Understanding low-carbon food consumption transformation through social practice theory: The case of community supported agriculture in Norway

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Abstract

Drawing on a qualitative case study of consumers involved in community-supported agriculture farms in Norway, this article applies social practice theory to understand pro-environmental behaviour transformation in relation to community-supported agriculture. Situating social practice theory in the larger framework of the political economy of low-carbon transformation provides a holistic and grounded perspective on consumer behaviour change and potential for social transformation. In contrast to conventional individualistic and rationalist approaches, our study suggests that there is no linear path of transformation; rather, people join community-supported agriculture to use their consumer power to push for social transformation. Simultaneously, community-supported agriculture influences a reorientation of values and practices because it opens up opportunities and resources for sustainable lifestyles. We argue that the collaborative aspects of community-supported agriculture can challenge unsustainable consumption by emphasizing sharing over private ownership and frugality over accumulation of growth. However, the consumer practices of the wider political economy produced by the ‘culture of capitalism’ continue to be ingrained in people’s social relations and contexts, and thus weaken new and more sustainable forms of food consumption.

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Introduction

Contemporary consumption practices play a vital role in greenhouse gas emissions, and it is becoming increasingly clear that curbing consumption is necessary to avoid dangerous anthropogenic interference with the climate system. Contemporary food production and consumption is an important contributor to greenhouse gas emissions and the IPCC special report on Climate Change and Land (2019) has stressed that people need to change their food practices, including their dietary habits and the amount of food consumed and wasted, if we are to stay below the 1.5 degrees threshold. Actions to this end are also in line with the 2030 Agenda's goals to end hunger, ensure sustainable consumption and production, take climate action, and protect life on land (SDGs 2, 12, 13 and 15). It is increasingly acknowledged that changing food consumption requires not only a technocratic approach, but also changes in practices and mindsets, and ultimately a fundamental transformation of our societies (Head, 2019; O’Brien and Sygna, 2013; Feola, 2015; IPCC, 2012). Such a transformation is in line with the IPCC (2012: 436) vision of fundamental transformation as a system change including governance, social norms, and social life reconfigurations.

To curb the negative effects of consumption, new ways of collaborative consumption have emerged where goods, services and idle resources are made available in a larger community setting (Wahlen and Laamanen, 2017; Wilhite, 2016). The main emphasis is on using rather than owning, to prolong and optimise product and resource use. In general, collaborative consumption allows consumers to both obtain and provide resources or services through direct interaction with other consumers or through a mediator (Ertz et al., 2016; see also Belk, 2014). It is the element of active participation where consumers are able to perform several roles, engaging in embedded entrepreneurship and collaborating to produce and access resources, that distinguishes collaborative consumption from conventional consumption (Myrtz, Durif and Arcand 2019). Much of the literature has focused on new technologies as enablers to promote such consumption (Belk 2014), but collaborative consumption also entails characteristics of community as it requires a symbiotic interdependence between those who engage in this practice (see also Felson and Spaeth 1978). One form of collaborative consumption is the food production and consumption system of community-supported agriculture (CSA). In CSA, consumers pay for membership in a CSA farm in return for a certain share of the produce. They might harvest the share themselves or pick up food boxes at collection points at regular intervals. The risk of crop failure is then distributed between the farmer and the CSA members. Many CSA farms require members to work a certain number of hours on the farm as part of their payment. Some farms also invite members to training courses to learn more about farming practices and preservation methods (Cox et al., 2008). The farmland is thus a place that combines distribution of risk, leisure, education and social networks for the members, as well as a place of food production. The ‘sharing and collaborative’ aspect of CSA may thus take the form of a social action to challenge unsustainable consumption patterns derived from a political economy of continued growth, by emphasising sharing over private ownership, and frugality over maximising profit accumulation through increased consumption and production (Wilhite 2016).

Food consumption is not only a question of a rationalist decision, but a result of several components including the physical environment (availability and affordability) as well as the meaning, routines, knowledge and norms attributed to food. Eating relates to the context of place and relationships with producers, markets and people. People are “eating locally in a particular place, and food has become a key part of the narrative that establishes their connections to that place” (Schnell, 2013: 626). This motivates the application of social practice theory to study how people make sense of and value food habits after engaging in collaborative consumption in two well-established Norwegian CSA farms. This knowledge is helpful in understanding pro-environmental transformation of food practices as a complex set of factors. Practice theory enables attention to social mediating factors of food consumption, argued by Mattioni et al. (2020), to be largely overlooked in the literature. In contrast to conventional individualistic and rationalist approaches, our study suggests that there is no simple individualised and linear path of transformation. People join the collaborative consumption scheme
of community-supported agriculture to push for social transformation. Simultaneously, their experiences and resources from CSA influence a reorientation of values and opportunities towards sustainable lifestyles. A wider understanding of transformation also enables the discovery of more subtle and mundane changes that are relevant to a low-carbon transformation. Practices are moreover embedded in social and political economy structures that also influence opportunities of future practices and the opportunities for individuals to change their habits.

The next section investigates the theoretical approaches of previous CSA literature and what social practice theory offers. The third section details the methodological approach applied in this study. The fourth section reports the findings on people’s motivation to join CSA, as well as changes in their food practices after joining, and the internalisation of new norms and behaviours. The article concludes with a discussion of how social practice theory offers conceptual insight into the ways in which people’s experience with collaborative consumption and CSA can be viewed as a pathway for transformation.

