



Original Research Article

What makes a CSA a CSA: A framework for comparing community supported agriculture, with cases from Canada and ChinaZhenzhong Si^{a*}, Theresa Schumilas^a, Weiping Chen^b, Anthony M. Fuller^c, Steffanie Scott^a^a University of Waterloo^b Renmin University of China^c University of Guelph

Abstract

In different parts of the world, community supported agriculture (CSA) has taken a variety of organizational forms, drawn on different ideologies, used a variety of land tenure arrangements, and taken on varied types of market relations in terms of how they arrange sales and memberships. Despite this, comparative studies of CSAs are sparse. Based on interviews and survey results, this paper develops a framework to compare CSAs in Canada—where this system has evolved for the last 30 years as an alternative to industrialized agriculture—with those in China, where CSAs have emerged since the late 2000s, mainly in response to food safety and health concerns. The comparison is based on their initiators' motivations, economic characteristics, ecological practices, shareholder relations, and community building. We find that in both Canada and China CSAs are struggling to maintain the movement's original values and be economically viable. They are moving away from the traditional 'risk sharing' approach underpinning the model and adopting more flexible payment mechanisms. However, other original tenets of the CSA model, such as member engagement, are strengthening. This poses a definitional challenge—what makes a CSA a CSA? We conclude that CSAs mix capitalist and other-than-capitalist economic logic, blend traditional, organic, and productivist ecological relations, and demonstrate both individualist and civic collectivist politics simultaneously. These characterizations are what make a CSA a CSA in contemporary Canada and China.

Keywords: Community supported agriculture (CSA); Canada; China; alternative food networks

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Introduction

Critical food scholars have argued that the global agro-industrial system, which disconnects people from food production and associated ecologies, results in an increasing number of environmental, social, and economic vulnerabilities and problems (Gomiero et al., 2011; IPES-Food, 2017a; IPES-Food, 2017b; Weis, 2010). As a result, several concerns and related responses to the industrialization of food systems are arising simultaneously in many different parts of the world. Community Supported Agriculture (CSA) initiatives are a major type of these alternatives (Cone & Myhre, 2000).

CSAs are a frequently studied producer-consumer venture type in practice and scholarship (Brown & Miller, 2008; Cox et al., 2008; DeLind, 2003; Feagan & Henderson, 2009; Galt, 2013). In the classic CSA approach in Europe and North America (Brown & Miller, 2008), a group of consumers (usually referred to as “members” or “shareholders”) support a farmer by purchasing a share of the farm’s production at the beginning of the season, thus sharing the risks and benefits of the harvest. In this way, CSAs following this classic model redistribute value back to farmers by reducing the intermediaries along the food value chain, re-building trust and sharing risks between farmers and consumers, and producing food with an “ethics of care” (Cox et al., 2008) that shows consideration for both people and ecosystems.

The practices of CSAs have evolved significantly in the past 30 years (Galt et al., 2012). Today, they take a variety of organizational forms, draw on different ideologies, use a variety of land tenure arrangements and have various types of market relations (Schumilas, 2014). These new developments and variations continuously enrich the meanings of CSAs. Yet, they also render elusive the definition of a CSA. A key question thus emerges: What key characteristics differentiate a CSA from other alternatives? In other words, what makes a CSA a CSA?

To address this gap, this paper compares CSAs in Canada—where they have evolved for the last 30 years as an alternative to industrialized agriculture—with CSAs in China, which have emerged since the late 2000s. We describe several dimensions of CSAs that emerged in interviews and surveys in both countries. These dimensions form a framework for comparing the similarities and differences of CSAs in diverse contexts. We suggest that in both Canada and China CSAs sit at a highly paradoxical moment where consumers are seeking higher quality food and reconnection with food production amid growing social inequities, inability of small-scale farmers to earn a living, and deepening consumer capitalism. Consumer capitalism puts consumer interests at the centre of companies’ product market strategies (Trumbull, 2006). In this context, the boundary imagined to divide alternative markets from mainstream markets is becoming blurred. Consumers seeking individualist responses, such as customization of shares, drive the adaptations of CSAs, yet at the same time CSA operators are engaged in non-market relations such as (re)connecting producers and eaters and establishing “collective subjectivities” around food (Levkoe, 2011, p. 691). We observe that CSAs in both countries manifest these contradictory characteristics, raising questions about the definition of “CSA”. We argue that CSA as an umbrella term has much richer connotations than its original conceptualization might

suggest. This is particularly true given that in recent years, CSAs are appearing in emerging economies such as China, where they are shaped by local political economic contexts.

The paper does not intend to be judgmental (i.e., to determine whether a specific set of practices should or should not be called a CSA). The purpose of our central question is rather to look at the key features of contemporary CSAs and how CSAs in Canada differ from those in China and from their original conception. The paper aims to revisit the CSA concept and comment on the diversity of CSA practices because of the many innovations and changes in the economic, social, and ecological dimensions of CSAs. Another key focus is to question how useful the term is from a research perspective in the global context, given that most existing studies of CSAs were conducted in the Global North.

We begin by describing the research studies and data supporting our analysis and the definition of CSA that guided our research. We then introduce the framework for comparing CSAs that evolved from our research. Using this framework, we compare CSAs in China and Canada and then finally return to the definition of CSA.

Methods and data sources

Much of the CSA scholarship is based on studies of individual CSA operations or case studies of particular places. In contrast, we present an analysis that draws together surveys of CSA operations in both China and Canada. Since 2010 several of the authors have conducted a multi-site research study on the ecological sector in China, funded by the Social Sciences and Humanities Research Council of Canada. We conducted interviews in Beijing, Chongqing, and Shanghai, as well as in the provinces of Liaoning, Henan, Shandong, Jiangsu, Anhui, Zhejiang, Fujian, Hainan, Sichuan, and Guangxi. We spoke with employees and owners of organic and “green food” farms, representatives of organic certification bodies, government agencies, consumer associations, NGOs and community organizers, and researchers. Many of these stakeholders were engaged in the operation, promotion, or governance of CSAs in China, given that most CSAs in China were considered ecological farms. The data employed in this paper were part of this broad research project. Part of this larger project also included in-depth interviews, farm visits, and a written survey of a subset of 15 Chinese CSAs conducted by the second author. This information is supplemented by 70 additional CSA surveys conducted by one of the authors in China in 2014.

