provide bike rooms where residents store their bicycles. Thousands of bikes are abandoned every year when residents move away or when children grow up. These numerous unclaimed bikes are collected, stored for three

months, and then usually sold as scrap. Bike Kitchens in Sweden take advantage of this wasted resource, claiming the right to reuse and repair the 'waste' bikes, using them for spare parts when teaching members how to repair bikes. The Bike Kitchen is supported by the city and housing companies because it presents a solution for dealing with abandoned bikes, and because it helps create a living neighbourhood, engages youngsters, and supports biking as part of more sustainable mobility policies (City of Göteborg, 2017).

In Göteborg, the Bike Kitchen was driven by a group of volunteers and engaged cyclists, with the support of the Swedish Tenants Association and later municipal housing companies such as Familjebostäder. Other than abandoned bikes and volunteers' time and knowledge, the Bike Kitchen's economic resources in Göteborg come from yearly membership fees (€5 for students/unemployed and €10 for others, giving members the right to one old bike in need of repair), support from a non-profit organization that pays part of the facility rent, private donations, and remuneration for the repair workshops and events the Bike Kitchen regularly holds for other organizations.

Despite initial success, it took a while for the housing companies in Göteborg to learn that the Bike Kitchen existed as an alternative to simply discarding abandoned bikes as waste. In its first years, Bike Kitchen members would go dumpster diving to rescue bikes. Bike Kitchen members also complained in the local mass media about the municipal estate agency's practice of selling abandoned bikes as scrap, instead of giving them to other users or communities, such as the Bike Kitchen:

Göteborg says it wants to be a world-class bicycle city. But reusing old bicycles seems difficult. Bike Kitchen has tried to give rusty old wrecks a new and well-greased life for years. And for years they've tried to get collaboration going with Familjebostäder [a municipal estate agency], without success. Is this a policy for a world-class bicycle city? (Interview with a Bike Kitchen member in *Göteborg nonstop*, 2015)

Time has passed, and the Bike Kitchen has succeeded in spreading the concept of recovering and fixing bikes among housing companies, to the point that the current challenge is to manage the huge volume of abandoned bikes. Despite the success of the concept, Bike Kitchen members are unwilling to grow the organization, earn profits, or create new branches themselves: 'Lots of people want us to grow – we want to spread, I think it is on its way to happening ... we can offer seminars, transfer this knowledge rather than pointing out what you [i.e. new Bike Kitchens] have to do' (Interview I).

The Bike Kitchen has been affected by its success: many people visit it on open days, and the Kitchen is full and crowded. Accordingly, some Bike Kitchen members have been making personal efforts to spread the concept by collaborating with NGOs (e.g. the Red Cross), housing companies, and the municipality, holding events and helping create new Bike Kitchens in other parts of the city, sometimes voluntarily and sometimes through individual professional collaborations. As one Bike Kitchen member commented, 'the concept is there, it is almost like a contest to guess which city district will see the next Bike Kitchen' (Interview In).

Frontstage and backstage of the Bike Kitchen

The Bike Kitchen opens its doors to the public three days per week to share its tool pool, workshop repair space, pool of abandoned bikes and spare parts, and volunteers' time and knowledge with anyone who wants to join in. When the Bike Kitchen opens, people are usually already queuing outside. Normally, they are new members who first register and

then choose a bike project to start working on. Others come back with their unfinished 'projects'. During opening hours, the Kitchen's 'frontstage' is opened by the Kitchen Masters, as directors of the repair activities, welcoming newcomers, informing them of the rules, registering new members, assigning bike projects, ensuring that rules are followed, answering questions about bike repair and the location of tools or spare parts, guarding the security of the facility and the visitors, and ensuring that people work quickly to allow new members to enter. Recruiting volunteers to regularly open the Kitchen is one of its biggest challenges. If some Kitchen Masters constantly staff the facility, that might dissuade other potential volunteers from helping. Some regular volunteers have strategically scaled back their presence to permit other members to engage more actively.