Understanding food consumption transformation through practice theory

As Wilhite (2016) argues, there is a link between neo-liberal capitalist emphasis on private ownership and economic growth, and the acceleration of consumption (and thus production) and ‘high-energy habits’ such as prevalence of individualised transport (private car), increasingly larger homes and rapid renewal of consumer items. A successful transformation thus needs to go ‘deeper’ than mechanistic instruments like taxes and subsidies, by addressing people’s understanding of quality of life (Abson et al., 2017; Pelling, 2011; Meadows, 1990). CSA is part of the alternative food movement and incorporates several aspects of ‘deep’ transformation. Originating in Japan in the 1970s, it was pioneered by food farmers and consumers who called into question the modernisation of agriculture with monoculture, pesticide use and deprivation of rural livelihoods (Kondoh, 2015). In the Norwegian context, farming has been strongly linked to collective initiatives, industrialisation and significant political support since the 1930s, but is now increasingly regulated by neoliberal international treaties and the growing power of large retail chains (Bjørkhaug, Almås and Vik 2015). As in Japan, Norway has seen an increase in alternative food movements such as CSA. Today CSA continues to be disconnected from commercial agriculture production and aligned with alternative ideologies that emphasise a strong producer and consumer link (Watkins 2019; Thomson and Coskuner-Balli 2007). This link has been argued to provide significant potential to transform participants from passive consumers into informed citizens who engage in community-building and political discussions concerning food production (van Kraalingen 2019; Cox et al. 2016 Turner, 2011 Cone and Myhre, 2000). CSA has been identified as ‘caring practice’ where members can care for people and places (Goodman et al., 2010; Popke 2006; Wells and Gradwell 2001), and where eating locally is part of a narrative connected to place and place identity (Schnell, 2013). However, several authors have criticised the CSA model’s ability to deliver on economic, social and environmental sustainability (Pole and Grey 2013; Goodman et al., 2010; Feagan 2007, McCarthy 2006). Some parts of this critique might be argued to be part of an oversimplified understanding of eating locally reduced to, for instance, a question of food miles and arguments of discriminating against free trade (Schnell, 2013).

Despite CSA’s roots in visions of transformation, most research on CSA and consumer behaviour change has focused on narrow indicators such as recruitment, retention and diet changes from a health perspective. The literature finds that people are motivated to join CSA to gain access to fresh nutritious produce and locally sourced food (Pole and Gray 2013; Lang 2010; Ostrom 2007), to be more environment-friendly, and to support local farmers (Cox et al. 2016; Cox et al. 2008; Ostrom 2007). There are consistent findings that CSA membership results in consumption of more of a wider variety of vegetables (Vasquez et al. 2016; Hanson et al. 2017; Wilkins et al. 2015; Curtis et al. 2013; Cohen et al. 2012). However, the turnover rate at CSA farms is quite high (Vasquez et al. 2016; Perez et al. 2003), mainly because members find that the yield
offers too little variety. Studies furthermore show that CSA members often represent a higher educated, western, female, middle- to upper-income segment of the population (Chen et al., 2017; Vasquez et al. 2016; Lang, 2010; Schnell, 2007; Perez et al. 2003). A common finding in the existing literature on CSA membership is people’s individualistic and rational approach, with a wish to gain access to quality food and/or to use their consumer power to express their own political and moral concerns as individuals (Dobernig and Stagl, 2015, Haenfler et al., 2012). This approach assumes a linear and individualised path of transformation that overlooks the conceptual and fine-grained understanding of how experiences of CSA as collaborative consumption can promote pro-environmental behavioural change, and how such changes relate to the wider low-carbon transformation. Food consumption needs to be understood as an interwoven process between the individual and the community (Schnell, 2013), taking into account the social and material contexts shaping individual behaviour (Mattioni et al., 2020). As Brown and Miller (2008) conclude in their study, farmers markets and CSAs might be a cornerstone in community development and local food systems.

Wilhite (2016) argues that, to produce knowledge on low-carbon transformation, we need to apply theories that can capture the “interconnectedness of household habits and the political economy” (Wilhite, 2016: 21). Introducing a social practice approach provides an alternative to methodological individualism (where individuals are seen as sovereign in their own life and decisions) and brings new knowledge into the field (Mattioni et al, 2020; Warde, 2014). The ‘practice turn’ in consumption has moreover challenged the predominant focus on culture and re-introduced aspects of materiality and affordances of objects relevant to understanding the environmental effects of consumption (Warde 2014). This article uses social practice theory to understand how routine actions such as food consumption are formed along multiple dimensions (e.g. Shove and Pantzar, 2012), including aspects of social relations, place (e.g. culture), and materiality (e.g. new technological innovations) (Wilhite, 2016: 23). Finally, social practice theory introduces a focus on doing versus thinking, and attention to routine and practical competences brings attention to everyday-life practices like eating as a routinised behaviour made important by bodily habits and social conventions (Warde, 2014; Wilk, 2004).

Shove, Pantzar and Watson (2012) have suggested that three main elements can be addressed to guide empirical investigations of practices: (1) materials, including the use of tools, technologies and equipment; (2) meaning, referring to the particular idea/image that is related to a particular activity; and (3) competence, that is, the skills (learning) which are involved with an activity. Practices are thus characterised by the linkages that practitioners make or break between various pre-existing elements within these three categories. A change in practice therefore involves modifying a combination of symbolic and material ingredients, and of competence and knowledge (Shove, Pantzar and Watson, 2012). Practices evolve in, and are a result of, different social fields, such as community, family and work, where people have certain resources and positions, and abide by common norms (Bourdieu, 1977). In sum, practices are integral to social order, they are both drivers and results of social and collective learning, which implies that social power relations influence acceptable conduct (Warde, 2014). In terms of a wider political economy perspective, the aspect of performance in practices (e.g. practitioners strive to uphold relative standards or excellence) means that practices generate certain wants, often resolved through consumption, which in turn fosters a capitalist approach to increased economic growth. However, practices may also be interlinked with new ways of consuming that are more in line with sharing and circular economies aimed at reducing environmental footprints.