The Canadian CSA data are drawn from a 2011 survey of CSAs in Ontario undertaken by the second author in partnership with the Organic Council of Ontario (a provincial non-governmental organization), with funding from the Ontario Ministry of Agriculture and Food. According to the 2016 Census of Agriculture, Ontario comprises 38% of the Canada’s population and 26% of the country’s farms. Farmland in Southern Ontario covers a significant portion of Canada’s prime agricultural lands (Walton. 2003). Based on the national survey of CSAs conducted by Devlin and Davies (2016), more than one-third of Canadian CSAs operate in

Ontario. We first compiled a list of 200 CSAs in Ontario using a broad internet search. Then we contacted all of them and received 91 responses. The information reported in this paper is based on interviews with these 91 CSAs. These interview data are supplemented with more recent survey data from 100 Canadian CSAs (Devlin & Davis, 2016).

These research projects were executed independently and employed different research tools. We have extracted the variables and information that these projects have in common but acknowledge the limitation of this approach. That the wording of these surveys varied, and that they were translated into different languages, might have affected the consistency in data collection, although the interpretation of these questions was checked carefully to ensure comparability. In addition, these surveys are not based on a random sampling approach and thus are not necessarily representative of the overall situation of CSAs in either country. However, the research combines national surveys and specific case studies in both countries. With extensive interview data conducted in China and Canada, the data from the national surveys from our research team in China, the surveys conducted in Canada by researchers from the University of Guelph (Devlin & Davies, 2016), and secondary information that cross verify the results, we believe the paper captures the characteristics of the majority of CSAs.

Definition of 'CSA' and a framework for interrogation

It is challenging to obtain an accurate number of CSAs in either Canada or China because there is no organization maintaining a census, and because there is no agreed upon definition of what to count. This definitional problem is acute in China, where the initialism CSA is frequently used to label a diversity of ventures. In China the CSA approach was imported from the Global North, with later influences from the Teikei movement in Japan, rather than appearing as an endogenous development (Schumilas, 2014; Si et al., 2015). The English initialism CSA is typically used in discussions and promotion of the model within China because the translation is not straightforward. The Chinese word for *community* (*shequ*) commonly refers to a gated community or a housing complex. So, the use of the word to denote a community of affiliation does not translate easily into Chinese and requires much additional explanation. Recently, the term CSA was translated as *shehui shengtai nongye* ("social ecological agriculture") to highlight the socially and ecologically embedded nature of these farms (Zhang, 2018). Meanwhile, the English initialism CSA was also widely adopted. Direct-to-consumer farms as well as online ordering stores, for example, refer to themselves using "CSA." This might describe a small-scale farmer who enrolls members in a way quite similar to the Global North understanding (see Chen, 2015). However, it can also describe a much larger business that aggregates products, which may or may not be ecologically produced, from multiple farms and makes these products available through quite sophisticated online storefront operations (see Galt et al., 2012). In Canada we

usually refer to these as “food box” programs and do not typically use the term CSA to describe them.

Given this confusing landscape, we developed an operational definition for our research:

A CSA is an initiative in which an operator (either a rural or urban resident) sells products from land that they have a direct hand in managing,¹ using ecological methods, to an established group of repeat buyers with whom they are directly connected.

Note that in our research we excluded cases in which consumers ordered from an online store from a list of options without direct connection to a CSA operator and with no possibility of visiting a farm. However, we did include operations with diverse payment options. While some degree of direct connection with the farm and CSA operator was essential to our definition of CSA, we did not include a requirement that the consumer (member) shares the production risk (i.e., crop failures) with the farmer. We unpack this further below.

Our findings show that CSAs are an extremely diverse food distribution approach, and it is difficult to describe a typical CSA in either country. Drawing from this diversity and also considering the definition we have proposed, we evolved a framework to help us draw our different research projects into conversation. Table 1 outlines the dimensions and questions that we have used to compare CSAs in Canada and China. The framework is derived from the report of Canadian CSAs by Devlin and Davis (2016). The economic dimension of the framework also integrates the work of Gibson-Graham (2008) that interrogates the emergence of “diverse economies.” The framework touches upon various economic, social, and ecological dimensions, and thus allows a comprehensive examination of CSA operations.

Table 1: Dimensions for examining CSAs

Dimensions	Sub-Dimensions	Key Questions
Demographics and Motivations		Who started the CSA and why?
Economic Dimension ²	1. Enterprise Type	What is the ownership/legal structure? How are revenues and profits made and/or re-distributed (e.g. sole-proprietorship, co-operative, not-for-profit, corporate)?
	2. Scale and Transactions	What are the scale and logistics of the CSA? Are these monetary transactions or other? To what extent does the CSA support the farmer’s livelihood?
	3. Labour Relations	Is labour waged, alternatively waged (barter), or non-waged (volunteers)? What are the

¹ The word “managing” here has a broad connotation because the roles of the operator(s) of a CSA farm can be very diverse. This may include activities not only related directly to farming but also other activities such as packaging, marketing, and customer service. It can also include activities such as educational, research, and food advocacy projects happening on the farm. It is this diversity that makes CSAs very dynamic and thus merit further interrogations.

