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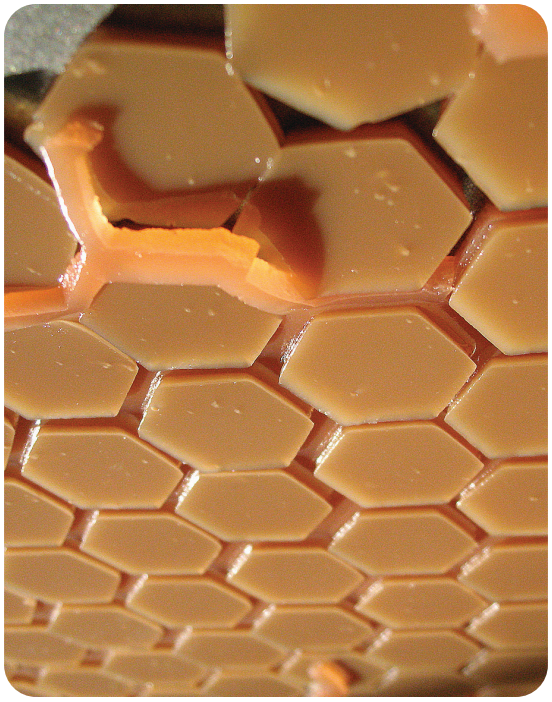

This issue takes us across the country, highlighting particular communities where food-related transformation is happening, encouraging us to think differently about technology and subjectivity. Notably, the methods used by several authors involve critically dissecting language—whether that be the discourse or terminology used by food systems change-makers or by people who are themselves affected by food system change. Often, the ordinariness of familiar terms or concepts belies their complexity and hidden sides, necessitating closer scrutiny. "Big data" is one such phenomenon, upon which Kelly Bronson and Irena Knezevic shine a critical spotlight. Showing how current data sources and data collection technologies differ from those of the past, the authors make the case that current big data are more than neutral numbers, but benefit productivist food regimes.

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photo - David Szanto

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Editorial

Inspiring and informing through food studies

Ellen Desjardins

This issue offers a rich and diverse selection of material from Canadian authors and reviewers. It takes us across the country, highlighting particular communities where food-related transformation is happening, and it encourages us to think differently about technology and subjectivity. Notably, the methods used by several authors involve critically dissecting language—whether that be the discourse or terminology used by food systems change-makers or by people who are themselves affected by food system change.

Often, the ordinariness of familiar terms or concepts belies their complexity and hidden sides, necessitating closer scrutiny. "Big data" is one such phenomenon, upon which Bronson and Knezevic shine a critical spotlight. Showing how current data sources and data collection technologies differ from those of the past, the authors make the case that current big data are more than neutral numbers, but benefit productivist food regimes. They point to the need for research to document the consequences of big data to a broader group of food systems models. Another popular phenomenon is the "food charter": dozens of such manifestos have materialized across Canada in the past decade, signifying positive, united visions for the food systems of cities and regions. Or is that just one side of the coin? Spoel and Derkatch analyse the food charter as a "genre", examining their rhetoric and embedded ideologies. They suggest that charters perform not just by reflecting inherent values, but by aspiring to shape a food system in an uncontested way. The authors ask if charters may mask, rather than reveal, tensions and contradictions; with this in mind, they recommend that researchers evaluate the societal and policy fallout of charters, including both their intended actions as well as their exclusions and unintended effects.

MacLeod, in her Perspectives article, takes just such an approach, although without focusing on food charters. She brings us to Cape Breton Island, where she investigates changing "ecological" food practices among the islanders. Her information comes from discourse derived

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from ethnographic interviews, observations at events and markets, restaurant menus, and policy documents. What she finds there is not a clear, linear pathway of change, but divergent discourses in multiple arenas (personal, social, economic, dietary), revealing a tangled web of new power relations, identities, struggles and opportunities. With this in-depth work, MacLeod has provided baseline evidence upon which new projects and policies can be built. Lavallée-Picard offers us similar insights from her tale of two communities: Saint-Camille in Québec and Salt Spring Island in British Columbia. In what ways are these different populations moving towards food sovereignty? Answers are again sought in discourse, revealing the systemic challenges that people are struggling with, as well as the practices and circumstances that are nourishing positive change. Colatruglio and Slater bring more narrative into the picture, this time from young adults who have left home and are voicing the everyday experiences of preparing food for themselves. What emerges is a multi-faceted set of personal, environmental, and social factors that influence food literacy, or lack of it.

An unmistakable thread runs through these collective pieces that expose us to *person*-centred activities around food, eating, politics, and shifting food environments. Inevitably, it is messy and fascinating and dynamic. Here is where Szanto is waving madly at us from the sidelines, exhorting us to go a step further and acknowledge something that he argues is here already: the validity—indeed the honesty—to express subjectivity when we research and write about food. To ensure a normative yin/yang-like balance within food studies, rather than sticking with dispassionate objectivity, we support, in this journal, the inclusion of first-person narrative, reflexivity, and emotional dimensions in all types of submissions. Is there sufficient evidence for a *personal turn* in food-related literature, as Szanto suggests there might be? Is it hot in here? I feel we can make it so.

Finally, a word about event and book reviews. Tudge describes the *BPLTC 111: Food Control* artistic exhibition in Montréal so vividly—including images—that we can picture ourselves there, experiencing the avant-garde, bio-political representations that make three food system trends (fermentation, industrial mono-culture agriculture, and seed banking) come alive in novel ways. Additionally, the five book reviews, shepherded by associate editor Phil Mount, span a wide range of topics, including local food supply chains in Nebraska, market transformation strategies for sustainability, cheese-making and its politics, critiques of fat activism, and a deconstruction of gluten-bashing and other fads. All worth reading!

Regarding our editorial team, we are pleased to welcome a new associate editor, Alyson Holland. Alyson comes with experience as editor of another journal, as well as with OJS (open journal systems). We thank the University of Waterloo for providing our OJS online platform, plus essential library staff support.

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Commentary

Is it hot in here, or is it just me? On being an emotional academic

David Szanto

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At many moments during the 2015 Canadian Association for Food Studies (CAFS) Assembly last May, I found myself becoming quite emotional. In fact, I will amend that statement: I didn't just become emotional, I let myself both feel and express my emotions, in public, to myself and to all those who might have been paying attention.

It happened during the Pre-Conference, when we collectively realized there were more students and emerging scholars in attendance than the *total* participation for the first CAFS conference in 2006. It happened in the *What IF*? Symposium, as I watched a presentation about how science and technology studies might benefit from food studies (and vice versa), and the power and poetics that are already at the intersections of STS and food. It happened when I was giving a talk myself, about a few what-iffy ideas for future epistemic models, and the potential for fermentation and actor-network theory and performance to help us reimagine food systems, death, and humanity. And it of course happened when Alice Julier gave her rousing—and very personal-political—symposium keynote address, swirling together labour, feminism, and food.

In writing this, I feel as if I am somehow coming out as an "emotional academic". As if it were a thing I have been trying to keep hidden (not very successfully, probably) over the years. Yet I also suspect this label is one with which many of us might self-identify. Moreover, I believe that we need to own our emotionality when it comes to food scholarship, and to find ways to incorporate it actively into our work. Certainly, food is an emotional, personal, and intersubjective topic, and so perhaps these qualities should be woven into the theoretical foundations and methodological practices of the field.