**Methods**

**Data collection**

This study explores qualitative aspects of collaborative consumption in CSA to understand people’s motives and practices, and to identify how they make sense of and value food after engaging in collaborative consumption through CSA. This knowledge is helpful in understanding the complex processes at work to
promote sustainable food habits and low-carbon transformation on individual and community levels. To this end, this study has applied the ethnographic methods of in-depth interviews and participant observation. Ethnographic methods are well-suited to gain deep and detailed understanding of how people bring meaning to everyday activities and how this influences decisions, practices and change.

An important part of the research design was to interview new members of the Virgenes and Øverland farms in the winter of 2018 and then to re-interview them in the winter of 2019 after they had participated for a year and experienced one growing cycle. The first interviews focused on the informants’ motivations for becoming members and their practices concerning eating habits, food waste and transport, as well as norms and awareness concerning climate and environmental issues. The second interview focused on their experiences after one year of membership and allowed us to compare any self-reported changes in eating practices and linkages to changes in skills, norms and meaning attributed to food consumption and the environment. We also explored whether their change of food consumption practices and values had influenced pro-environmental changes to other practices in their life. Two female informants had been members for several years and provided a long-term perspective.

We recruited 25 informants for the first round of interviews and 20 of them were re-interviewed in the second round. Most interviews lasted 90 minutes and were conducted in the informants’ homes to get a sense of household composition and lifestyle/values. The sample of informants varied in age, family situation and socio-economic status. Some came from middle-class families living in detached houses, while some were single with low-income jobs or were living on disability benefits. In terms of ethnicity, the sample was homogenous, as most of the informants were Norwegian. We also interviewed the managers of both farms and one of the gardeners at Øverland. For an overview of the informants, see the table below.

Table 1: Overview of informants

<table>
<thead>
<tr>
<th>Informant and age</th>
<th>Farm</th>
<th>Household composition</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A woman (65)</td>
<td>Virgenes</td>
<td>Couple with adult children</td>
<td>Retired</td>
</tr>
<tr>
<td>B woman (47)</td>
<td>Virgenes</td>
<td>Couple with school-age children</td>
<td>Energy sector</td>
</tr>
<tr>
<td>C woman*</td>
<td>Virgenes</td>
<td>Single</td>
<td>Disability benefit</td>
</tr>
<tr>
<td>D man (50)</td>
<td>Virgenes</td>
<td>Couple with teenage children</td>
<td>Researcher</td>
</tr>
<tr>
<td>E man (50)</td>
<td>Virgenes</td>
<td>Single with adult children</td>
<td>Alternative health therapist</td>
</tr>
<tr>
<td>F woman (25-30)</td>
<td>Virgenes</td>
<td>Couple</td>
<td>Researcher</td>
</tr>
<tr>
<td>G woman (45) and son (12)</td>
<td>Øverland</td>
<td>Couple with two school-age children</td>
<td>IT sector</td>
</tr>
<tr>
<td>H woman (60)</td>
<td>Virgenes</td>
<td>Couple</td>
<td>Disability benefit</td>
</tr>
<tr>
<td>I Man</td>
<td>Virgenes</td>
<td>Single with adult children</td>
<td>Writer/editor</td>
</tr>
<tr>
<td>J woman (40)</td>
<td>Virgenes</td>
<td>Couple with teenage and school-age children</td>
<td>Health sector</td>
</tr>
<tr>
<td>K man (30)</td>
<td>Virgenes</td>
<td>Single</td>
<td>Musician/teacher</td>
</tr>
<tr>
<td>L woman (34)</td>
<td>Virgenes</td>
<td>Single</td>
<td>Researcher</td>
</tr>
<tr>
<td>M woman (60)</td>
<td>Virgenes</td>
<td>Couple with adult children</td>
<td>Sales/retail</td>
</tr>
<tr>
<td>N man (45)</td>
<td>Virgenes</td>
<td>Couple with school-age children</td>
<td>Media</td>
</tr>
<tr>
<td>O woman (34)</td>
<td>Virgenes</td>
<td>Couple with a small child</td>
<td>Engineering</td>
</tr>
<tr>
<td>P woman (50)</td>
<td>Øverland</td>
<td>Single</td>
<td>Disability benefit</td>
</tr>
<tr>
<td>Q woman (60)</td>
<td>Øverland</td>
<td>Single with adult children</td>
<td>Researcher</td>
</tr>
<tr>
<td>S woman (37) and man (50)*</td>
<td>Øverland</td>
<td>Couple with small children</td>
<td>Researchers</td>
</tr>
<tr>
<td>T woman (30)</td>
<td>Øverland</td>
<td>Couple with young children</td>
<td>Health sector</td>
</tr>
<tr>
<td>U woman (40)*</td>
<td>Virgenes</td>
<td>Single with adult child</td>
<td>Disability benefit</td>
</tr>
<tr>
<td>V woman (60)</td>
<td>Øverland</td>
<td>Single with adult children</td>
<td>Teacher</td>
</tr>
</tbody>
</table>
In addition to the interviews, observation was an important part of the methodology. The first author acquired the role of participant observer by taking membership at a CSA farm with similar structure as Øverland, which enabled a deeper understanding of the benefits and challenges of being a newcomer to CSA participation and managing changes to the acquisition and preparation of food in a busy family setting. The research findings are however based on our interviews with the informants, while the participant observation provides first-hand experience used to explore topics in the interviews. The research team made visits to the farms during particular events such as information meetings for new members, and monitored the farms’ open Facebook groups to understand the processes of information and knowledge exchange that took place. The study is also part of a larger study on the sharing economy that includes co-production of knowledge with relevant stakeholders (Pohl 2011) such as the member association Oikos Norway. Oikos Norway coordinates the CSA network in Norway and provides assistance to CSA farms on issues of organisation, communication, and so on. Oikos Norway provided valuable insight to the study on CSA farmers’ experience of recruitment and retention of members. During the recruitment and interviews, all the informants were provided with information on the interview process, on their rights as research participants, and on data management plans.