²

		relationships with labour regarding training and mentorship?
	4. Land Tenure	Is land private, rented, and/or held in a form of commons ownership?
	5. Risk Sharing	How were the CSAs financed initially? (i.e., equity financing? investment? self-financed?) How is risk being shared in the CSA?
Ecological Dimension	1. Functional Integrity	To what degree do the production practices reflect a mutual interdependence of human and ecological systems? (e.g., genetic diversity, closed loop systems, protection of soil structure and biology)
	2. Certification	Are the ecological practices verified by a third party?
Producer-Consumer (Re)-Connections		In what ways are producers and consumers connecting and reconnecting? How are CSAs communicating with and engaging members? How are CSA members drawn beyond their role as consumers into collaborative relationships with operators?
Community Organizing		In what ways are CSAs moving beyond instrumental market relations to bring about larger-scale structural changes? What is the relationship with the state?

Table 2: Comparison of CSAs in Canada and China

		Canada (Ontario only)	Canada (Devlin and Davis 2016)	China	China
		N=91	N=100	N=70	N=15
Operator Demographics & Motivations					
Age	Less than 40 years		58%	67%	
	Less than 30 years		16%	21%	
Education	University/College Graduate	82%	87%	53%	
	Graduate Degree	12%		14%	
Farming Background	Grew up on a farm	20%	37%		13%
Economic Dimension					
Enterprise Type	Sole Proprietorship (Household Farming)	85%	90%		94%
	Partnership or Cooperative	15%	10%		6%
Scale and Transactions	Average acres (range)	5.0 (.05 – 30)	3.2 (.05 – 25)		6.0 (1 – 13)
	Average members (range)	108 (3 – 335)	100 (2 – 657)		180 (3 – 400)
	Operators that rely on off-farm income		45%	29%	
	Use of additional marketing channels	90%	86%	70%	75%
Labour Relations	Average paid labourers per farm		6.6		14

	Use of volunteers and workshares	31%	19%	47%	
Land Tenure	Ownership of land (primarily)	78%	73%		
	Operating exclusively on leased land	21%	28%	84%	
Ecological Dimension					
	Incorporating compost/manure		97%		100%
	Crop rotation/cover crops		91%		38%
	No GMO in feed and seed		89%		100%
	Organic certification (third-party verification)	28%	34%	10%	6%
Producer-Consumer Reconnections					
	Use social media to reconnect		93%	67%	100%
	On farm visits and events		72%	39%	75%
	Plots available for use				47%

Different contexts for CSA emergence

CSAs in Canada emerged in the 1980s within a rich civil society discourse focused on community development. This movement embraced ideas of empowerment that included *collective participation* (individuals are part of the decision making process), *self-determination* (individuals are free and able to choose their own course of action), and *distributive justice* (challenges and benefits are fairly shared) (Lord & Hutchison, 1993; Rappaport, 1987; Wallerstein, 1992). Further, the early CSAs in North America were inspired by the writings of Rudolf Steiner and the idea of the biodynamic farm as a circular system (Steiner, 1924 as cited in Paul, 2011). Following Steiner, CSA farmers began to understand their farms as whole organisms and sustainability as extending beyond the ecological to include the social and economic life of communities. CSAs became a holistic way of living—not simply a way of farming—with the consumer integrated into the work of the farm and supporting the farmer in ways that were not only monetary (McFadden, 2004). The early CSA movement in Canada can thus be considered idealistic, even utopian. The approach was built on alternative, community-based ecological, economic, and social values, and framed as a response to the mainstream food system after the severe financial crisis in farming that occurred in the early 1980s.

Our research found that the context framing the emergence of CSAs in present day China is significantly different. It is one of rapid social, economic, and cultural change occurring in a political economy characterized by a strong state and weak civil society. China’s unique version of “capitalism with social characteristics” embraces a commons approach to land ownership, predominance of smallholder agriculture, a state commitment to domestic grain security, nascent

food safety legislation, and a civil society with limited autonomy from an authoritarian state that keeps shifting the terrain of what is permitted (Scott et al., 2018). In this context, China's agri-food system has been industrializing and modernizing rapidly since the adoption of machinery in the 1950s, the extensive use of commercial fertilizer (along with hybrid rice) since the mid-1980s, and the commercialization of seeds in the early 2000s (Reardon et al., 2003; Si, 2019). At the same time, the social and political environment is characterized by newly emergent urban middle class, growing social inequality and state concern with continued economic expansion, rural poverty reduction, and the maintenance of a harmonious society (Anagnost, 2008; Si et al., 2015). Further, unlike the Canadian context for CSA emergence, the movement in China responds to increased demand for high-quality food with good taste and health attributes, and especially food safety (Gale & Huang, 2007; Shi et al., 2011; Si et al., 2015; Scott et al., 2018). This is driven by the pervasive food safety crisis that the state has been struggling to address. Although food safety is also a top motivation for people to join CSAs in many other countries, the concern particularly predominates among Chinese CSA customers due to the food safety crisis of the past decade or so. This predominant focus on the safety and other health features of food by Chinese CSAs and their members overshadows their social and environmental values (Si et al., 2015). This reduces the resilience of these CSAs and may put their business at risk if the food safety concern is eased or other modern food retail formats emerge and are able to provide safe, trustworthy food at a lower price.

In conclusion, we observe that whereas CSAs in Canada evolved within a philosophy of empowerment, a farm debt crisis, and a growing movement promoting ecological agriculture, in China they are arising largely as an entrepreneurial and market response to change and uncertainties, particularly pervasive food safety risks, in a context with limited organized civil society (Schumilas & Scott, 2016). Reviewing their origins is critical for this comparative study because the differences of their origins explain the many distinctive features demonstrated by Chinese CSAs in comparison to those in Canada. Due to the absence of a food movement in China, CSAs are less shaped by environmental and social values. The lack of historic connections makes the configuration of CSAs revolve more heavily around contemporary, immediate, and obvious concerns—in the Chinese case, food safety—while deeper concerns such as the problematization of the mainstream industrial food system are overlooked.