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For some, I may seem late to the game in embracing subjectivity; for others, it may contradict what they consider to be the nature of academic work. Historically, certainly, scholars have been looked to as the cool rationalists of the world, unswayed by feeling, faith, and fancy, but guided by principles of reason and, above all, objectivism. The so-called scientific method has clearly been a paradigm for many disciplines that undergird food studies, allowing us to create distance and differentiation from our study object, rather than getting too mired in its messy, tasty, and intimate realities. But is this helping us as knowledge seekers, hurting us, or both? And more specifically, when and how is the "messiness" of academic emotionalism important?

Many years ago, while immersed in a master program centered on food culture and communications, I found myself in conversation with a respected and imaginative professor of geography. It was probably after a nice meal of some sort, and we were musing on the nature of food studies, relative to certain longer-established fields. At one point, I said something to the effect of: "Well, all academic work is personal, after all." It was an opinion I had held long before starting the master, formed after thirty-five years observing the academics around me. (Both my parents were professors, and I was frequently in the presence of their colleagues and graduate students.)

The geographer looked a little horrified at my statement, and quickly shot back, "I should certainly *hope* not." It surprised me, since she had seemed to be one of the more non-conventional researcher-thinker-doers I had met. Later, however, I realized she must have thought that I meant something quite different than what I intended. I had wanted to express that if one devotes a great deal of time and attention to a given subject—as most academics do—then it must be personally compelling, regardless of the rigor or looseness of one's approach. I think she thought that I meant it was all about her.

Ten years have passed since that exchange, and a new sense of what I mean when I call for academia to be "personal" is starting to emerge. It means finding ways to acknowledge the researcher's whole corpus within her work, to take advantage of the benefits of emotion-*plus*-reason, and to accommodate the many shifts that are taking place in our industry.

Particularly in the field of food, students appear to be initiating upper-level degrees for increasingly diverse reasons. Graduate work may now be done in order to transform the individual as a citizen, not just into a writer of scholarly articles and a giver of lectures. It may be a way to construct one's self as an agent of change in the world, or simply to find and follow different paths than those generally in evidence. The more-conventional academic attitude of *I-consider-this-a-critically-important-subject* is doubtless still relevant, but so might be others, such as *I-need-to-understand-where-and-how-I-belong-in-this-world*. Regardless of whether the latter is part of a broader trend towards self-reflection and egocentrism [insert Facebook blame statement here], it is an attitude that is undeniably present—and immovable—among the bachelor and master students I have taught. What is more, having gone through these self-examinations and transformations, many graduates become motivated to induce similar change

within the worlds around them, sometimes just so that they have a space in which they can continue to belong. More power to them.

In addition to the drivers that put master and doctoral bums in seats, increasing criticality and reflexivity in certain academic fields and area studies have also helped draw attention to the influence of the self in research outcomes. Many of these scholarly areas are about reimagining the notion of "reality" and challenging the historic intentions of those who have framed our teaching and learning models. Whether one calls it wishful thinking, prescience, or just more w*hat iffery*, I perceive this movement as a *personal turn*, one that is manifesting itself with increasing frequency. If indeed it exists, our social and professional institutions are going to have to find ways to accommodate and respond to it. Ignored or repressed, it will simply claw itself to the surface with more vigor (emotionally driven vigor, of course).

Assuming for the moment that this nascent turn is upon us, consider three characteristics of academia that seem to be contributing factors. First, universities are churning out way too many PhD graduates for the academic pipeline to absorb. Knowing this going in, many doctoral applicants pre-figure their projects as personally driven, explorations of a given subject for the purposes of individual enlightenment and growth, rather than a means of "getting into the academic club". Clearly, the objective of the majority of PhD students can no longer be a tenure-track position, nor even necessarily to become an academic. As our institutions continue to welcome more and more graduate students, it means welcoming those people's diverse motivations. It also means that supervisors, funding structures, program directors, and the bureaucracies of academia will have to make room for processing emotionality and other personal factors, rather than expecting all students to be aiming at the same academic gold. In parallel, there is an intriguing opportunity: what kind of institutions outside of academia (that is, other than government, NGOs, and industry) might be populated (or created) as professional spaces for these eventual "non-academic" doctorate holders?

Second, and following various turns toward reflexivity, many areas of academic practice are already absorbing the personal through engagement with corporeality, affect, and the psyche. Certain streams of anthropology, political science, gender studies, art and design, performance, geography, and sociology recognize that researchers are components of their own research apparatuses. This means not only the physical body, but also the habitus, cognitive experience, sensory histories, and the limbic system are all entangled with the theoretical and methodological tools that comprise a given project. If all these "parts" of the researcher are part of how research is done, then once again the academy and individual academics will have to learn to deal with that package. We cannot assume that our emotions are separate from our intellects, or that our minds can be made to work when our bodies are not well. While these old dualities are frequently acknowledged "in theory", the practicalities (including the timelines) of *doing* a chunk of research or writing often lead us to forget that humans are whole systems, not bifurcated beings. Supervisors and colleagues get impatient, administrative processes are unresponsive, journal editors too quickly dismiss fuzzy textual explorations. Even our own

internal voices tell us to *just get on with it*. When these institutional elements make institutional demands, even the most carefully constructed theory-and-practice hybrid can lose its lovely integrity.

Third, as we attend to the effects of our work in the larger ecologies of which we are a part, the line between scholarship and political action becomes increasingly blurred. Certainly many food scholars over the years have supported revolutions, but activism seems particularly prevalent (and importantly so) among those entering food studies more recently. Driven to enact change in the world, and hoping for the legitimacy that graduate degrees often confer, both master and doctoral students now frequently view academia as a means to *activist* ends. Once again, the personal, political, and professional become entangled, not only with each other, but with the linked processes of thinking and doing about food. For the academic institution—as well as organizations like CAFS—it requires accepting that students are already hybridized as they come in to our folds, as well as making the appropriate institutional adjustments to support and encourage such people. Moreover, it means that students and emerging scholars will be constructing and occupying many non-separated spaces during their careers, which will demand ongoing flexibility for our disciplinary framings. Given the power structures that characterize and sustain most universities, productively accommodating students who are politically and critically attentive will require a good deal of self-examination on the part of senior scholars, administrators, and other institutional actors. Equally, it means listening to the voices in our hearts (and not just heads), while resisting the muzzles we may be tempted to self-impose.

After the CAFS Assembly in Ottawa, I traveled southward to the ASFS/AFHVS conference in Pittsburgh, where my emotionality continued to perform me. I shared accounts of my post–dissertation defense depression. I jumped up and down with glee when historic power structures got rattled, and when both Jell-O and chia slyly evaded foodish categorization. I got a little steamed when I felt that the material agency of knives and onions was getting short shrift in a presenter's research methodology. I did all this because, frankly, I am emotional about these issues. They are things I care about—a lot. But partly, I also let it show in order to see what would happen. I wanted to know what being out as an emotional academic would do to my own sense of professionalism, and I wanted to perceive the responses of the people who bore witness. Reactions were predictably multiple: looks of confusion, empathy, mild revulsion, blankness. (Relief, too, for surely there are other "closeted emotionals" among us….) Over the course of the conference I felt more vulnerable than I generally do in such settings, but also much more relaxed—and more honest. For me, anyway, the experiment was a success.

Clearly, in professional contexts such as universities, emotion isn't easy, either to be exposed to or to feel. Yet it is always already a part of each one of us, never separate from our whole corpus, and deeply integrated with the common fascination we share for our subject. Being emotional doesn't weaken us as academics or take away from the ways in which we are intellectual about food; the two are not inversely related. Emotion and intellect complement one another. Emotions make us more sensitive to why our research is important to us and to

humanity, more mindful about how our colleagues operate and feel, and more capable of coming into resonance with the extraordinary complexity of food issues.