Research sites
We selected Øverland and Virgenes CSA farms as research sites because both are well established and quite well-known in southwestern Norway. All the farms offer their members a portion of the yield in return for a fixed annual fee. Another selection criterion was the fact that the two farms have different rationales and institutional setups, which enabled us to review how this influenced informants’ motivations, experiences and changes in practices. For details of the farms, see the table below.

<table>
<thead>
<tr>
<th>Farm</th>
<th>Type of management</th>
<th>Type of agriculture</th>
<th>Location</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Øverland</td>
<td>Member-driven, non-profit</td>
<td>Vegetables, herbs, berries, nuts, honey, eggs</td>
<td>Akershus county</td>
<td>Interviews and observation</td>
</tr>
<tr>
<td>Virgenes</td>
<td>Farmer-driven, for-profit</td>
<td>Swine, cattle, vegetables, herbs, eggs</td>
<td>Vestfold county</td>
<td>Interviews and observation</td>
</tr>
</tbody>
</table>

Øverland farm, established in 2005, was the first CSA farm in Norway. It has about 500 members (including children, who are non-paying members). The farm is run as a non-profit organisation and employs a farm manager and a few gardeners (one full-time). The organisation rents the land that is cultivated, and the members are included in most of the work and decision-making processes. Virgenes farm is an established farm that has been run by the same family for generations. The present farm manager converted to CSA to produce food according to organic principles and to diversify his income. The farm provides an income for the farmer and his family and employs a full-time gardener. In addition, the farm attracts volunteers who stay and work on the farm for extended periods. Virgenes farm has about 300 members, but due to its more remote location, most members receive their share of the produce at collection points in Oslo or at other locations in the greater Oslo area. The members can choose whether they want to contribute with voluntary labour, and most do not. Decisions on how the farm is run are mostly made by the farmer and the gardener.
Results and findings

This section reports the informants’ motivations prior to joining CSA and the changes in food consumption practices after being CSA members for one year. It traces how the experience of CSA has impacted on new materialities, competences and internalisation of meanings concerning food practices that result in more pro-environmental behaviour change, as well as factors that make such change challenging.

Starting as a CSA member: protesting against conventional food production

Our informants’ main motivation to join a CSA farm was a desire to change the way they consumed food and the way their food was produced. All the informants cited scepticism towards conventional farming and food production systems as their reason for joining CSA. Although not all informants placed the same emphasis on their critical perspectives, most described the current system as being dominated by ‘big players’ who sought profit at the expense of sustainability and thus conflicted with their ethical and ideological convictions. The view of conventional food production as unsustainable was voiced in terms of being economically unsustainable for the farmers, depleting nature’s resources, and reducing animal welfare by using harmful farming techniques. Virgenes’ emphasis on animal welfare and provision of meat (which is not common in Norwegian CSA) was prevalent among Virgenes members. As illustrated by the woman informant below:

Animal welfare is important to me because I believe that all living individuals have a right to have a good life, where they can run around and play and still become good food. I’m also concerned with intelligent management of the soil itself. When I shop for food, I don’t know how the food was produced or whether or not aspects like these were considered. Virgenes is well thought through and considerate in that respect, and they communicate the values very clearly. (Informant L)

Several informants perceived conventional food production as economically unsustainable for farmers because market economy approaches favour a system where production costs must be kept low. Again, Virgenes was seen as attractive because being a member allowed informants to support the struggling farmers directly, circumventing expensive intermediaries and big food companies:

And I’ve thought about all the intermediaries, that the farmer is poorly paid. I had a neighbour many years ago. His parents were sheep farmers. But they could only do it as a hobby almost, because the pay was so bad. And there’s the appeal of buying directly from the farmer. (Informant B)

The above informant lives with her family in central Oslo and had joined CSA as a family project since she felt that families living in an urban environment become disconnected from food production and farmer’s conditions. For the Øverland members, solidarity was voiced in terms of preserving small-scale organic farming as this farm is a non-profit cooperative.

Several also pointed to unsustainability on the global scale, where food production risks being moved to poorly paid farmers in other countries, often in the global South. The informant below, a politically engaged young man, saw his role as a CSA member as basis for an alternative to capitalist-based food production:

I don’t think we can run food production based on principles and global ideas about comparative advantages, where those who produce most effectively should do it. It has to do with protecting soil in lots of places. (Informant K)
For many informants this was interlinked with ideas of Norwegian food security as well as solidarity with Norwegian farmers. These members also actively exercised their consumer power by buying only locally sourced Norwegian food in the shops.