Demographics and motivations – who are the CSA farmers?

CSA farms in China are primarily operated by highly educated individuals with diverse motivations. They are primarily urban born with limited direct experience in farming or agriculture. Our survey shows that most farmers (67%) are less than 40 years old and 21% are younger than 30. These CSA operators are more highly educated than other farm operators in China. About 53% of them have attended universities and 14% have graduate school education.

These CSA initiators refer to themselves as “new farmers,” explaining that, in contrast to traditional peasant farmers, they produce food in ecological ways and have rich knowledge of digital communication technologies and market demands.

In Canada, as in China, CSA farmers are younger and more highly educated than the general farming population. Indeed, 82% to 87%³ of Canadian CSA operators have undergraduate or technical degrees and 12% have graduate degrees. Unlike in China, Canada’s CSA initiators are primarily from rural areas. However, averages mask an important demographic change here. Our observation found that since Canada’s CSA movement started in the 1980s, there exists a group of older, experienced, pioneer CSA farmers. If we were to remove this first cohort of farmers, we may see similar demographics to those in China. In both countries today, CSAs are being started by urban people with little or no farming or CSA experience.

Motivations for starting CSAs in both countries are remarkably similar. In China for example, the most common motivation of farmers we surveyed is “pursuing a new way of life” (76%), with reference to pragmatic and instrumental motives, and in Canada CSA initiators also see the CSA as an entrepreneurial opportunity. In addition, in both countries CSA initiators told us they started CSAs to protect the environment and reconnect urban consumers with food production and farming. In both countries, CSA initiators are motivated to produce higher quality food, although the meaning of “quality” differs between these contexts. In Canada, most CSA farmers told us that food quality referred to food produced locally, using ecological methods, where procurement directly from the grower was valued. In contrast, CSA operators in China understood food quality to be safe and healthful food, that was always perceived to have better taste⁴. China’s CSA operators told us that food safety and quality is a “crisis” in China and this is thus a primary way to engage with and broaden the awareness of others, in order to respond to what they see as the state’s inability to ensure a safe and healthy food supply. The scalar association with quality (i.e., linking quality to the food being sourced locally) that we heard from CSA farmers in Canada was almost totally absent in our interviews with China’s CSA operators.

A further difference is that CSA initiators in China spoke about the loss of traditions accompanying the modernization of the food system; they seemed strongly motivated by traditional Chinese pastoral and idyllic imaginaries. We also found that many operators of leading Chinese CSAs were inspired and motivated by the New Rural Reconstruction Movement, a civil society initiative that promotes revitalization of traditional Chinese culture, ecological agriculture, and sustainable rural development (Si & Scott, 2016; Scott et al., 2018). Building on their strong connections with universities and non-governmental organizations, the New Rural Reconstruction Movement has assisted in the success of a few well-known CSA

³ These two percentages come from different data sources. The figure is 82% according to our survey in Ontario and 87% according to Devlin and Davis (2016). See Table 2.

⁴ We found in our fieldwork that there is consensus between CSA operators and their customers that the taste of food from CSA farms is much better than food from conventional channels. It is one major reason that people join CSAs, other than the safety of food.

farms. Members of this movement see the development of CSAs as a promising approach to achieving their rural development goals. Through organizing CSA symposiums and training workshops, the New Rural Reconstruction Movement has motivated young people to establish ecological farms in the countryside, many of which are CSAs.

Economic dimension

Enterprise type

While a diversity of CSA organizational and ownership structures can be found in both Canada and China, household-operated CSAs, or what is generally referred to as *sole proprietorship* in Canada, is the most common approach. It is interesting to note that this sole ownership form is associated with the greatest liability and vulnerability for the producer, since they are solely responsible for the farm. In Canada this may be changing. Our research suggests that multi-farm CSAs are becoming increasingly popular as a way to reduce this vulnerability. In this arrangement, individual farmers collaborate to form a network or partnership arrangement. These networks are often dynamic and informal, with each new season bringing about a change in the structure and function of the collaboration. Farmers might come together to plan for the season collaboratively, or there may be one farmer who adopts a brokerage role and arranges to purchase products from farms in the network. In these collaborations, farmers can more easily ensure the diversity and stability of their food shares. Individual farmers can specialize in growing products best suited to their situation (based on expertise, available equipment and labour, soil type and topography, etc.) Plus, the burdens and risks are shared across growers, making it a particularly appealing model for beginning CSA operators, especially in situations where consumers are reluctant to share risks with the grower. Typically, farmers do not formalize their structure into legal cooperatives. In Canada, farmers told us that this kind of less formalized multi-farm CSA structure allows them to experience all the benefits of a legally incorporated cooperative, but without the administration and commitments that cooperatives require. The situation is a bit different in China, as multi-farm CSAs mainly refer to CSAs that have multiple production sites across the country, rather than a collaborative initiative among a few independent CSAs. This enables the CSA to have a stable supply of a variety of produce throughout the year. This feature of their organizational structure reinforces our observation that CSA farmers seek flexibility and autonomy in the arrangements they choose.

In both China and Canada, a small number of CSAs are being operated by or under the aegis of not-for-profit organizations⁵ (see Si, 2017). In this structure, an organization offers a variety of supports and benefits to the CSA including access to funding, marketing, reputational

⁵ It is difficult for not-for-profit organizations to register in China due to legislative and regulatory constraints. Such CSAs therefore are normally registered as businesses despite their not-for-profit orientation.

benefits, and assistance with building connections and networks. In both countries, these not-for-profit–supported CSAs, while small in number, take leadership roles in the movement and offer advice, workshops, training and/or marketing support to other CSA farms, and can be credited with generally advocating for and expanding the CSA approach. Indeed, these farms function as dissemination nodes and can be seen as a response to the evident need for education, training, and advice in the CSA movement. Despite these demands, we also find that, compared to Canada, formal networks for education, training, and solidarity building for the CSA movement in China are weaker due to state restrictions on civil society organizing, generalized lack of trust in civil society organizations, and farmers’ reluctance to pay membership fees.