I tend to suspect that I'm not the only one feeling a little warm lately. If we are to grow and develop the way our field examines and deals with the all-important subject of food, then let us activate the personal turn in a broader way. Let us productively come to grips with our emotional states as human academics. I am sure that we are more than capable of doing so, of accommodating—and indeed benefiting from—emotionality and intersubjectivity in our research, reporting, and responses to one another. Moreover, I can imagine a day when this active integration of all that we are allows food study to take the lead in academia, as a paradigm for integrated and holistic scholarship that is both personal and *personal*.

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Perspective

Food studies scholars can no longer ignore the rise of big data

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Abstract

Our essay invites food scholars to consider how the recent technological developments are making *big data* increasingly relevant to our field. We offer an overview of the how big data and related crowdsourcing of information are penetrating the production and marketing of food, and reflect on what are potentially key ethical and epistemological questions that link big data with issues of sustainability and social justice in food systems. Our aim is to initiate a more deliberate dialogue between data scholars and food scholars to more comprehensively assess contemporary agri-food environments.

Keywords: Big data, crowdsourcing, agricultural "apps", new agricultural technologies, precision agriculture

Introduction

As big data becomes a site for critical scholarship across many disciplines, scholars caution data enthusiasts that the ways in which big data are generated and used are intimately bound up with

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questions of justice and ethics. For example, how are large data sets used and to whose benefit? Given that many Canadian food studies scholars are deeply concerned with issues of sustainability and social justice vis-à-vis our food systems, might a focus on big data in agriculture intersect with those priorities guiding existing critical inquiry? We think yes, and in our essay we draw inspiration from critical communication studies, food studies, and science and technology studies to lay out suggestions for a cross-disciplinary line of inquiry. Such inquiry could facilitate an improved understanding of how big data trends can support and/or undermine sustainability and social justice in food systems.

In this Perspective essay, we begin by explaining big data and how they are understood in current critical scholarship. We then make links between big data and agri-food systems, and identify the differences between current and past data technologies and data collection. Finally, we probe the potential consequences of this technological development, and we pose research questions that may be of interest to food studies scholars. Exploring how big data complicate current agri-food environments can provide a new forum where food scholars can interrogate the dominant "food regimes"[1].Current big data developments may support a productivist food system model at the expense of others, a preference connected with political and economic consequences that challenge some people's very livelihoods, both in cultural and material terms. Given its material consequences, bringing critical data scholarship into the fold of food studies seems a pressing research priority.

What are big data?

Big data are large sets of data that are organized systematically. Although the term has only been in use for the last few years, big data have existed for decades. They are often longitudinal, but can also be spatial, population-related, or even biological—such as genome sequencing. A familiar example of big data is historical weather information, where large sets of data are organized to enable the relatively accurate prediction of weather patterns for particular geographical areas and times of year.

New technologies have allowed information to be collected at an unprecedented scale, with enormous efficiency, and from non-traditional sources. But big data refers to more than just volume—it also means the technological capability for searching, aggregating, and cross-referencing datasets (Manovich, 2011). This analytical capability, some researchers suggest, represents a new scientific revolution across various spheres from biomedical research to marketing (Anderson, 2008). As well, big data increasingly form the bedrock of modern policy decisions by governments and non-governmental authorities (Gitelman & Jackson, 2013).

Praise for big data as "revolutionary" fits into the techno-utopic discourses of the democratizing power of Web 2.0 (Anderson, 2008; Shirkey, 2008; Tapscott & Williams, 2006),

[1] Coined by Friedmann and McMichael (1987), the term 'food regimes' is widely used in food studies and refers to capital-centred agri-food systems that are the contemporary norm and are characterized by social inequities.

which is seen as enabling the systematic gathering of "non-expert" knowledge. For example, Shirkey (2008) argues that crowd sourcing initiatives can facilitate input from a wide range of individuals with varying levels of expertise. This can optimize problem solving and collective—rather than technocratic or autocratic—politics. We all know something about the self-regulating dynamics of "crowds", and how they can result in surprising volume, effectiveness, and accuracy because of our familiarity with now mundane tools like Wikipedia (Giles, 2005).

So whether large-scale search data can help us create better tools, services, and public goods, or whether it will usher in a new wave of privacy incursions and invasive marketing remains an open question. Optimistic big data scholarship, notably, has been matched by a nearly equal measure of critical work (Busch, 2014; Couldry & Turrow, 2014; Crawford, Miltner, & Grey, 2014; Elmer, Langlois, & Redden, 2015). For example, scholars have revealed how much crowd-sourced information is primarily benefitting marketers and other elite interests, rather than the crowd itself (Qualman, 2009). Facebook has been accused and legally tried for the unauthorized collection of user data, from which it is said to profit annually in the billions (Matlack, 2012). Joseph Turow offered a critique of big data and marketing as far back as 2006 in his book *Niche Envy,* inviting readers to question how these tools interact with our culture and civic life. Not only are scholars drawing attention to the ethical issues associated with big data collection and use, but some are analyzing the epistemological context of digital information (Berry, 2011; Bollier, 2010; Crawford, 2009; 2015). In her work, for example, Kate Crawford interrogates the self-conceptions that are shaped by a "fitbit datasphere", which represents a very narrow range of bodies cultivated through commercial interests (Crawford, 2015).[2]

Big data and agriculture?

Our literature search revealed a lack of scholarly attention paid to big data in food and agriculture. A few articles anticipate the potential value of big data for agribusiness (Campbell, Magnay, Ibrahim, & Rabatsky, 2014). Two case studies explore social media use in assessing a population's food preferences—one for informing food policy (Shulman, 2003) and the other for food marketing (Tesfom & Birch, 2010). We found one article describing the potential of big data for transferring technological knowledge to remote farmers in the global South (Hoang, Castella, & Novosad, 2006). We were unable to find any published critical scholarship on the relationship between big data and agi-food.

Looking back, however, much historical crop monitoring might arguably constitute big data. Farming in the developed world, even at the small scale, is increasingly carried out with computerized tools and by drawing on information in databases. Knowledge, of weather systems for example, is generated through the management, analysis, and interpretation of large volumes

[2] For those venturing into big data literature for the first time, we recommend several key works that serve as an excellent introduction to big data and society questions: Boyd and Crawford, 2012; Couldry and Turow 2013; and Kitchin, 2013.

of data. The *Agroclimate Impact Reporter*, which is Agriculture Canada's application and maps tool, relies on volunteer-submitted weather information to help farmers and industry mitigate weather-related risks. Other aspects of the food system, such as food marketing, are also increasingly supported by big data, such as crowd-sourced information collected with digital tools. Then there are more recent tools like MIT's *Sourcemap*, which offers both free and commercial databases that track "end-to-end supply chain data: from raw materials to end customers" (sourcemap.com). Sysmos' *Heartbeat* poaches social media for information on market trends and consumer interests. The non-profit research organization, Farmers of North America (FNA), is currently testing the *AgPriceBook* app (short for application) that will "allow farmers to post and find prices on inputs in various categories such as crop protection products and fertilizer" (FNA, 2014).