Open times can be stressful and hectic, as the Bike Kitchen can receive up to 100 members in one evening. On top of that, the facilities are shared with other social projects, such as the 'community fridge', with similar opening hours, interfering in the repair activities at the Kitchen. The pressure during opening hours means that Kitchen Masters develop strategies to accommodate the overflow of people and bikes in the restricted space. They reorganize tools to make them more visible and try to optimize the flow of people and bikes in the restricted space. Bringing in fewer bikes is also a way to attract people more interested in repairing than in getting a bike. Open times are officially limited to two hours, though in practice the Kitchen closes at almost midnight six hours after opening. The formal opening hours are deliberately kept limited, as otherwise 'people would just keep dropping in continuously' (Interview L). Some regular volunteers usually show up after a while to help the Kitchen Masters on duty.

By contrast, days when the Bike Kitchen is closed to the public represent the backstage. Outside official opening hours, especially on Fridays, informal gatherings occur at the Bike Kitchen for volunteers only, as a reward for their dedication. It is a time for backstage volunteers to clean up and organize the tools and working surfaces. It is also a time to work on one's own bike project (Figure 1). It is an intimate, more relaxed time and space, with fewer people and more regulars who know each other and can socialize. This closed space is significant in fuelling the volunteers' energy and creating the necessary order to open up the Bike Kitchen to the public – the frontstage. However, even during closed evenings, if people arrive, knocking on the door and asking for help, they are admitted. The closed space is not totally closed.

The Bike Kitchen's openness and the members' entangled rationales

Teaching people to repair their bikes is the most important activity and goal of the Bike Kitchen, and the claim is that this will help people to 'take care of what they have' (Interview A):

By giving bikes to new owners and letting people come to repair their bikes, we show people that they can repair their bikes. That it is not at all as difficult as one thinks . . . and that one can take care of what one has. (Interview A)

Repairing is also a means to escape from the consumption society, 'to reuse goods that do not need to be bought again' (Interview I) and to 'repair and reuse things' (Interview member A). In the words of two Kitchen Masters:

Bikes are a means to make people understand that we are not helpless, we can repair and fix things ourselves – without falling into the consumption trap. (Interview O)



Figure 1. A Kitchen Master and a bike project.

For some members, repairing means a lifestyle of lower expenditure, less dependence on work, and more free time: ‘Without being so dependent on money and consumption, here I get an education for free, I learn to fix bikes! I can get parts, and parts I don’t use, someone else can use’ (Interview Ok).

Being trained in bike repair motivates many volunteers to participate. Collectively learning to repair bikes and sharing that knowledge are also important rationales cited by Bike Kitchen members for participating in the repair activities: ‘In a way, so that people teach each other’ (Interview K). It is not just learning to repair bikes that is appealing, but, more specifically, the idea of sharing that knowledge: teaching and learning from one another: ‘Some people come here and stay and think that it is fun to be here, that it is fun to help other people. Often they think they are pretty good at fixing bikes and they can learn from me, ha ha ha’ (Interview In). The social dimension of being together and learning to repair bikes is another important rationale attracting Bike Kitchen members to the repair activities.

However, many members are instrumental and visit the Bike Kitchen strictly to get a free bike or spare parts. During opening hours, it is common to see individuals arrive to fix something right away, and then leave. Even thieves can contribute (although unintentionally) to rescuing abandoned bikes from disuse, according to a volunteer organizing a Re: Cycle event (Figure 2) with a student association. When the volunteer was asked about the possibility of bikes being stolen the night before the event, she answered: ‘It is OK, the goal would have been achieved – bikes are rescued’. All in all, many hands contribute to repairing abandoned bicycles, regardless of their motives and time commitment.

Even if people come for a free bike, or to learn to repair their own bike, the feeling of empowerment from learning to repair and then teaching others might take over: ‘The bikes and repairs are a perfect excuse to hang at the Bike Kitchen and share the experience’ (Interview F). This implies that rationales for repairing are often entangled and difficult



Figure 2. Re:Cycle day.

to separate for many participants: ‘Repairing is fun. I get angry with things that are made not to be repairable – I have always had an interest in sustainability’ (Interview L). Social, environmental, and instrumental rationales drive people to the Bike Kitchen, as both users and as volunteers.

Even more importantly for members coming to the Bike Kitchen for the first time and learning to repair even a simple part of their bike, the learning process can be transformative: ‘Lots of people realize the possibilities that open up, they get excited, realize what they can do . . . this is empowering, it can affect how people think’ (Interview I). We heard many stories of how bike repairing was empowering Bike Kitchen members: ‘As soon as they start repairing a bike, they realize they can repair other things as well. If they feel it’s fun to do that, we gain a lot as a society. Repairing things might be something we have forgotten to do as a society. I remember spending time with my uncle in a small apartment with his wife and three kids. They had a big box of slightly broken toys, they spent Sunday as a repair day’ (Interview L).