Scale and transactions

While there are a few large CSAs in both China and Canada, generally, in both countries, CSAs are small-sized farms producing on less than five acres, with fewer than 100 members or shares. While small in size, their cumulative impact can be significant. For example, in 2011 the CSA market in Ontario was estimated at \$7.3 million, offering shares to 8,000 families (i.e., some 25,000 or more people) (Organic Council of Ontario, 2012). Most operators in both countries supplement their CSA sales by selling produce through additional channels such as farmers markets, restaurants, produce distributors, online buying clubs, and specialty stores. With the rise of online shopping, most CSAs in both countries are now selling online to some extent. However, despite heroic marketing efforts in both China and Canada, we found that CSA sales are insufficient to support farmer livelihoods. This resembles the strong self-exploitation of CSA farmers identified by Ekers, Levkoe, Walker and Dale (2016) in Ontario. Forty-five percent of operators in Canada and 29% of operators in China rely on off-farm work.

Risk sharing

The first North American CSAs rejected the emphasis on industrialization, economies of scale, and maximization of efficiency, which have become the imperatives that define conventional agriculture. In the original CSA pricing approach, the eater pre-purchases a share or box of goods at the beginning of the season and the producer chooses the share’s contents weekly, depending on the harvest. In this way, members who buy shares are in essence speculating on their produce and sharing the production risk with the grower.

Most Canadian CSAs continue to follow this pre-purchase, risk-sharing approach. In contrast, in China, although the pre-purchase model was adopted by early CSAs, it is now very unusual for CSA members to pre-purchase season shares. As a response to consumer needs of flexibility, these CSAs have established more pragmatic member payment schemes such as prepay credit for later purchases through online ordering systems or paying week by week. Some

Chinese CSAs sell fully customized boxes of vegetables by the week, with no requirement for pre-purchase and thus no risk-sharing with the farmer. Indeed, we have questioned whether the label of CSA is appropriate in many of these situations.

While most Canadian CSAs are still following the traditional risk-sharing model, operators are finding it increasingly difficult to find consumers prepared to buy in to this model. Many Ontario CSA farmers we spoke with are considering more flexible arrangements. For example, point systems are growing in popularity, in which the eater purchases a share in advance at a fixed price, and then selects produce based on the established points, thus giving eaters more choice. Further, a number of Ontario CSAs we spoke with guarantee a fixed quantity of produce and buy items from other farms if their own harvest is lacking, effectively re-internalizing production risks. Indeed, in both countries, CSA operators struggle to stay attractive and competitive in the local food marketplace where consumerist values prevail. These findings support those of earlier CSA research (Feagan & Henderson, 2009), showing that CSAs are eschewing some of their founding principles such as risk-sharing, and becoming more oriented toward consumer demands for greater choice.

Labour

CSAs in Canada and China approach farm labour needs differently. In Canada, while a few larger CSAs employ multiple labourers, most CSA operators carry out most of the labour on their farm themselves. This resembles other studies in Canada and the US that demonstrate that the survival of many CSA farms facing their industrial counterparts relies upon processes of self-exploitation (Ekers et al., 2016; Galt, 2013). A minority of farmers we spoke with pay for labour, and if they do, it is typically only one or two workers on a part-time basis. Alternatively, waged approaches (Gibson-Graham, 2008) were common, with 30% of farms offering formal internship/training programs on their farms and 31% offering “work shares”. Non-waged labours in the form of interns, apprentices, and volunteers are found to be essential for the persistence of the moral economy despite the fact that many of them are marginally or not profitable (Ekers et al., 2016). In Canada, a work share refers to a member who contributes to the overall production of the farm as part of the farm’s labour pool and receives an allocated share of food in exchange. In contrast, most Chinese CSAs employ large numbers of peasant workers. On average, we observed two workers employed per acre, in addition to non-waged family members. Despite this, finding enough labour is one of the major challenges facing Chinese CSA operators. This is particularly true as most CSAs are located close to major cities such as Beijing, Shanghai, and Chengdu, where non-farming job opportunities in the city are more appealing to younger people. As a result, most hired labourers on Chinese CSAs are seniors from nearby villages. In addition, we also observed a clear separation of management and labour functions with little worker participation in farm decision-making and governance. Chinese CSAs report work shares (*laodong fen’ e* in Chinese) as a form of labour, but the way this term has been adopted is

revealing. In China, this term reflects a more individualist approach, where consumers rent land on the farm, and participate in or oversee the production of vegetables for themselves (Chen, 2013) in a type of farmer-mentored garden plot.

The alternatively waged labour arrangements in the Global North (workshares, volunteers, internships) are often a way in which people interested in starting CSAs learn about the approach and develop the skills necessary to start their own CSA once they acquire land. So, while these are labourers, they are also closer to being “co-farmers” and are, at least to some extent, involved in farm decisions (Cameron, 2010; Cameron & Gordon, 2010). In China, CSAs also recruit volunteers and interns who are interested in starting their own CSAs to help on the farm. However, in our observations, these are typically urban residents, not peasant farmers. In China, the CSA operators shape the conditions of employment of the peasant workers, frequently telling us that waged peasants were ignorant of ecological farming techniques. The marginalization of peasant farmers in CSAs is indeed not a widely discussed issue among Chinese CSAs, but analyses of public and political discourse detail the ways in which peasants and peasant production are cast as ignorant, backward, and responsible for holding back progress (Schneider, 2015). Indeed, in our research, even the central protagonists of the CSA movement in China, who by all other accounts took strongly egalitarian positions, at times seemed blind to peasant marginalization and injustice. That said, we also learned that in 2012, a small group of Chinese food activists started a new approach to experiment with value redistribution through a model of working *with* peasants, rather than hiring and “sharing more harvest” with them. This experiment has gained limited success (Si, 2017).