Non-industrialized farming operations are also increasingly reliant on large sets of digitized data. For instance, a US Department of Agriculture-led *LandPKS* application (Land Potential Knowledge System, 2015) focuses on agricultural development and extension, providing "mobile and web technologies (that) are being designed to help individuals identify management strategies to sustainably increase production, and that are tailored to their land's unique climate, soils and topography". The international agricultural research consortium, CGIAR, released *Seeds4Needs* in 2013. This is a tool proclaimed to be a solution for agricultural improvement, including climate change adaptation innovations, policy development, and building farm equity. Far from a futuristic imaginary, big data tools and systems are clearly already a part of agricultural operations the world over.

Farmers have been encouraged to adopt new technologies for data collection, analysis, and monitoring of farm-level systems through appeals to the realization of greater business intelligence. Websites of companies like John Deere and Monsanto promise farmers a level of precision, information storage, processing, and analysis that was previously impossible due to technological limitations. Herein lies the fundamental difference between old and new data technologies: the volume and speed of data gathering and processing means that the consequences of decisions drawn from this information can be immediate and significant. In other words, any potential benefits (to any food system actor) can be realized quickly and efficiently. On the other hand, it also means that errors and skewed decisions can be detrimental to food production and producers at a scale previously unfathomable.

The marketing pitches for such interactive applications—along with sensors, meters, and other data-generating tools—arguably promise farmers the same thing that tractors and recombinant seeds used to do (and still do): "make the farm pay" (Kneen, 1995). John Deere is said to be revolutionizing farming with big data. One description of their digital applications, which connect farm information across millions of users, suggests that these technologies allow farmers to "enhance productivity and increase efficiency"' (van Rijmenan, 2015). Similarly, Monsanto's *FieldScripts* is described online as bringing in a brighter future as the tool "integrates innovations in seed science, agronomy, data analysis, precision agriculture equipment, and service to provide farmers with hybrid matches and a variable rate planting

prescription to improve corn yield opportunity" (Monsanto, 2014). These are not new promises; rather, they reflect a long-standing link between the "good life" and the effective application of new technologies to labour (Marx & Roe-Smith, 1998).

Many technologies have in fact improved the lives of farmers and their ability to produce food, the tractor being an obvious one. But historical trends in North America suggest that those benefits to farmers are typically greatly exceeded by corporate gains. Big data, similarly, have the potential to benefit farmers. Weather-tracking can clearly offer more precise information to farmers to help them make better decisions on the farm. Open access data bases provide great possibilities for peer-to-peer knowledge sharing. A Canadian Federation of Agriculture policy officer suggested to us recently that satellite imagery (a form of big data) can be used to generate low-cost insurance rates for farmers. This is a real possibility and one also identified by the *Agroclimate Impact Reporter* (mentioned above). He also indicated that apps providing real time commodity and input prices, for instance, can protect farmers from price-gouging (Ross, personal communication, 2015). So big data, as is the case with many technologies, are not inherently dangerous and can potentially improve farm conditions. Unfortunately, corporate trends in agriculture magnify the chance that profit-driven technology use will exceed (in speed and scale) any farm-centred potential of big-data.[3]

Thinking carefully about big data in agriculture: New research directions in food studies?

Food scholars have apparently not yet considered the implications of big data to our field. Even the UK sociologist Lawrence Busch, who has written extensively about the agri-food system, neoliberal food regimes, and emergent technologies (like biotechnology), did not make the connection between big data and agriculture when he recently wrote about the policy implications of big data for the *International Journal of Communication* (2014). Our cursory scan of recent agricultural technologies suggests that this connection is not only significant, but also raises several important research questions.

One overarching research question at the intersection of food studies and data studies could be: With technological shifts toward the use of large integrated data systems in the agricultural sector, what changes and what stays the same? Arguably, farming has been empirically driven for over a century. The Food Research Institute in the USA and Agriculture Canada's family of research centres were created in the early 1900s to provide empirical information on agriculture. Meticulous accounts were made of wheat yields across farms, weather patterns were analyzed, and soil conditions tracked in order to increase efficiency in

[3] That there are corporate benefits attached to big data in agriculture seems evidenced by the recent purchasing habits of Monsanto, which who bought the digital tool developer Climate Corporation in 2013. Climate Corp. itself is acquiring "start-ups" (640 Labs and Solum) who are focused on tools for collecting farm-level information.

wheat production (Anstey, 1986). Another longstanding example of an empirically standardized approach to food and agriculture is the Codex Alimentarius Commission. Established by the Food and Agricultural Organization (FAO) and the World Health Organization (WHO) in 1963, Codex is an international body that promulgates standards, guidelines, and codes of practice in the realm of food safety (Bűthe & Harris, 2011; Halabi, 2015). So what's so new or different about big data? As previously stated, surely the volume of information and the analytical potential of contemporary computer technologies for collecting agricultural data represent a shift. Yet, we think that systematically tracing the historical developments, and charting the affordances as well as the limitations of various empirical approaches, is worthy of research attention among food studies scholars.

Additionally, we can ask: Are there agricultural systems that cannot easily be accounted for by data gathering tools that take in only quantitative data? For example, holistic farm management surely depends on such a broad variable set and a systemic view that it might not easily fit into a quantitative framework. Moreover, if quantifiable data are the tool through which policies are made and assessed, there may be negative consequences for agricultural priorities that cannot easily be quantified—for example, the role of family farms in community vitality of rural areas, or the benefits of farm biodiversity. These kinds of inquiries centre around what we might call the "politics of quantification" (Hacking, 1992; Nowotny, 1991; Porter, 2000). Scholars have pointed out that institutions like Codex, with standardized forms of expert reasoning, have helped to solidify particular scientific frameworks (in their case for risk analysis) that embody particular value choices regarding health, environment, and the dispensation of regulatory power; therefore they advantage particular actors in the food system (Winickoff & Bushey, 2010). Other research has pointed out how risk analysis frameworks for agricultural biotechnologies in Canada fail to account for the concerns of many farmers because these concerns cannot fit into a reductionist framework. Thus social, political, and cultural concerns over agricultural biotechnologies are ignored in quantitative risk analyses (Bronson, 2014). These insights into the politics of empirical frameworks evoke the need for food studies scholars to address such work on big data tools and frameworks.

Closely related are the larger questions of power relationships cited in critiques of contemporary food regimes (Clapp, 2012; Friedmann, 2009; Koç, Sumner, & Winson, 2012; McMichael, 2009). Those critiques often rely on political economic analysis, and comment on the inequities that seem inseparable from the industrial food system. So how are these power relationships changed or perpetuated under big data? More precisely, are there profit-generating uses of farm-level data that extend beyond the farmer? Who exactly is using these data and for what benefit? The National Farmers Union (2003) has tracked the massive disparity between farm-level income (even including economically successful farmers) and the profits of large food corporations. Do we see a perpetuation of these relationships of inequity under big data? It would be useful for tracking the profit margins of John Deere under the broad move towards, in their words, farming "forward" (van Rijmenan, 2015).

While key concerns here may have to do with data ownership and economic inequity, we suspect that the issues are even more complex. Whereas crowdsourcing big data tools do rely on farmers' knowledge, they do not necessarily invite farmers to shape the context in which that knowledge is collected. A long history of research in science and technology studies tells us that technological devices contain possibilities for ordering human activity. By far the greatest latitude of choice for what the final order will look like is the very first time a particular instrument is introduced. Choices tend to become fixed into material equipment, economic investment, legal infrastructure, and habits of thought and speech (Bronson, 2015). So who has a role in deciding precisely which kinds of data are to be collected, given the design of big digital tools? Are there farming systems (like holistic farm management systems) whose types of data cannot be captured by apps targeting highly reductionist, quantitative information? Will these farming systems that exceed the technological logic of big data remain in the background of agricultural development?