The strong focus on doing rather than talking was also perceived as empowering by more experienced Bike Kitchen volunteers and board members: ‘It is more about doing things . . . it’s a little bit less about conversation and more about action . . . people are very altruistic, very social, and close to political action. Even if they don’t talk about it. The people who hang around here have a different type of consumption . . . but we don’t talk about it, it’s not preachy’ (Interview I). Bike Kitchen members engage unintentionally in political action through their recycling and repairing actions, rather than through discourse; they have developed a collaborative and open strategy to engage with a broad array of actors.

Discussion

We start the discussion by elaborating on how the Bike Kitchen creates a common space in contradistinction to state and market spaces, an open and malleable space inhabited by commoners with fluid roles and identities. We continue by discussing how this common space is also kept open for newcomers, preventing its enclosure, through a dramaturgic representation of the space in which simultaneous practices of frontstaging and backstaging take place. We end by discussing how the commoning/repair movement involves the politics of repair and political action, unintentionally or not, and what this implies for redefining the commoner.

Openness of commoning and fluidity of commoners

Every time the Bike Kitchen opens to the public, an urban common space is recreated. At that time and place, several actions are linked: abandoned bikes are rescued and shared with commoners, and the necessary bike repair knowledge is shared through collective and non-commodified actions and events. This space is neither public nor private: it is a liminal space (Kirwan et al., 2016) between the market and the state. The commoners' boundary work is fundamental to the symbolic and material reproduction of both the recovered bikes as commons and the workshop as a common space. One relevant example was when Bike Kitchen volunteers and board members strove to define the Kitchen's boundaries in their stories: the Bike Kitchen 'is not a business competing with repair shops' (Interview L); 'We get lots of questions: "Do you sell bikes?" No, we don't... even if we tried to make money it would not work' (Interview I); 'We have freedom as it is non-profit and we don't get money from the city' (Interview In); 'Subsidies kill voluntarism... fewer people are willing to volunteer if one person is being paid, for example, by a local government' (Interview I). Through this boundary work, commoners' and repairers' identities are constantly remade in relation to 'the others' (i.e. the state and market). The desire expressed by the interviewees to be independent from both state and market organizations pushes the Bike Kitchen to rely on a commoning organization in contradistinction to public, private, and professional organizations.

However, simultaneous with their boundary work, commoners also create points of connection with other spaces. The liminal space (Kirwan et al., 2016) they recreate is not impermeable, but rather porous or, as expressed by Hardt and Negri (2009), 'open' and 'perpetually in flux'. Some Bike Kitchen members have established ties with politicians and public officers from various city districts and municipal departments to organize bike repair workshops, to train particular groups (e.g. women and refugees) to cycle and to maintain their bikes, and to create new Bike Kitchens where some former regulars are employed by the city, for example, to train bike mechanics. While they want to keep their independence, they also believe that for Bike Kitchens to survive, a public model might be more sustainable: 'You can only find so many real enthusiasts to run a Bike Kitchen, based solely on volunteers. To have more of them running in a sustainable way, it is probably necessary to have support from the city – or someone' (Interview F). While many commoners are involved in the Bike Kitchen as an alternative lifestyle, many of them also acknowledge the value of the repair skills they develop at the Kitchen: 'It's like an education – I learned a profession... I could open a repair shop' (Interview L). Similarly, while tools, space, and knowledge belong to the commons space, bicycles continue being privately owned, and other resources might be publicly owned.