Land tenure

While CSAs in both Canada and China adopt similar organizational structures, and have been initiated in similar ways, the means by which land is accessed are quite different. In the 1980s, China replaced its commune-based production system with the Household Responsibility System in which households became the primary production units. The adoption of a “contracted responsibility” system in rural areas equitably redistributed land to peasant households based on the number of family members. As such, the land tenure system in China is based on land leased from these peasant households, usually brokered through local village committees and new elites (Xu & Fuller, 2018). The majority of CSAs in China therefore rely entirely on land leased from villages and peasant households. In only a few instances did we find that peasant households started CSAs on their own contracted land under the Household Responsibility System.

Although this commons approach, at first blush, seems ideal because it makes farmland accessible for running CSAs, there are also significant disadvantages to leasing. In peri-urban areas that are vulnerable to urban expansion, some leases can be quite short, making it difficult for the long-term planning needed for the sound development of ecological agriculture. We also

learned that, in many other cases, the rent is typically increased every one or two years, adding to the cost and challenging the economic viability of these farms.

In Canada, compared to China, more diverse approaches to gaining access to land for CSAs are evident. Most CSAs we interviewed (78%) operate on land owned by the farmer or the farmer's family. In many cases, this land had been held by the family for decades. However, purchasing a farm is beyond the reach of newcomers to the CSA movement and farmers need to become quite creative about land tenure. Approximately 21% of farmers we interviewed had found sympathetic farmers from whom they could lease small portions of land. Other arrangements we uncovered included obtaining permission to grow food on municipally owned land, or land owned by churches in urban areas, or simply "squatting" on public right-of-way land without any formal use agreement. Wittman et al. (2017) identified new forms of cooperative land tenure emerging among local food initiatives in Canada. We also found that accessible land is often located the furthest from urban centres, making the operation of direct-to-consumer marketing more challenging and resulting in higher food miles.

Ecological relations

In both Canada and China, most agronomic practices of the CSAs we surveyed and visited were largely consistent with IFOAM (2009) organic principles, including sourcing non-GMO seed, using on-farm composting and manure, mulching, mixed cropping, and avoidance of synthetic pesticides and fertilizers. Chinese farms were strongly embracing closed loop farming systems, referred to as "circular farming," in contrast to industrial systems that rely on off-farm inputs. Almost all the Chinese CSAs we visited practiced circular farming through techniques such as anaerobic fermentation of vegetable wastes, using composted human manure for fertility, integrating livestock into farming systems, and relying on plant-based medicines for veterinary health. In contrast, the use of cover crops and intercropping, two practices considered strongly ecological and essential to organic systems, were less common in China. The absence of these specific practices stands in contrast to traditional Chinese practices. Intercropping is a traditional practice in China in which two or more crops are grown on the same field in order to more efficiently use land, water, and nutrients, as well as to lower weed and pest pressure. China has a strong history of diverse sustainable farming practices including well-known examples of traditional rice-fish-duck cultivation systems in Central and South China (Fuller & Min, 2013; Shi et al., 2011). Despite this, CSA operators we interviewed felt these ecological practices were very labour intensive and told us they lacked the necessary equipment and traditional knowledge to implement such practices on their farms.

There are some possible explanations as to why certain ecological practices are adopted and others are not. First, these are nascent ecological farms in China, with inexperienced operators. Some practices may be beyond the beginning skill levels of these farmers; we might anticipate the growth of such practices as the sector matures. Second, in China, the state

influences the adoption of particular practices through subsidies for certain technologies. We noted that advanced greenhouse systems are evident on these farms because of state support for such infrastructure. Similarly, the Chinese CSAs were using various biofertilizers and ecological insect management approaches that the state supports, but the state is not offering support for cover cropping and many other soil building practices. Third, whereas a group of pioneer CSA farmers and internship programs are available in Canada to mentor new entrants, such skill building and training programs are not yet commonplace in China. Given the lack of civil society-based networking and skill building opportunities, most CSA operators in China are learning by trial and error. That said, there is indeed a variety of information available through books and on the internet in Chinese. Despite that, it is always a challenge to find sources of information adapted to local conditions. Hence, most operators in China are still conducting all kinds of experiments in farming, with references to different farming styles from abroad, such as organic agriculture, natural farming, biodynamic agriculture, and so on.

Third-party verification

CSA farmers in Canada are more likely than their Chinese counterparts to seek third-party verification of their practices. Canada's organic regulation only requires certification when a farmer is selling organic goods across a provincial border, so there is no requirement to have a third party verify production for CSA sales. Yet, in Ontario, 27% of CSAs pursue certification voluntarily. In our interviews, farmers explained this decision by expressing their endorsement of Canada's organic standard, demonstrating their support for ecological principles and their desire to show solidarity with their peers and contribute to a unified voice for organic growers across the country. In comparison, few CSAs in China pursued third-party certification. While most CSA operators told us they followed organic principles in their operation, only 6% to 10% pursued organic certification. Several interviewees explained to us that there is widespread mistrust of the process of certification among consumers and they rely instead on "participatory certification," by which they mean consumers visiting farms to observe the practices for themselves. The Participatory Guarantee System, in which a group of farmers, ecological farming organizations, consumers, and academics organize themselves to inspect farms, is also practiced among a growing number of CSAs.

In both countries, however, farmers felt that certification systems were not designed for them. Farmers believe that such verification systems are designed for larger farms selling into long and distant value chains and are unaffordable for smaller operators. This is particularly the case in China, where we calculated the cost of organic verification to be ten times more per acre than in Canada. Interviewees in both countries spoke critically about the lack of state support for ecological agriculture. In addition, Chinese CSA operators and consumers alike are cynical and suspicious about the state's role in organic standard setting (Schumilas & Scott, 2016).