We predict that particular agricultural systems and foodways are perpetuated not just in the design and use of big data—say, for the disproportionate gain of powerful agri-food corporations—but also in the marketing of big data technologies. In what ways do the images circulating in the marketing of big data tools normalize particular farming systems? It is obvious that the imagined typical user for John Deere's big data tools is a farmer who unproblematically adopts the newest technologies—not just digital weather apps but also a completely automated or smart house. The imagery of John Deere's *Farm Forward* marketing campaign is imbued with a longstanding cultural bias against farming strategies which cannot be "rationally managed" as technology-maximizing, profit-oriented businesses (Kneen, 1995). Food studies scholars have already clearly established that techno-utopian promises about the bright future of agriculture under new technologies (tractors, hybrid seeds, chemicals, GMOs) have not only proved misleading but also dangerous (Esteva, 1996; Kneen, 1995; Moore Lappé, 1971; Patel, 2007).

Big data are poised to challenge—or possibly reproduce—relations among food system players, and we think that they deserve attention by food studies scholars. We have raised questions that carry cultural, political, ecological, and material significance. A more deliberate and sustained dialogue between data scholars and food scholars is a pressing research priority.

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Perspective

Food discourses in Cape Breton: Community, economy, and ecological food practices

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Abstract

This study examines ecological food practices on Cape Breton Island as legacies of traditional lifestyles and responses to the acceleration of global capitalism. People have many reasons for producing and consuming ecologically, ranging from health concerns to active resistance to environmental destruction and corporate control. These varying perspectives give rise to, and are reflected in, multiple discourses that shape and constrain possibilities for challenging the dominant food system. To illuminate these complexities and contextualize my investigations, I interview farmers, community organizers, restaurateurs, and policy makers, and analyze promotional literature, policies, and archival documents. I situate my observations within broader circumstances to highlight the significance of local developments for advancing similar efforts in other locations.

Keywords: ecological food, local food tourism, Cape Breton, discourse, ethnography

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Introduction

In the twenty-first century, scientific innovation and globalization have intensified our fascination with food, offering an abundance of food products and encouraging the emergence of alternative food movements, "foodie" cultures, and culinary tourism. These developments in turn have given rise to a proliferation of interpretive and critical writings that reveal divergent perspectives and points of common concern underlying changing food practices. Central issues include food security and human health; the ethical treatment of animals; the impact of industrial food production and consumption on natural environments; the significance of oppositional food strategies; the symbolic dimensions of food practices; and the economic potential of alternative food practices for local communities. Untangling these overlapping and conflicting topics reveals the complexity of food issues and the challenges facing those who promote more accountable ways of producing and consuming food.

When we examine our complex associations with food and our positions on food issues, we can accentuate food practices as *discourses* and as *cultural performances* through which we negotiate our identities and affiliations. Focusing on discourse allows me to explore food practices in terms of possibilities and constraints, including economic benefits, social connections, and healthy lifestyles; as well as time and energy demands, financial compensation, and environmental factors. The importance of *sustainable* food practices raises important questions: Who performs this labour and how is it financially compensated? How are products distributed and shared? What kinds of supports would make ecological practices more feasible on a broader scale? Discourse analysis is a useful way to access these varying perspectives that shape people's values and identities.

In this study, I assert that a nascent "ecological" food movement exists on Cape Breton Island, and I explore the divergent discourses accompanying this cultural and economic development. I examine the intertwining of various discourses, while disentangling multiple interests, experiences, and forms of knowledge that shape understandings of and responses to food issues in the region. Helene Shugart (2014) defines discourse as "an index of issues, values, and priorities that are resonant and exigent in a given historical moment" (p. 264). Stated simply, discourse is "a particular way of talking about and understanding the world (or an aspect of the world)" (Jorgensen & Phillips, 2004, p. 1). Discourses embody political and ethical dimensions that engender material consequences, shaping identities, relationships, ideas, and practices. Anne Portman (2014) states that "[L]ocal food advocacy as a discourse and a practice rests on the fundamental claim that one's food choices have not just economic, but political and moral significance" (p. 4). Discursive frameworks endure through processes of resistance and social transformation yet, importantly, established frameworks change in response to human agency and historical circumstances (Barthes, 1975; Corbin, 1998; Foucault, 1977; Giroux, 2000; Martin & Andrée, 2014).

Consumerist discourses envelop all human food practices because food consumption is fundamental to life. Yet, in the context of global capitalism, consumerist frameworks typically

promote individual choice, low cost, and convenience, devaluing social and environmental considerations as extraneous or secondary (Guthman, 2008; Lynch & Giles, 2013). This study argues that enlarging food discourses and framing food practices as cultural, symbolic, and ecological (as well as economic) offers possibilities for negotiating accountable and sustainable social and economic relationships. I explore the dialectical tension within consumerist discourse between "buying cheap" versus "buying local-organic."

From an economic perspective, buying cheap makes sense; however, focusing solely on economic factors elides the inherent ecological and social costs of the capitalist food system. Reintroducing these costs illuminates the ways that food practices underlie our identities, relationships, and interactions with the world. The implications of our food choices—for local economies, communities, human health, and ecological sustainability—are crucial for our survival and well-being. Consumerist discourses can be appropriated, disrupted, and redeployed to advance ecological goals.

My experiences as a Cape Breton inhabitant and cultural critic shape my investigations into the island's alternative food movement and local food tourism initiatives. Cape Breton's distinctive environmental and economic circumstances make the island an important site for examining ecological food practices. Advantages for farmers include available land, a moderate climate, and surviving natural pollinators. Disadvantages, on the other hand, include poor soil, a short growing season, and highly variable weather conditions. Fishing has always been central to the island's subsistence and economic survival, while agriculture, although less dominant, has always been important for sustaining local communities and economies. Fishing and farming, along with tourism, have become increasingly important in the twenty-first century as government and business leaders seek ways to rebuild local economies in the context of de-industrialization that has closed Cape Breton's coal-mining and steel-making industries. Examining such endeavors as they unfold is important for building sustainable food practices in this region and for understanding how collaborative organization contributes to processes of cultural and economic change. I highlight the social and environmental implications of economic developments to argue that sustainable economic strategies must respond to cultural and ecological conditions.

I begin with an examination of existing food discourses, followed by a brief historical overview of agricultural practices in Cape Breton. In subsequent sections, I explore commonalities and differences among the perspectives of multiple participants in the island's alternative food movement, including local advocates, food producers, and consumers. I additionally explore tensions between conventional and ecological farming initiatives and relations of cultural and economic power among farmers, tourists, and restaurateurs in local food tourism developments. My study suggests that ecological food practices and local food tourism initiatives offer possibilities for building economies and enriching cultural life in rural communities.

Sources of information

To illuminate the discursive frameworks that underlie ecological food practices in Cape Breton, this study adopts a critical ethnographic approach that attends to cultural differences and power relations. Critical ethnography (Madison, 2012) brings to light inequalities and injustices to argue for empowering change. Reflections on power extend to field encounters and acknowledge the researcher's significant power to shape situations and authenticate interpretations.

My investigations are not explicitly self-reflective; however, my cultural and professional positioning inevitably shapes my analysis. In particular, my interests in rural communities, environmental issues, and animal welfare contribute to my understandings. I am not actively involved in the island's local food movement, but I am a supporter of ecological food initiatives such as farmers' markets and a consumer of local-organic produce and locally produced free-range chicken. The symbolic and political dimensions of food therefore contribute to my cultural identification.