The perception of the food production networks in Norway as being dominated by profit-seeking big players also influenced the informants’ perception of food quality and the depletion of natural resources. A small majority of our informants reported that the organic food production in Øverland and Virgenes was one of their major motivations for joining. The statement below from a natural scientist is illustrative:

*First and foremost, I think that running production in a way that doesn’t impoverish the soil but that instead cultivates it so that it becomes even better than when they started; that we have different species that enrich the soil rather than deplete it, but also that we don’t use loads of pesticides that can be harmful to us or to other organisms. In the long term it makes sense to run production in ways other than just to earn as much money as possible, but then we need to run it so that we earn as many resources as possible overall.* (Informant L)

In addition, several informants joined CSA for health reasons. They valued the access to organically produced, fresh, nutritious, and high-quality vegetables and meat, which they felt were lacking in conventional food production. Seven of the informants at Virgenes had been advised by alternative health therapists to join this farm because the food was beneficial to their dietary requirements. The absence of pesticides and the attention to animal welfare were considered to improve nutrition uptake.

Another frequently mentioned motivation was the opportunity to learn by participating in the food production. This points to the importance of community to establish and change practices (see Warde, 2014). Many informants wanted to gain knowledge about new vegetables, recipes and cultivation techniques. And several wanted to engage their children and/or grandchildren in their activities at the farm, to pass on important knowledge about sustainable food production to the next generation. As expressed by the previously mentioned mother who wanted to repair the disconnect she felt her family had towards food production in their urban living environment:

*Well, it’s because I think that being on the farm was a positive thing for me and the kids. I found it enjoyable, and it’s easier to do it when you actually have to go there to work. Because I want to go there, and it’s a great family project. Growing up in Oslo and never being on a farm and witnessing farming life – I think that seeing potatoes coming out of the soil is a positive thing for children to experience.* (Informant B)

Despite the emphasis on learning, the community aspect in terms of socialising with other members and working together in collective action to change food production was the least reported motivation of the informants. This has also been found in other studies (Lang 2010).

As shown above, the appeal of CSA stems from an experience and perception of mismatch between existing practices on the one hand and, on the other, new norms of conduct from exogenous forces, such as the discourse and effects of global climate change and criticism of the current food production system. Using their consumer power and joining CSA can thus be understood as a way to re-align food habits with internalised norms and values of food production reflecting animal welfare, ecological cultivation, locality and/or Norwegian food security. How this effected a change in practices towards pro-environmental behaviour is discussed in the next sections.
In the interviews, to understand whether collaborative consumption in the form of CSA membership resulted in a shift towards more sustainable consumption, we inquired about self-reported food habits prior to becoming a member and after being a member for a year. The biggest change in food practices reported by most of the informants was how they ate and planned meals in line with the production cycle of the CSA farms. This change was found for both farms. Due to the cold climate in Norway, there is only one growth cycle a year, and the yield is ready from July to October, depending on what is grown. Root vegetables and different types of cabbage are usually in abundance in the autumn (since they tolerate lower temperatures) while lettuce, tomato and squash are ready earlier in the season. Having certain types of vegetables at different times means that one needs to conserve food for it to last. Consumers are moreover used to having exotic vegetables that do not grow well in Norway available in the shops all year round (e.g. avocado, aubergine, paprika, etc.). Eating seasonal food requires a considerable shift of practices in the home. Informant O’s statement illustrates this well:

We have shops so close to home that we can shop when we need to, so getting [produce from the farm] for two weeks at a time means you have to start planning a lot more how you’re going to use all these vegetables… and that takes time. (Informant O)

Due to severe health problems, she had previously made radical changes to her own diet as well as her partner’s and her toddler’s. She had therefore been eating organic food for several years and made all meals from unprocessed food. She also went to lengths to acquire food items not generally eaten in Norway, such as offal (kidney, liver, heart), to enhance nutrient uptake. Switching to seasonal eating was however a new aspect of her food practices. As described by another informant below, this also required knowledge on preservation of food:

I received the first deliveries in January and February. At that time there was a metre of snow on the ground and the earth was frozen, so few vegetables had been stored and I received a lot of root vegetables. (Laughs). So, I thought I have to eat them and use them to make things and not go out and buy other things, so I’ve become really good at making vegetable stews with root vegetables. And I received lots of cabbage, so I bought fermentation jars and threw myself into fermentation. (Informant L)

For most of the informants, the shift to eating seasonal food was seen as a valuable part of the process of living more sustainably, but it was also a challenging one. As illustrated above, changing to eating seasonally requires a simultaneous change in people’s skills, material resources and internalisation of values. CSA provides new capital in the form of social networks, informal and formal knowledge sharing that enable skills in using new food items and new recipes, and access to (the right) food and to a community where certain norms and values are produced and reproduced. However, the experiences of learning after a year’s participation were mixed. On the one hand, several members expressed some disappointment as they had hoped the farms would provide more information on how to prepare the food. The farms have Facebook groups partly dedicated to this purpose, but only a few members are active in sharing this kind of information. On the other hand, some of the informants felt that being a CSA member had provided them with an inspiring social space for recreation and shared understanding. This was especially prevalent among women who lived alone and had made a routine of engaging in the farm work at Øverland.