Produce-Consumer (re)connections

Despite modifications to share structures and risk sharing in response to consumer demands that were outlined above, we found that in both Canada and China, CSA operators are working hard to challenge the conventional distinction between buyer and seller by encouraging member involvement and reconnection. All the CSAs we interviewed in both countries spoke about the many ways they interact with their members to foster a supportive community. Our research supports previous CSA research (Feagan & Henderson, 2009) in concluding that reconnections and member engagement seem to be a key definitional element of CSAs. Almost all encourage members to visit the farm, most use newsletters and hold social events, and most see themselves in an educational role. We were struck by the advanced use of social media platforms by Chinese CSA operators for marketing, member engagement, e-commerce, and arranging deliveries. Most Chinese CSAs surveyed members for feedback regularly. However, CSAs in Ontario appear more likely to go further and involve members on advisory committees to help with difficult decisions such as pricing structures or how to handle a crop failure. That said, we also learned of some Chinese cases in which CSA members lent or donated money to farmers who were hit by typhoons or other weather emergencies and lost crops and/or infrastructure (e.g., greenhouses). So, while less likely to engage members on advisory committees, Chinese CSAs are readily engaging members in providing needed financial support.

Unlike Canadian CSA farms, it is common for Chinese CSAs to rent gardening plots to their members. For example, almost half of the CSAs we surveyed set aside a parcel of land for renting out to consumers or members who wanted to produce their own food, or simply enjoy family time in the countryside (leaving most of the responsibility for growing to the CSA farm staff). This type of consumer engagement is different from workshare arrangements prevalent in Canada. In a workshare, the member helps produce goods for all the CSA members. In China, CSA members work in these rented plots to produce for their own consumption. While Canadian CSAs strongly encourage members to visit the farm, and enjoy on-farm events, the intent seems to be more focused on building awareness of where food comes from. In China, CSA members seem to be trying to take more control over their food in an environment where fears of food adulteration run high. In China's highly urbanized environment, CSA members may experience a greater intensity of urban life, and are strongly pulled to the lifestyle aspects of just being on a farm, which correlates with the frequent references we heard to the pursuit of fresh air and healthfulness.

Community organizing

Scholars have evoked the idea of “food citizenship” (Welsh & MacRae, 1998) to describe how producers and consumers in alternative food networks move beyond buying and selling food, toward shaping state and/or global policies that impact the broader food system. This scholarship

contests the view that CSAs are ‘simply’ market-based initiatives focused on individual consumer behaviour, arguing that instead they are best understood as complex entanglements of market and non-market relations that are “collectivising consumption” (Johnston 2008, p. 243) and establishing “collective subjectivities” around food (Levkoe, 2011, p. 691). This framing in the Global North is based on a long history and culture of a civil society distinct from the state and the market. The situation in China is remarkably different and independent civil society is only recently emerging. China’s CSA operators sit in an authoritarian context where there is no clear historical separation between the private and the public, and the boundary between what is permitted and prohibited is in constant flux. Yet our research suggests that in both Canada and China, CSA operators are frequently food activists deploying grassroots community organizing strategies.

Since the beginning of the movement in Canada, CSA farmers have been involved in building coalitions, community organizing, and advocacy for food sovereignty (Ashiabi, 2000). CSA farmers we interviewed all belong to and are active in several different civil society organizations (e.g., National Farmers Union, Ecological Farmers Association of Ontario, Organic Council of Ontario, Canadian Organic Growers) and many take leadership roles (see also Koç, 2008; Levkoe, 2014). CSA farmers told us that it is through these organizations and coalitions that they are able to expand the CSA movement and have a voice in shaping social, economic, and ecological policies that matter to them. Some of the key advocacy themes and issues that farmers mentioned to us during our interviews included anti-GMO campaigns, creation of local food system councils/roundtables, calling for fair trade initiatives, advocacy for more scale-appropriate food regulations, challenging economic policies that advantage large farms over small, and supporting international food sovereignty organizations such as La Via Campesina.

In comparison, community organizing among Chinese CSAs takes a unique form, typically more localized, non-confrontational, gradual, and fragmented (Ho & Edmunds, 2008). Schumilas and Scott (2016) documented how China’s CSA operators are building reflexive practice, using the internet to expand their reach and challenge the state, and developing influential alliances. In this respect, the support of Renmin University of China’s School of Agricultural Economics and Rural Development, and NGOs such as the Beijing-based Liang Shuming Rural Reconstruction Centre, the Hong Kong-based Partnerships for Community Development, and the US-based Institute for Agriculture and Trade Policy demonstrate the emergence of a supportive academic and NGO environment for the development of Chinese CSAs, as well as a context in which forms of advocacy are emerging.

These organizations not only provide assistance to solve problems in farming and management, but also facilitate coalitions that build solidarity among and beyond CSA operators. Renmin University of China and the Liang Shuming Rural Reconstruction Centre, for example, have been organizing annual CSA symposia since 2009, when the first group of CSA farms had just emerged in China. The symposium has grown each year since (to more than 1,000 participants in 2019) and is attracting interest from diverse social groups as well as the state. In

addition, a renowned scholar at Renmin University of China in Beijing, Professor Wen Tiejun, initiated and facilitated the establishment of the China Social Ecological Agriculture Alliance, which was officially registered as a social group in 2017. The Alliance, led by Shared Harvest CSA Farm in Beijing, has been actively promoting food education in schools through their “Son of the Earth” project.

In both countries, we found that CSA operators invest significant time using these alliances to enlarge their networks and build ties with members of other nascent civil society groups, environmental NGOs, and the media. However, in China, these linkages emphasize personal more than organizational connections in order to avoid the risk inherent in forming official and overt multi-network movements (Schumilas & Scott, 2016).