This openness of the commons allows members, the commoners, to shift roles unproblematically, moving back and forth between the commons, state, and market. This is consistent with previous findings that urban commoning occurs through collaboration, cooperation, and communication (Hardt and Negri, 2004) rather than individually through competition (Eizenberg, 2012b). It is also coherent with research into lifestyle movements (Haenfler et al., 2012), such as food networks, illustrating how new social movements articulate their actions through collaborative networks incorporating a broad range of actors, including ‘those who in other situations are locked in antagonistic relationships’ (Gibson-Graham et al., 2016: 196), rather than overtly fighting them as political opponents (Levkoe and Wakefield, 2013). Commoners are an assemblage comprising not only various actors, but also market and non-market mechanisms, gaining access to different types of public, private, and open-access property (Gibson-Graham et al., 2013). The fluidity of the commoners’ roles echoes a dramaturgical perspective on social interaction, on which we elaborate next, according to which identity is not stable, but constantly remade (Goffman, 1959) as the person interacts in different contexts, such as the market, state, and commons. Building on Hardt and Negri’s (2009) ideas of the commons’ openness, we argue that not only are common spaces open and porous, but also that the commoners themselves are fluid, becoming the vehicle by which urban commoning expands beyond defined communities. Commons therefore ‘are never complete and perfect and may even have components that contradict the ideal type’ (Eizenberg, 2012b: 765), sometimes bringing together a paradoxical mixture with instances of market and state institutions.

Frontstaging and backstaging practices and the openness of commoning

Opening the ‘kitchen’ to the public metaphorically means frontstaging the backstage, that is exposing the often hidden and forgotten knowledge of repairing. By teaching others to repair bikes and openly sharing this knowledge, the Bike Kitchen contributes, as other repair movements do, to opening up the ‘black box’ of technologies and products, frontstaging the backstage, revealing the interior and hidden mechanisms of these abandoned bikes.

Dramaturgy is a sociological perspective in which theatre is used as a metaphor in understanding social interaction in everyday life. Goffman (1959: 486) defined ‘front stage’ as the space and time in which actions are visible to the audience, functioning in a general and fixed fashion. People engage in backstage behaviours when no audience is present and they can therefore relax, out of character, without fear of disrupting the performance; for example, a waiter in a restaurant is likely to behave more formally in front of customers but will be much more casual in the kitchen.

This process of frontstaging the backstage resonates with Stavrides’ (2014) ideas of threshold spatiality. Stavrides illustrated how, in the occupation of Syntagma Square in Athens, the ‘park’s porous perimeter’ was ‘defined by spatial arrangements which acquire the characteristics of a threshold rather than those of a boundary’ (2014: 547). This porous space created a passage by ‘opening the inside to the outside’ (Stavrides, 2014: 547) – in other words, by frontstaging the backstage. We build on Stavrides’ ideas of threshold spatiality, arguing that beyond the porosity of spatial arrangements, it is also the dramaturgic representation of the space, through simultaneous frontstaging and backstaging practices, that allows the creation of these openings through which urban commoning practices are opened up to newcomers outside a given community.

Nevertheless, the openness of the frontstage for commoning and repairing cannot be taken for granted. In Ostrom’s work, the common pool resources are clearly delimited,

and mechanisms controlling access to the commons and the status of commoners are set up in place. Angelis and Stavrides (2010) explained how institutions of commoning may also lead to forms of enclosure. On that note, Harvey clarified how ‘some sort of enclosure is often the best way to preserve certain kinds of valued commons’ (2012: 70). In the case of the Bike Kitchen, the low, nominal fee necessary to become a member and enter the frontstage does not prevent any members (e.g. students, unemployed, and refugees) from participating. Nevertheless, issues related to space and time constrain the openness of the frontstaging for the commoning and repair practices; for example, the central location of the Bike Kitchen’s workshop discourages users from distant areas from travelling across the city to participate; the predominantly male membership composition might dissuade some women from entering the workshop; and the small size of the workshop itself clearly limits the number of users who can make repairs at any given time, so restricted opening hours are deliberately used to regulate the flow of commoners. Aware of these limitations, Bike Kitchen members, as reported regarding other repair movements, share a desire to grow and expand to include more commoners, as Graziano and Trogal (2017) demonstrated in the case of Repair Cafés and Restart Parties in the UK. The Bike Kitchen in Göteborg would like to help create new Bike Kitchens elsewhere in the city as one strategy to expand the common space and involve other potentially excluded groups, and has discussed the possibility of opening at certain times for women only to enhance gender equity among Kitchen members. By creating new rules that regulate the commoners’ actions and rights in a more open and transparent manner (or at least actively self-reflecting and publicly deliberating these issues), the commoning institution distinguishes itself from dominant institutions (Stavrides, 2014).