Being a CSA member in the CSA social field may, however, be in conflict with other social fields the informants engage in, such as family life and work life. Their capacity for change was also linked to political economy aspects of being a productive and cost-efficient citizen in the neo-liberal system. Some informants dropped out due to the time required to cook differently and plan meals, or to travel to the farm and contribute by working there. Several informants also revealed that seasonal eating was particularly challenging to implement.
if partners or children did not share their motivation for CSA or for changing their food habits. For example, the Mexican taco dinner has become a common Friday tradition in Norwegian homes, and taco dinner kits are stocked in all grocery stores. The vegetables commonly used (avocado, maize, tomatoes, salad, etc.) are either not produced in Norway or are available for only a short period in the summer. To ‘succeed’ with CSA in the family setting they had to strike a balance between ‘traditional’ eating and seasonal eating. This is illustrated by the mother who engaged in CSA as a family project:

I don’t stop buying lettuce just because I get vegetables from Virgenes. I’m a bit conscious about the fact that this is something I have chosen, and I don’t want the others to lose interest, so we eat something else. So the Friday-night taco dinner is still a ritual, and little of what we get from Virgenes fits with tacos. He [husband] has resigned himself to it. I think we can say that he’s on the sidelines, but I think he sees the value, especially in the autumn when we get a lot of strange vegetables. And we have a son who loves cavalo nero. He doesn’t want potatoes and normal food, but freshly fried cavalo nero. (Informant B)

Like several of the informants, she was the driver of the CSA engagement in the household, and had spent considerable energy in getting her husband ‘on-board’.

Another important aspect of the informants’ food habits that we explored was whether being engaged in CSA changed their practices regarding food waste. All the informants stated that they always tried to keep their food waste to a minimum, in line with general norms and discourse in Norway. However, several pointed out that their volume of food waste had increased from peeling and cutting up vegetables, while their volume of waste from plastic and paper food packaging had noticeably decreased.\(^1\) Several informants also reported a change in the meaning attributed to food and subsequently food waste after engaging directly in farm work and harvesting. As they appreciated how much time, effort and resources had been put into making the food, they felt it was much harder to throw food away or even eat takeaway meals. At Øverland, participating in farm work was compulsory, whereas at Virgenes it was optional to pay a slightly higher fee to avoid the compulsory farm work. As most of the members interviewed from Virgenes did not participate in the farm work, this finding was most prevalent among the informants associated with Øverland. This indicates a change in practice. As illustrated by an informant living alone who frequently used to eat take-aways:

You can get fed up and just feel like ordering a burger, but then you see how hard they work on the farm and I know I have vegetables lying at home that will go off if they’re not eaten. That bothers me a bit and preys on my conscience, so I have to go home and actually prepare a dinner. (Informant L)

Several of the informants stated that their experience from CSA membership over a year reinforced their motivation to live more sustainably and reduce their climate emissions. They ate vegetarian or little meat, minimised food waste, used public transport or carpools, and tried to keep their consumption to a minimum.

I shop less now, yes. Don’t have any figures or a proper overview of how much. I do appreciate the seasonal variations and have become more aware of them. And perhaps try harder to be more conscious of food that travels long distances or that is resource intensive. (Informant K)

In addition to seasonal eating, two of the informants had made more radical changes and shifted from eating meat to eating only vegetarian after joining CSA. However, two informants reported eating more meat as a direct result of how Virgenes farm provided meat produced according to their values:

\(^1\) Food and plastic waste are placed in different bags for waste management in the Oslo area, where most of the informants live. The food waste is used for biogas and biofertilizer and the plastic is reused.
Well, I’ve had a two-year period of eating very little meat because if I first decide to eat meat, it must come from a farm where I know that animal welfare is important. And I can’t see that any of the meat you find in regular grocery stores guarantees that. So, the meat I want to eat is often expensive and not readily available. Now I receive deliveries by the kilo, so I eat it (Informant L).

A superficial examination of everyday food consumption would hardly reveal a major change in food consumption, but rather, a re-adjustment of practices existing before joining CSA. However, the findings display small, subtle and mundane changes in practices where everyday life is oriented more towards what is in season at the farms. Most of the informants and their families changed their food practices to eat seasonally, increased the variety and amounts of vegetables in their diet, and spent more time planning meals. This tendency was found among members of both farms and seemed to be key to retaining CSA membership. Eating seasonal food can be interpreted as a form of counter-hegemony to capitalism’s imperatives to increase the rate and tempo of consumption. CSA encourage a form of frugality by meeting needs (sufficiency) over creating new needs and desires, through sticking to the limited farm produce rather than the abundance in the shops. It also challenges the individualised nature of consumption in the rational choice perspective by sharing risk, knowledge, and labour instead of convenience and private ownership. In this process, the informants began questioning conventional food production and their role in it by asking themselves: who should profit most from food production? Who has legitimacy in deciding how food should be grown? How should uneven distribution of power within food production networks be resolved? And what can I as a consumer/individual do to influence food production in a more sustainable way? As discussed in the next section, the re-adjustment of practices involves a reconfiguration of what is seen as quality of life, which is at odds with the ideological framings of capitalist-based food production and consumption.

Transformation of values through CSA engagement
As discussed above, the motivations to join CSA tended towards a desire for more sustainable forms of food production and personal lifestyle. In general, as most of the informants had joined the CSA as part of an ongoing process to live sustainably for health and/or environmental reasons, it reproduced and reinforced their existing and internalised norms and values. A mother who had introduced CSA farming as a family bonding project for herself and her teenage son commented:

I feel it’s just reinforced what we already had, really. I’ve long been concerned with protecting the earth and eating healthy and those kinds of things. And it’s become even more important now. (Informant G)

As noted above, CSA also provides capital to live by these internalised values as it provides access to the right resources: food produced organically and with animal welfare safeguarded; cultural capital and identity as CSA member; and skills through informal knowledge sharing within the CSA group. CSA thereby also plays a part in providing a social construction of new meaning to food consumption. This is illustrated by the mother who engaged in CSA to enable her family to connect with food production:

The children have been totally brainwashed, because here at home now we eat either happy eggs [from Virgenes] or sad eggs [from the shop]. And the vegetables are happy potatoes from Virgenes farm. [Laughs]. (Informant B)

Here the difference of the farms also came into play as the ideologies of Virgenes and Øverland influenced their respective members’ internalisation of norms. Virgenes farm emphasises animal welfare and soil protection, as well as a sharp critique of conventional food production in its communication to members and the outside world. It has about 10,000 followers on Facebook and publishes new posts several times a week. Many of the
posts also highlight linkages between health benefits and more diversified and organic cultivation. However, most Virgenes members receive their food via collection points and have never visited the farm. Many of them were dissatisfied with how the food collection system was organised, as they felt they received little information and were given short notice to pick up the food boxes. They saw themselves as consumers who had bought a product that was not delivered in the way they expected.