Discussion and conclusion

This comparison reveals that in both countries, CSAs sit at a highly paradoxical moment in which consumers are seeking higher quality food and reconnections with its production. Yet at the same time consumers are demanding greater choice, cheaper food, and more convenience, while markets and farms are consolidating in scale and it is difficult for small-scale producers to earn a living. In this context, the boundary imagined to divide alternative markets from mainstream markets is becoming blurred. Consumers seeking individualist consumer responses drive CSA adaptations, yet at the same time CSA operators are engaged in non-market relations such as (re)connecting producers and eaters and establishing collective subjectivities around food. We observe that CSAs in both countries manifest these contradictory characteristics, raising questions about the definition of CSA.

The ownership structures, land tenure, member engagement, and risk-sharing characteristics of CSAs have all evolved significantly to adapt to local conditions. The original CSA concept was built on a holistic philosophy that, in contrast to a commoditized food system, emphasized empowerment of both producers and eaters. After interviews and visits with hundreds of CSA farmers in two countries, we see the idealism of the early movement being challenged. New, young, urban, middle-class people are starting CSAs and infiltrating the movement with a new pragmatism. In efforts to support their livelihoods, CSA operators are modifying the model to give consumers greater choice and to soften the expectation of consumer risk sharing. Considering these changes alone, we might conclude that CSAs are becoming just another “marketing channel” for farmers trying to capture greater value in the marketplace.

Despite the trend of CSAs becoming more market oriented, they demonstrate strong egalitarian motivations that intermingle with the pragmatic, including rediscovering rural and agricultural traditions, responding to environmental crises perpetuated by productivist agriculture practices and policies, and a desire to supply high-quality food. Our research suggests that, in both countries, CSA operators put a high priority on and allocate resources toward activities that build community, reconnect eaters with the source of their food, demonstrate an ethics of care

for land, and engage in community organizing for food system change. CSAs are not simply sites of material transactions. They are also places where community is being built and hegemony is being challenged.

In both Canada and China, CSA operators are struggling to maintain the movement's original values in a context of growing social inequities and deepening consumer capitalism, while trying to earn a living. The constant evolution in the CSA movement poses a definitional challenge. Amid the diversity of approaches, what makes a CSA a CSA? Risk-sharing was a definitional element of the original CSA. Yet our research suggests CSAs are moving away from risk sharing and adopting more flexible payment mechanisms. However, other original tenets of the CSA model remain, and are, in our observations, strengthening. Community engagement and member reconnection is taking new forms in China. New digital technologies are being employed by CSA operators to facilitate these reconnections. Moving to online marketplaces may be a way for CSA farmers to increase scale efficiently, and newer technologies are allowing for full traceability and transparency to the farmer and their production methods. CSA farmers are trying to find new and more ways to connect and learn from each other across scales, and CSA operators are forming new networks and alliances within and beyond the movement.

By using a framework that examines CSAs from multiple dimensions, we see that they remain a complex phenomena, not explained by economic considerations alone. Indeed, we find the unifying characteristic of CSAs in both contexts is a focus on (re)connecting producers and consumers and on ecological forms of production.

The paper does not intend to examine the impacts of the variations in the political economic context within each of the two countries. Yet we believe this is a valid and promising research question for future studies. In China, the variation of economic conditions has shaped the operation of CSAs in that most Chinese CSAs are located near major cities such as Beijing, Shanghai, and Chengdu. The different economic conditions across different regions might also lead to variations in agricultural supports in the form of subsidies that these CSAs might receive from provincial and local governments. That said, there does not seem to be a significant difference in terms of the difficulty of accessing labour across the country, given that most CSAs are located close to major cities that offer more appealing job opportunities to the younger generation. As a consequence, most hired laborers are senior citizens from nearby villages. On the other hand, we do not see considerable political variations within China that may have an impact on CSA operations in different regions. This is explained by at least two factors. First, CSAs are still quite nascent and marginal in the current agrifood system in China, and the state plays a limited role in directly shaping their operations. The impacts of the state (e.g., facilitating land access) are often not associated with the local political environment, but rather personal connections among CSA operators and state officials. Second, in the case that the state's policies are influencing the CSA operation, the top-down nature of policy implementation in China ensures a relatively homogeneous orientation of agrifood and land-use policies in the country.

A key issue that this paper addresses relates to studies of alternative food networks, such as CSAs, which have been struggling with the question of whether these initiatives are a type of

utopian entertainment for a few middle class consumers, or if not, are they the beginning of a political struggle that configures new food-system relations (Goodman & Dupuis, 2002). Our response is that they are both. CSAs in both Canada and China manifest hybrid and sometimes contradictory characteristics. These findings help us move beyond binary thinking that can assume CSAs are posed in opposition to mainstream food systems. Following other scholars, we suggest that the hybrid and contradictory characteristics of contemporary CSAs demonstrate a mix of capitalist and other-than-capitalist economic logics (Andree et al., 2010; Ballamingie & Walker, 2013; Cameron & Gordon, 2010). Using CSA cases in Canada and China, this paper reveals that the capitalist economic logic is reflected in the deviation of CSAs from their original risk-sharing principle to give consumers greater choice. In parallel, the other-than-capitalist logic is underpinned by the social and environmental values that CSAs still retain, which emphasize community building, producer-consumer reconnection, and environmental sustainability. In terms of the ecological and political relations, the new developments of CSAs also blend traditional, organic, and productivist ecological relations (Egelyng et al., 2013), and demonstrate both individualist and civic collectivist politics simultaneously (Lamine et al., 2012). Although it would be worthwhile for researchers to determine whether these arguments hold beyond Canada and China, we argue that CSAs do not clearly fit into either/or categories of mainstream or alternative. Rather, they need to be seen as hybrid systems with a “yes-and-also” nature, or perhaps, given the research setting, one that is “yin-yang”.

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