Beyond the struggle for the openness of the Bike Kitchen’s frontstage, the case also illustrates how, following Goffman’s dramaturgic approach, frontstaged ‘repair practices’ paradoxically require a backstage to guarantee the openness of the commons space. If the Bike Kitchen frontstage is its opening hours, its backstage is the times when entrance is permitted only to volunteers. In other words, this ‘kitchen’ requires another backstage where volunteers, like the servers in Goffman’s example, can relax, fix their bikes, have fun, and learn from one another. The commoners create boundaries to restrict the movement of individuals between regions, creating temporal enclosure of the commons space, for example, by establishing particular open times, workshops, and repair parties. Yet, even these boundaries between the frontstage and backstage are fuzzy, as, for example, individuals needing help late in the evening might be allowed to enter the backstage. Graziano and Trogal have also observed that sites of collective repair are not just about ‘learning technical skills and knowledges but the spaces themselves need to be “socio-technically” fixed to become transversal and intersectional socialization spaces’ (2017: 15). The backstage of the Bike Kitchen can be equated to what one activist describes as ‘janitorial work’, including the hosting and coordinating of many meetings (Graziano and Trogal, 2017). Commoning therefore requires a backstage space where members relax, release tension, prepare the physical stage, and get ready for the frontstage representation. Even more importantly, the backstage is what fuels volunteers’ engagement in commoning their knowledge during the frontstage repair workshops. Without this backstage, and the relative and temporal closure of the commons space, the openness of the frontstage would not be possible.

The politics of commoning through action

Frontstaging the hidden backstage of technologies and products is a political action, whether intentional or not. Frontstaging makes public an alternative ‘set of values based on the

use-value of the space rather than its exchange-value, such as the high value that gardens offer for the livelihood of people, their contribution for social and cultural life, their role in improving neighborhoods and in creating meaningful spaces for residents; with that they also discharge principles of accumulation and capitalist practice values' (Eizenberg, 2012b: 778). According to Harvey (2012), it is precisely this political action that allows the re-appropriation of commons by commoners. The Bike Kitchen offers many examples of members complaining in local mass media about municipal housing companies' and homeowners' practice of throwing away bikes, reframing bicycles in terms of their use value rather than their exchange value as scrap.

Commoning/repair movements present their frontstage self in the mass media to capture the general public's attention (Benford and Snow, 2000). In this presentation, they generate counter-hegemonic representations (Eizenberg, 2012a) of their commoning and repair practices. Claiming the moral right to discards recalls ideas of environmental stewardship (Bruun et al., 2017; Lane and Watson, 2012) and of societal responsibility for the environmental commons that goes beyond private ownership (Bialski et al., 2015) and that frontstages the use value before the exchange value. Claiming the right to access the commons and to repair also recalls ideas of the 'right to the city' (Harvey, 2012; Lefebvre, 1968), as others have argued with regard to common space (e.g. Eizenberg, 2012b).

However, these initiatives, like other lifestyle movements (Haenfler et al., 2012; Laamanen et al., 2015), challenge dominant values not mainly through open confrontation with institutions, nor mainly by creating a frontstage discursive drama (as alluded to by Benford and Snow, 2000), but mostly, we argue, by their repairing and commoning practices. Everyday practices performed by these initiatives become political actions whereby citizens express political and moral concerns without necessarily engaging in conventional activism (Eizenberg, 2012b; Zapata Campos and Zapata, 2017). The organizing of public events, such as the Re:Cycle days or other workshops, contribute tacitly to publicizing the discussion of the commons and the immoral waste of resources. These apparently harmless events, however, are political in their aim to transform societal views of private property, consumption, and morality.

Yet not all the enrolled Bike Kitchen members are strictly motivated by the dominant environmental rationales or an explicit desire to change society. In fact, a feature of the commoning movements is their ability to mobilize commoners and get them to work, regardless of whether they share the values and rationales of the organizers. Material needs, sociability, and environmental concerns are the main rationales behind membership, which are often entangled and difficult to separate (Gutberlet et al., 2016). As in the new commoning movements, the participants in the Bike Kitchen activities do not present strict ideological coherence or high time commitment, but rather uphold various goals, as observed in the food movement (Levkoe and Wakefield, 2013), the community garden movement in New York (Eizenberg, 2012b), and the Indignados and Occupy movements (Álvarez de Andres et al., 2015; Escobar and Osterweil, 2010). As Harvey (2012: 74) also observed, 'many different social groups can engage in the practice of commoning for many different reasons'. In practice, the commoning community consists of an assemblage of various actors, combined in an 'unlikely mix' or a 'multi-species community' (Gibson-Graham et al., 2016: 196) sharing the action of commoning.