In contrast to the drop-off point system, the mandatory participation of members at Øverland (e.g. planting, weeding and harvesting) resulted in members experiencing it to be ‘far more difficult’ to waste food. Øverland communicates less with the outside world (both farms have long waiting lists, so they do not need to market themselves extensively), but the requirement to contribute labour and the fact that the farm is member-driven are part of a strategy to engage members in the CSA community in order to raise awareness about sustainable food production and consumption. This reveals how the informants are crossing points of different practices (Warde 2005), and Øverland’s practice of engaging the members establishes links to the members food practices within the social field of the household.

For our informants, engaging directly with the farm work, either at Øverland or, for those who did so, at Virgenes, also provided a better understanding of how risk was distributed between farmers and consumers in the CSA system, and of the challenges in food production. As a couple living in central Oslo who had made a few visits to help out at Virgenes, in addition to picking up the food boxes, commented:

I understood more about it when I was there [Virgenes], that this is really a demanding thing to administrate. When we go shopping we’re used to just topping up [with items we need], but it doesn’t work that way here [at Virgenes]. It’s more about what the weather is doing and all that (Informant M).

Our interviews coincided with a particularly long drought (summer of 2018) that hit Norwegian farmers hard. Virgenes and Øverland (and most other CSA farms) had to ask its members for extra help to safeguard the crops. The members that actively participated thus experienced first-hand the challenges and gained an understanding of why the yield was reduced. This indicates that collaboration and sharing have an impact on the norms and values underpinning the informants’ food practices. It also highlights how change is not a linear process; rather, people join CSA to exert their consumer power to push for social transformation. Their experiences as CSA members simultaneously influence a reorientation of values because they afford opportunities for people to reflect on and question their lifestyle, as well as providing the resources to implement change. Interestingly, the organisational set-ups of the two farms, where one is a cooperative that engages members, and the other one is primarily a system were members are ‘co-owners’ of the produce, lead to some different outcomes regarding changing norms and values. The difference between being for-profit or non-profit seemed to have little consequence in terms of reconfiguring new meanings and changes of practices, for the key dimension was the active engagement of the members providing direct experience with farming.

For a few of the informants, being part of a CSA also reinforced a deeper value change that led to more radical changes in practices. As noted above, two of the informants had chosen to become vegetarian. But some had also been inspired to make choices in other areas of consumption. Two families with small children had chosen to use the train when making regular visits to extended family, thus increasing travel time from 1.5 to 7.5 hours. Another informant had chosen to avoid flying altogether:

Yes, I’ve cut down a lot on travelling. I’m more conscious about what I do and why I do it. Last year I went on holiday to Portugal travelling only by train, and it was very enjoyable. Many of these changes are gradual processes that I had started before I became a [CSA] member, but
I’m becoming more and more conscious, and things are becoming increasingly easier to do. My attitude towards things – we buy so many things and junk that serve no purpose. Before I buy something now, I have to think carefully about whether I actually need it or whether it’s just a whim (Informant L).

Though ‘flight shame’ has become a concept in the Norwegian public debate, the informants linked their change of practice to a strengthening of their environmental values through CSA participation.

It is however worth noting that the change of travel practices, as in the case of food habits, were limited by everyday challenges of time and energy. All, except three of the informants, used their private cars to get to the farms. ‘Last mile’ transport is important for the environmental sustainability of CSAs, as grocery transportation systems are often more efficient and thus less emissions-intensive than private transport to and from farms (see Coley, Howard and Winter 2009). As the farm manager at Øverland put it: ‘We’d like to see more bikes out here in our car park’. Øverland farm encourages its member to reduce their food waste, but there was no pressure on members to change their mode of transport, as travelling by public transport or bicycle to Øverland takes about one hour from central Oslo. To get to Virgenes from Oslo requires about four hours and three different means of public transport. A trip from the nearest town Larvik takes about one hour. Together with lack of time, travel distance was one of the major reasons given for discontinuing membership.

As shown above, the experience of being a CSA member has provided both subtle and mundane changes in routinised food consumption behaviours. The practices in themselves are not fundamentally transformed, but the way they are approached, understood and experienced has changed, along with the associated interactions and identities that the practices sustain. Changes in norms and values underpinning food consumption practices have in some cases also led to changes in other types of consumption. Participating in food production through collaborative consumption (engaging in the production itself or sharing risks with the farmer) and eating seasonal food played an important part in this process. Several informants constructed meaning in eating seasonal food as a symbol of being more aligned with nature’s principles and in harmony with environmental values. These changes were not linear, but rather circular, entailing gradual shifts in several domains to establish an effect on practice. But, as noted above, several of the desired changes were severely hampered by expectations of productivity (time-squeeze) and social relations.

**Discussion**

This article has used social practice theory to explore how new CSA members make sense of and value food habits, and whether this has influenced their food practices. The findings of this study provide a deeper understanding of why people are motivated to become CSA members. They also show how this affects changes in food consumption practices that may be seen as a steppingstone towards pro-environmental behaviours in line with a low-carbon society.