My strategies for data collection included participant observation and in-depth, open-ended interviews. Participant observation consists of observing people in natural settings, participating in their activities, and offering detailed descriptions of interactions, artifacts, and events (Lofland, Snow, Anderson, & Lofland, 2005). To understand developments in ecological food, I visited farmers' markets, restaurants, and bed-and-breakfast establishments. I also participated in food festivals, workshops, and other culinary events. My experiences in these settings enriched my understanding and analysis of ecological food practices. These locations also brought me into contact with potential interviewees, most of whom were happy to assist my research and identified additional individuals to inform my investigations.

This study includes ethnographic interviews with various stakeholders, including farmers, community organizers, government representatives, and restaurateurs. The perspectives of these participants often overlapped; for example, farmers in particular were often activists who advocated for consumer awareness and policy changes. In my analysis, I referred to these participants by their predominant and self-identified roles in local-ecological food initiatives. Our conversations provided me with access to respondents' accounts of their opinions and experiences. In analyzing interview data, I incorporated description, interpretation, and evaluation to explore the ways in which underlying power relations shape individual viewpoints and actions. My analysis begins with observation and proceeds inductively with continuous movement between observation and interpretation.

I contextualized respondents' accounts using archival documents, policy papers, tourism literature, and other transcripts related to sustainable food practices. Comparing and contrasting these texts brought to light points of commonality and disagreement that facilitate and complicate efforts to challenge mainstream food practices and establish sustainable initiatives in this region. I also consulted scholarly publications and analyzed my findings in light of ecological food initiatives in regions facing similar possibilities and constraints. Cape Breton's circumstances are, of course, particular but local conditions often encapsulate and express widely

shared conflicts and concerns. I situated my observations within broader social and economic circumstances to highlight links between local initiatives, global developments, and possibilities for building collaborative ecological endeavours in Cape Breton and beyond.

Analytical perspectives

The following pages present my findings framed within existing debates about local-ecological food practices and local food tourism developments. Findings are categorized under five subheadings corresponding to relevant themes that emerged over the course of my research. These sections (1) identify local food discourses as they pertain to developments in Cape Breton, (2) provide a brief historical context for agricultural practices on the island, (3) illuminate conflicting discourses among advocates, producers, and consumers of local food, (4) reveal tensions between conventional and ecological food practices, and (5) examine cultural and economic power relations among farmers, tourists, and restaurateurs involved in culinary tourism endeavours. To explore these themes, I combine data from interviews with my participant observations and material from other sources.

Local food discourses

Food discourses vary within and among cultures and localities, but frameworks for understanding and debating food issues are widely shared across divergent contexts. Characteristically, discourses of sustainable food emphasize farmers' contributions and the benefits of "good food" (Shugart, 2014; Smithers, Lamarche, & Joseph, 2008), coalescing around issues of animal rights, environmental protection, food safety, human health, and individual and local autonomy (Lynch & Giles, 2013; Pilgeram, 2014). Local-organic food discourses, like those of industrial agriculture, foreground consumption practices, but discourses of sustainable food can constitute "oppositional strategies within consumption" (Smithers et al., 2008, p. 319) that challenge the exploitative and destructive tendencies of global capitalism (Cook, Reed, & Twiner, 2009). As such, food movements must confront social justice issues as well as those of health and environmental sustainability (Pilgeram, 2011; 2012). Oppositional consumption strategies must support adequate incomes and manageable workloads for producers, and demand that fresh, wholesome foods are affordable and available for all cultural participants.

Food discourses intersect with those of sustainability and economic development. Participants in ecological food practices have differing political standpoints but often downplay differences to promote harmony and cooperation. Mainstream and non-dominant groups embrace overlapping discourses to advance their opposing agendas, thus the implications of ecological food are not necessarily empowering for all cultural participants (Lynch & Giles, 2013; Martin & Andrée, 2014, p. 191; Pilgeram, 2012; Slocum, 2007). Local food advocacy frequently reverses

the oppositional relationship between the "natural" and "cultural," redeeming "nature" but retaining the dichotomous relationship and essentialist quality of both concepts and eliding the nuances and complexities of nature/culture and local/global (Portman, 2014, p. 27). This study explores internal differences to illuminate complexities and linkages and discern the subversive and transformative possibilities of Cape Breton's ecological food movement (Portman, 2014; Sayre, 2011).

Emphasis on consumption highlights food practices as a form of pleasure and political action to resist global capitalism (Sayre, 2011; Shugart, 2014; Starr, 2010). Consumerist discourse underscores the importance of market decisions for transforming the industrial food system and sustaining healthy bodies and communities. Highlighting consumer agency can enhance awareness of food issues and intensify demand for local products, but such frameworks are inevitably limited by their focus on individual behaviour rather than collective action to disrupt capitalist food practices. Additionally, consumers' ability to choose responsibly is compromised in capitalist cultures when corporations conceal production practices and promote corporate products as "local," "organic," and "natural." Understanding sustainable food as a consumer movement also downplays the crucial role of food producers and the links between food practices and policies that affect resources, public health, and rural development (Sayre, 2011, p. 39).

Yet, despite inherent limits, consumerist discourses can enlarge knowledge of food politics and encourage collective responses that challenge dominant food practices. Local food initiatives become meaningful strategies for change when they engage with the interests of producers and consumers to illuminate how "agency and structure work against and through each other" in defining places and local identities (Everett, 2012, p. 552). In consumer cultures, advocates for change must learn to act within market settings, identifying contradictions and enlarging possibilities for meaningful relations (Starr, 2010, p. 486). Intersections among discourses of food, identity, sustainability, and development demonstrate that alternative food practices are converging into a powerful social movement centred on envisioning and enacting mutually beneficial social, ecological, and economic arrangements (Everett, 2012; Giampiccoli & Kalis, 2012; Glowacki-Dudka, Murray, & Isaacs, 2013; Sims, 2009; Starr, 2010).

All of these discourses shape local food practices and promotion in Cape Breton. Medical professionals and concerned residents underscore the health benefits of consuming local, whole, organic foods in response to significantly higher rates of heart disease, diabetes, and cancer in Cape Breton than among the overall Canadian population. Farmers, political representatives, restaurateurs, tourism operators, and community supporters promote local food as nutritious, delicious, environmentally responsible, and economically significant (with varying degrees of emphasis based on their personal and professional positioning). Proponents of local food tourism emphasize its importance as a development strategy to revitalize rural economies and offset unemployment and outmigration in the region. Implications of these strategies are complicated and economic development goals, in particular, can conflict with ecological priorities, but

building sustainable agriculture and encouraging consumption of locally produced food products is potentially empowering for individuals and rural communities.

Historical context

Definitions of local food typically draw on the history of food production and consumption and on the symbolic significance of food traditions for particular regions or cultural groups (Bessiere, 1998; Bessiere & Tibere, 2013; de Salvo, Hernández Mogollón, Clemente, & Calzati, 2013). On Cape Breton Island, aboriginal people historically enjoyed abundant natural food sources, consuming large amounts of fish (e.g., salmon, eels, trout, mackerel, haddock, cod, shellfish) and meat (e.g. grouse, ducks, seals, moose, snowshoe hares) supplemented with seasonal plant foods (e.g. berries, fiddleheads, dandelion greens, nuts, and roots) (AMEC, 2013). European colonists brought their varied food traditions to the New World and adapted to local conditions through their interactions with First Nations people. They traded, fished, and hunted, and farmed beef and dairy cows, pork, poultry, eggs, potatoes, rutabagas, cabbages, and other root crops.