These findings call into question strict definitions of 'commoners' and the 'commoning/repair' movement as limited to those who are politically engaged in opposing the enclosure of the commons and in supporting the institutions of the commons (Roggero, 2010). Anyone who participates in commoning activities becomes a commoner, regardless of motivation, intentionality, or time commitment: it is the action of commoning and repairing that

makes the commoner/repairer and not the reverse (Czarniawska-Joerges and Joerges, 1996). Commoning can thus to some extent be occasional, and a commoner becomes a commoner when in the common space, but not necessarily when elsewhere.

Discourse and rhetoric are secondary, if not totally avoided as detrimental to action, making purposefulness and intentionality less significant in commoning. The question of purposefulness, as noted in this case, echoes previous research into urban commons where intentionality is not always a prerequisite for urban commoning. For example, Stavrides illustrated how creating common spaces ‘means, explicitly or implicitly – *sometimes in full conscience* [sic], *sometimes not* – to discover the power to create new ambiguous, possibly contradictory but always open institutions of commoning’ (2014: 549). Here, we have provided evidence of the centrality of action in place of discourse, so purposefulness remains secondary in commoning practices and in the social change they prompt.

Finally, the repair and commons movements challenge corporate efforts to deskill both repairers and consumers and transfer their knowledge to firms (Graham and Thrift, 2007; Head, 2003; Henke, 2000). They challenge social imaginaries, redefining societal alterities to the consumption society. Like other urban commoning movements (Eizenberg, 2012a), they challenge the undervaluing of reproductive labour and instead subversively contribute to the revalorization of care practices by taking them out of the household, market, and state to the community via sociable practices (Graziano and Trogal, 2017).

This finding resonates with a previous commons study of community gardening, which found that a sense of attachment, empowerment, and ownership was developed by the commoners by diffusing alternative representations of the common space produced by the immigrants working in the gardens (Eizenberg, 2012b). These commoners’ actions incorporated underlying elements of anti-work politics whereby some commoners resisted the capitalist regime of work and consumption, embracing a less orthodox lifestyle of self-education far removed from mainstream knowledge, institutions, and hierarchies. Nevertheless, the repair and commons movements also to some extent to reproduce gender roles (i.e. upholding male-dominated activity) and hierarchies (e.g. the expert role). For example, Schor et al. (2016) showed how maker spaces can be exclusionary, generating conflict when members are perceived as different. Similarly, tensions of exclusion in replicating gender divides have been observed in local initiatives of the repair movement (Rosner, 2014; Rosner and Ames, 2014). However, these movements also incorporate reflexive practices as another mechanism to continuously foster the openness of the commons space – for example, by volunteers’ deliberately stepping back to encourage new volunteers to take leadership (being open to ‘newcommoners’; Rancière, 2010; Roggero, 2010; Stavrides, 2014), feeling uneasy at being treated like bosses (and therefore reproducing the expert–user hierarchy, as Rosner and Ames (2014) have shown), and discussing whether it would be good to have special open times for women only.

Conclusions

This paper advances current efforts to expand urban commoning studies by examining the role of maintenance, repair, and care in ‘commoning’, or creating urban commons. Building on the notions of the openness and porosity of commons spaces, we make three theoretical contributions to this emergent body of literature.

First, collective repairing movements create liminal spaces between the state and market. These porous and permeable spaces allow commoners to move fluidly between the market, state, and common space, shifting roles unproblematically back and forth from being commoners to being consumers/entrepreneurs and political citizens. The common space

examined here is more open than in Ostrom's accounts. Building on Hardt and Negri's (2009) ideas of the openness of the commons, we claim that not only is the common space open, but also that commoners adopt fluid identities, shifting among a wide range of roles as repairers, producers, sellers, and 'prosumers' (Dobernig and Stagl, 2015), becoming the vehicles by which urban commoning practices expand and can infiltrate other spaces.