Social practice theory provides a conceptualisation of people’s motives to use their consumer power to join CSA as a means to break with or re-align their practices with the expectations of their social fields. The discourse and effects of global climate change is one dimension that induces a shift in how people judge and give meaning to their everyday practices. Another dimension brought up by the informants is criticism of the market economy and capitalist food production as being unsustainable for nature, animal welfare, national food security and farmers’ livelihood. Hence, a decision to join CSA is not only a result of attention to one’s own well-being and convenience, but also belongs to a more complex decision process including environmental considerations, solidarity and connections to the farmer (Schnell 2013).
Understanding low-carbon food consumption transformation through social practice theory

Shove et al. (2012) focus on the interlinking dimensions of materiality, competence and meaning, which provides insight into how CSA membership establishes and alters practices. Materialities such as access to food produced according to the informant’s values, to the opportunity to cultivate and harvest directly, and to social media platforms for knowledge exchange are important resources in this regard. Immaterial capital from being a CSA member, such as skills, social networks and cultural capital, also influence people’s ability to transform their practices and the social norms that drive and reproduce these practices. The majority of informants felt they had acquired the opportunity to live according to their values supporting sustainability. The changes in practices reported were a re-alignment of existing practices, such as eating more vegetables, eating more in-season and locally sourced food, planning meals differently, and shopping less during the growing season. Only a few had made a more radical break with practices: becoming vegetarian, embracing time-consuming food preservation techniques, reducing overall consumption, and choosing environmentally friendly forms of long-distance travel.

Using the lens of social practice theory also reveals how the subtle and mundane changes in everyday practices of the majority are linked to internalisation of new norms and values. These are fundamental to a deep transformation that gives new meaning to quality of life (Mattioni et al., 2020; Warde, 2014; O’Brien and Sygna, 2013). Eating seasonal food can be interpreted as a form of counter-hegemony to capitalism’s imperatives by eating what is available from the farm rather than from the abundance in the shops, and by sharing risks, knowledge, and labour instead of prioritising individual ownership and convenience. CSA also implies a system change with new value-chains (alternative food networks) since it operates outside the market, and a post-capitalist rationale (sufficiency vs. creating new demand and sharing vs. individualisation). The experience of engaging in CSA strengthens this process by influencing individuals’ reflexive consideration of their own everyday habits and their role in the food production system in Norway. In particular, the informants who engaged in the food production themselves, by working on the farm and doing manual harvesting, seem to have changed their awareness of food as a valuable resource and accordingly to have replaced old eating habits (such as eating take-aways or throwing away food).

This study also points to the challenges of making changes in practices that are in line with a low-carbon society. As Wilhite argues, for collaborative consumption to be a grassroot pathway for transforming the political economy, it would need to be upscaled to the mainstream society where participants engage in it together as a social movement for collective action (Wilhite 2016). This would require that collaborative consumption tie in not only with the existing symbolism (often focused on comfort, freedom, and ownership), but also with current social trends (declining importance of ownership amongst young adults) (Leismann et al. 2013). The informants’ main difficulty (including those that quit their membership) was to balance the expectations of different social fields in busy work-family-life schedules (e.g. fitting in travel to the farms, planning and cooking meals) and family members’ desire to reproduce food ‘traditions’. To professionalise and respond to demand, CSA farms may need to strike a balance to secure members’ convenience, for instance by removing mandatory work contribution and delivering food to drop-off points closer to the members’ location. This was found in this study to be an important dimension in engaging people in a transition towards more sustainable practices (see also van Kralingen 2019; Lang 2010). Furthermore, as the informants operate within the parameters of a market economy rooted in ideas of individualised consumption and not in opposition to it, their role as CSA members was understood as one of economic actors, not political activists. This was accentuated by how our informants placed most emphasis on their position as individuals exerting consumer power and not on CSA as a community. Another important point in terms of upscaling is attention to whether the CSA model is inclusive and sustainable. Our material and other literature suggests that the challenges related to work, time and competence result in a considerable threshold for participation. This can explain the ‘homogenous’ group of CSA members found in the literature (Chen et al., 2017; Vasquez et al. 2016; Lang, 2010; Schnell, 2007). In addition, more critical attention needs to be directed towards economic sustainability in terms of working conditions for CSA farmers and employees on the farm, as well as potential effects on national food systems.
Despite the overwhelming challenges, we find that collaborative consumption in the form of CSA helps to put sustainability issues higher up on the agenda in mainstream society. This could enable the upscaling of sustainable practices to a critical mass of people (Westskog, Winther and Aasen, 2018; see also Smith, 2007). However, for it to induce a system change, a shift in multiple arenas that work towards the same goal of low-carbon transformation is needed, such as better transport arrangements, better policy frameworks for collaborative consumptions initiatives (including regulatory changes), new technological platforms, and so on.

**Conclusion**

This article has shed light on how the informants’ engagement with CSA as collaborative consumption has potential for transformation. It enables new skills, materialities and a reconfiguration of values that is needed to produce everyday practices more in line with a low-carbon society (Wilhite 2016; Sygna and O’Brien 2013). However, though CSA engagement has influenced the informants’ practices, these changes have seldom been radical and most experienced considerable challenges in their efforts to live more sustainably. Mundane changes in everyday practices, though important in themselves, are a far cry from collective social action towards alternative food production on a large scale. We also conclude that aspects of inclusiveness, contextual factors and sustainability need further research and policy focus in order to make CSA a viable system change on a large scale.

**References**


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Understanding low-carbon food consumption transformation through social practice theory