Although not a predominant industry in Cape Breton, agriculture has always contributed to the island's economy, but commercial food production has been limited and concentrated in particular geographical regions (for example, in Inverness and Victoria Counties) and Cape Breton has always depended on imports for much of its food supply (Beaton, 2009). Traditionally, many farms provided subsistence or supplemental incomes for families relying mainly on other types of employment to sustain their households (Beaton, 2009).

The island's economic history is based mainly on resource extraction, including fishing, forestry, and mining. During the nineteenth and early twentieth centuries, coal-mining and steel manufacture brought economic booms to industrial Cape Breton but these industries collapsed in the late twentieth century, exacerbating unemployment and outmigration. As traditional industries declined, government and business officials increasingly promoted tourism as a solution to the island's ongoing economic instability. Tourism remains an important economic strategy in the twenty-first century for creating employment, developing off-shoot industries, and generating revenue. Agriculture also remains an important economic activity: both tourism and agriculture have been identified as sectors for economic development in Cape Breton (Cape Breton Partnership, 2012).

The Nova Scotia Department of Agriculture states that farming in Cape Breton "creates significant economic activity" that contributes substantially to local communities (Statistical Profile of Cape Breton, 2011). Across Cape Breton, there are approximately 244 registered farms (7% of NS farms), compared to 236 farms in 1996. This slight increase becomes significant when placed in the context of deep declines in the island's agricultural production during the twentieth century. By the nineteenth century, agricultural output in Cape Breton produced self-sufficiency for inhabitants along with a small surplus for export (Beaton, 1995; Howell, 1980). Farming activity peaked around 1891, then decreased sharply from 1891 to 1911 and 1941 to 1951 (Beaton, 1995, p. 7; MacKinnon, 1989, p. 7).

Declining participation in agriculture reflects changes associated with industrialization, including importation of cheap flour and commercial foods and population migration from rural communities to the industrial region of Cape Breton for employment in coal-mining and steelmaking (Beaton, 1995; MacKinnon, 1989). Farming activities continued to decline in subsequent decades, decreasing by 19% from 1981 to 1995 (Beaton, 1995). Growth in farm start-ups must also be considered in light of a 10.1% decrease in the island's population between 1996 and 2006 (CB Partnership, 2012, p. iv). The recent emergence of new farms thus suggests renewed interest and involvement in food production.

Presently, all Cape Breton farms are relatively small operations: 45% report incomes of less than $10,000 and 21% report farm incomes of $10,000 to 24,999. The majority of these farms raise beef or dairy cattle along with smaller numbers of farms producing specialty crops, field crops, poultry and eggs.[1] Twenty-three percent of farms are less than 70 acres and 16% are over 400 acres. The largest category in terms of acreage accounts for farms between 180 and 239 acres (18%) while remaining farms are smaller than 70 acres. In addition, approximately 44 farms are unregistered operations earning receipts of less than $2499 (Statistical Profile of Cape Breton, 2011).[2] These numbers indicate that participation in agriculture is increasing (despite deep declines earlier in the twentieth century)[3] and that small farms contribute significantly to Cape Breton's agricultural productivity.

Cape Breton's agricultural advantages include cheap, available land, the presence of natural pollinators, and the moderating climate effects of proximity to the ocean (Smith, 2015). Climate, however, also presents challenges with generally windy conditions, exceptionally variable annual, and even daily, weather conditions, and a short growing season. Soil poses similar advantages and disadvantages: Cape Breton's soil has not been contaminated by chemical fertilizers and pesticides meaning farmers can obtain immediate organic certification for their operations, an advantage over their counterparts in regions practicing more intensive industrial agriculture. Yet participants expressed that soil quality is poor on most parts of the island and patience and intensive labour are required to establish arable farmland. Cape Breton's geographical isolation and environmental conditions thus offer unique opportunities and significant obstacles that make the island both an important place for nurturing ecological food practices and a difficult place for farmers to earn a living.

At a glance, traditional food practices in Cape Breton—primarily based on meat, salted fish, potatoes, and root vegetables—may appear mundane and perhaps unpalatable to sophisticated contemporary tastes, but the island's population and culinary traditions are diverse

[1] Beef farms account for 32% of all farms in CB and dairy farms for 14%. Specialty crops include ornamentals, maple syrup, honey, etc. (Statistical Profile of Cape Breton, 2011).
[2] The Department of Agriculture does not distinguish between conventional and organic or ecological farms, making exact calculation of ecological practices difficult.
[3] During the economic boom of the early twentieth century, many rural inhabitants moved to industrial Cape Breton to work in coal mines or steel manufacturing (Morgan, 2009). In addition, advances in transportation enabled importation of cheap, commercially produced foods. The number of farms on Cape Breton Island decreased from about 2000 to 200 in approximately 60 years (DOA Representative, 19 February 2015).

and the discourse of "good food" is changing. Cape Breton may be well positioned to capitalize on a resurgence of interest in grass-fed beef and dairy, pasture raised pork, free-range chicken and eggs, and fermented foods, all of which are central to traditional diets around the world (Shanahan, 2009; Teicholz, 2014). As one research participant explained:

> We have a short growing season but we do grow things very well here because we don't get the high heats. This is a perfect place for livestock production; for pasture based livestock production, Cape Breton is one of the best places in the world. We just don't do it; we used to, just on this loop here there was 7 or 8 farms… (Farmer, 23 June 2014).

In addition, fishing remains an important industry in Cape Breton despite the collapse of the Atlantic cod fishery since the 1990s. Lobster, crab, scallops, haddock, and halibut (along with other species) are well known traditional local foods that have already been marketed to attract visitors to the island (Beaton Institute, n.d.; 1981; 1988). Developing sustainable practices within these industries is an avenue for building local economies and marketing the island's heritage and culture to potential tourists.

Conflicting perspectives among producers, consumers, and advocates of local food

As food cultures and politics have gained prominence in broader realms, interest and involvement in food practices have intensified in Cape Breton. What were once the dispersed activities of individuals have coalesced in recent years in several significant developments. In 2012, a group of Cape Breton residents convened to explore collaborative ways "to create a more robust and sustainable community-based food system" (Reynolds & Lake, 2013, p. 2). The group's efforts resulted in the establishment of a community food network to enhance public awareness, foster relationships, and promote policy changes to support local food initiatives (Reynolds & Lake, 2013, p. 4). Members include government representatives, healthcare professionals, farmers, and members of nonprofit organizations, farmers' markets, food banks, and food-related industry. The formation of the Cape Breton Regional Municipality (CBRM) Local Food Network is a significant development in Cape Breton's ecological food movement; however, the network is concentrated in the CBRM while most farmers and local food consumers are in more rural parts of the island. Some producers and consumers have suggested that limited membership impedes the network's significance and effectiveness. A local advocate explained:

> So there's a group in Sydney that's been working at creating a local food network …and there's some interesting discussions that come up with that of course….but there's a little back and forth because the majority of farms in Cape Breton are not from CBRM, but the majority of people are, so it's like how do we bridge that

> gap, right?... a lot of the farmers tell me it's really a struggle to sell in the CBRM too because in the rural communities people seem to be only one or two steps removed from that farming background so either they farmed as kids or their grandparents farmed…and they understand the work that goes into it so they understand if the price might be a little bit more…. And in CBRM I think it's a little bit different because people have more of an industrial background…and they don't have that direct connection and also maybe they don't understand the work that goes into the farming (Community Organizer, 21 August 2013).