Second, building on Stavrides (2014, 2016), we illustrate how the openness of common space also necessitates working in reverse, creating openings for newcomers to enter and participate in urban commoning practices and for commoners to bring these practices out into the world. Common space therefore incorporates passages allowing fluid movement from inside out and vice versa. In this paper we have shown that, beyond the spatial arrangements previously observed in the literature, it is also the dramaturgic representation of common space, through simultaneous frontstaging and backstaging practices, that prevents the enclosure of the commons by the defined user community. Through their repair and commoning practices, these collectives frontstage the hidden backstage of resources and goods, reclaiming the knowledge of repairing for the commoners. Simultaneously, front-staged collective repair practices require a backstage, although reduced and porous. As the case of the Bike Kitchen illustrates, the commoning and repair movements require a backstage that fuels commoners' engagement in the frontstage repair workshops. This is equivalent to the 'janitorial work' (Graziano and Trogal, 2017) identified in repair movement initiatives, where spaces 'need to be "socio-technically" fixed' (Graziano and Trogal, 2017: 15), including through the preparation of physical facilities, administrative and management work, and even emotional labour as the critical infrastructure, or backstage, of commoning and repairing practices.

Third, as in the new lifestyle movements (Levkoe and Wakefield, 2013), commoners become political through action – that is, their commoning and repair practices – rather than through discourse. It is the action of commoning that defines the commoner, not the reverse (Czarniawska-Joerges and Joerges, 1996). Commoners are ideologically heterogeneous, as are participants in other lifestyle movements. Rationales for repairing and commoning practices are diverse and entangled. Since the action of commoning determines who is the commoner, we conclude that intentionality may be less relevant in prompting social change than traditional urban social movement and organization studies have previously suggested.

The case of the Bike Kitchen in Göteborg is useful for drawing conclusions regarding the global Bike Kitchen movement, as well as the larger repair movement, together with their processes and practices. Local environmental governance in Göteborg and many other Swedish cities is characterized by a new generation of environmental policies (e.g. addressing climate change, waste prevention, and sustainable consumption) that are expanding the scope of the public sector, including market and non-governmental actors, and redrawing the boundaries between public, private, and non-governmental organizations (e.g. Zapata and Zapata Campos, 2018). Local governments are also enabling the repair of collective infrastructure by supporting maker spaces, tool libraries, and repair events (Hult and Bradley, 2017). These emergent policies have opened up new political collaborative spaces (Torfing et al., 2012) where commoner/repair movements such as the Bike Kitchen, maker-spaces, and repair cafés participate and develop symbiotic relationships with other involved actors, such as the city administration and municipal housing companies (Bradley, 2018; Zapata Campos and Zapata, 2017). Features of openness and porosity between the state, market, and commons can therefore be generalized to other stable, receptive, and porous institutional contexts, like the one informing this paper. In stable contexts, cumulative change in the form of new commoning practices can be slowly infiltrated

(Zapata Campos and Zapata, 2017) through collaborative relationships, rather than the explosive contexts described by Stavrides (2014) in crisis-ridden Athens.

The results must also be interpreted in the context of a major Scandinavian city, possessing ample political support and resources to facilitate the collaboration between commoning communities, municipal housing companies, and other city departments. Notably, in wealthy societies in global North cities, resources such as used bikes are thrown away on a massive scale, creating an overflow of potential resources (Corvellec and Czarniawska, 2015) that become scrap and waste. From that perspective, the global concept of the Bike Kitchen has been locally translated into the existing institutional arrangements, resulting in a Scandinavian expression of this global movement.

In this paper we have argued that commoners become political through action – that is, their commoning and repair practices – rather than through discourse. Does this apply to the totality of the repair movement itself? The repair movement is very heterogeneous and includes a diversity of initiatives ranging from those fighting for legislative change – for example, addressing planned obsolescence through campaigns to eliminate technological and legal barriers to repair and reuse (Bluff, 2016; such as the Repair Association or iFixit) – to local community repair workshops (often inspired by or translating global models, such as repair cafés) focusing on the pedagogical, social, and mundane practices of repair (Graziano and Trogal, 2017, 2019). While all of these initiatives are part of the emergent repair movement, the community repairing initiatives offer an opportunity to massively recruit commoners and repairers to swell the ranks of this everyday army, regardless of their intentions to socialize, learn, improve their economic and material living conditions, or save the planet. Future research would benefit from examining other contexts and situations, as ‘part of the politics of everyday life’ (Laamanen et al., 2015: 459) where purposefulness and intentionality are secondary, as this paper has revealed.

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ORCID iD

Patrik Zapata  <https://orcid.org/0000-0002-7029-1195>

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