Despite its limits, the local food network exemplifies the growing interest in ecological food practices, which have expanded across the island since its establishment. Subsequent developments include the creation of an island-wide food distribution hub and a local food website (cblocalfood.ca).[4] These initiatives facilitate networks among producers and connections to consumers, relationships that are hampered by Cape Breton's geographically remote location and dispersed rural communities.

Local food advocates in Cape Breton—like those in many communities—are for the most part well educated and relatively affluent. Encouraging broader participation is challenging because many people perceive local, organic food as expensive and variable in terms of availability and quality (Community Organizer, 21 August 2013; Farmer 1, 25 October 2013). In many cases, the price of locally produced foods compares favourably with retail prices, so assessments of cost may reflect the value placed on convenience and predictability:

> … and in a lot of cases we pay a lot less for local food but that's not the perception…. and it's all about convenience. So for example, we buy our beef at $4.25 a pound but we buy half of a cow and we freeze it. So I don't know how much a steak would be in the grocery store a pound but … it's significantly more expensive so I know we really save a ton of money but when people hear, 'oh my god, you spent $700 for a side of beef,' you know because people are so used to shopping a little bit at a time and just having that convenience of getting whatever you want when you want it and not having to store anything, put anything away (Community Organizer, 21 August 2013).

Cape Bretoners may also resist ecological food practices because food production on the island historically has been arduous and unprofitable work undertaken out of necessity, where there were few employment options and limited access to urban centres: "…most of Cape Breton, the

[4] The Pan Cape Breton Local Food Hub was formed in 2013. According to its website, the association is directed by the Nova Scotia Department of Agriculture, administered by Inverness County representatives, and supported and informed by food producers and consumers, including restaurants and institutions, by municipalities and federations of agriculture across Cape Breton, and by Healthy Eating Active Living (HEAL) Cape Breton, Destination Cape Breton, and the NS Department of Economic and Rural Development.

industrial area of Cape Breton, escaped the farms and I think there is a thing where we came here to do industrial work and I think there's a mindset against the old-fashioned farm. A lot of people grew up on farms and all they think of is drudgery…" (Farmer, 23 June 2014). Advancements in food preservation and transportation, including roadways and construction of the Canso Causeway (1955) linking Cape Breton to mainland Nova Scotia, brought choice and abundance to Cape Breton consumers that many are hesitant to relinquish.

Importantly, however, Cape Breton's food movement is strengthened by the persistence of traditional knowledge among rural inhabitants and of practices such as hunting, fishing, and berry picking. The island appeals to a young generation of food activists who have purchased land and begun small farms in recent years (Farmer, 25 October 2013; Community Organizer, 21 August 2013; Farmer, 28 April 2015):

> And there are people, a lot of people who have connections here who would like to find a way to come back so I think that's encouraging. And you've got that whole generation that's sort of the next generation of—I don't know what you want to [call them]—'neo-hippies' or something (laughs) but there is that, there's a whole age group that are very, very interested in those old skills and whole food and real food (Farmer, 25 October 2013).

These involved cultural participants are energetic and articulate proponents of local food. Thus, while consumer demand guides sustainable food developments in many regions—in some cases creating expectations that conflict with producers' needs and values—producers are key players in Cape Breton's food movement and their dedication and knowledge enriches efforts to expand local, ecological food practices. Their stated challenge is enlarging demand for their products and simultaneously meeting the expectations of their expanding consumer base (Community Organizer, 21 August 2013).

Tensions between conventional and ecological food practices: Government, industry, and policies

Consumerist discourse, however, remains central to local food promotion in Cape Breton as food producers, small businesses, healthcare professionals, and government representatives urge community members to support local farmers and reject commercially produced and scientifically processed foods. Such strategies are important; however, my explorations reveal that various stakeholders have differing views of what constitutes "local" and "healthy" food and of why they are important. For ecological farmers, healthy foods are those produced locally through organic practices. Cape Breton's fields and forests are most easily adapted to livestock production, thus locavores often encourage consumers to buy animal products—meat, poultry, butter, eggs—that are grass-fed and free-range, and to shop at farm gates or visit farmers' markets in order to support marginalized producers and sustainable practices (Community

Organizer, 21 August 2013; Farmer, 28 April 2015). Government representatives, healthcare professionals, and retail grocers, on the other hand, may be more concerned with changing people's diets to include less meat, more fresh fruits and vegetables, and lower fat or more "good" fats (as opposed to butter) than they are with the practices used to produce these foods. They typically define local foods as those produced in Nova Scotia without distinguishing between conventional and ecological techniques:

> [The government] wants more tax revenue to go into the provincial coffers so anything we can do to make farms more profitable and have them make them more money, organic, conventional, whatever, it doesn't matter. Everything is treated equally…. I think there's a place for both and in the end it's the consumer that's going to decide (DOA Representative 1, 19 February 2015).

The Nova Scotia Department of Agriculture (DOA) establishes rules for organic certification but does not interfere with industry regulation of conventional farming. DOA representatives emphasize that policies and regulation exist to protect consumers and ensure food safety. Proponents of ecological food practices acknowledge the importance of food safety and agree that provincial funding opportunities can assist local producers; however, they criticize the bureaucratic complexity of policies and programs that encumber some farmers attempting to access financial assistance (Community Organizer 21 August 2013, Farmer, 25 October 2013, Farmer, 23 June 2015). They also insist that the distinction between organic and conventional farming is significant and that governments' inattention to the particular challenges faced by small-scale, organic producers is unhelpful and frustrating:

> [A]lmost all the farms in Cape Breton really are practicing organic practices. Not a lot of them are certified organic but that again is a protest against the government because the government took over the regulating organic and now it's quite expensive. And a lot of them don't value the process anymore because you see organic stuff from China and whatever, but a lot of them are following organic practices… (Community Organizer, 21 August 2013).

Disregard for organic certification may reflect negative views of distance, scale, and authority, yet such criticism also questions the bureaucratic process that makes certification intimidating and expensive.

The predominance of small-scale organic farms is one of Cape Breton's unique advantages for enlarging ecological food practices. Yet local foods available in grocery outlets are, for the most part, conventionally grown on relatively large farms because they are distributed from a central location on mainland Nova Scotia and many local farmers cannot afford to ship their products off-island for grading and redistribution (DOA Representative, 19 February 2015; Farmer, 28 April 2015). Government involvement in agriculture offers some support to alternative food producers but ultimately constrains organic production with

bureaucratic processes. Relations between ecological and industrial producers, on the other hand, are more contentious because conventional producers create and enforce regulations that disadvantage ecological farmers:

> They oversee our production and they set the rules that we have to produce by, but we're kind of disenfranchised with them because we have no vote, we have no appeal process. Only conventional growers who hold quota have a vote so because we're a special license holder we have no say in the regulations that they make to govern us and they can change them with the stroke of a pen and they have. So it's a bit of an adversarial relationship; it has been right from the start They didn't want us to exist but there was a fellow in the Valley who was doing it and he said look, this is what I'm doing; right now it's contrary to the rules, we need to look at this because there is a demand. So they were basically told you have to allow free range so figure out a way to allow it, so it's been an uneasy (laughs) you know. You've got the conventional growers, it's not that we're a threat to their market because…[a]ll the free range chicken that's produced in Nova Scotia is less than 1% of the chicken that's consumed…but it's the perception that if people are wanting free range what's wrong with the way the conventional is grown…. So rather than take a close look at the way that they're producing their chicken and what it is that people find objectionable, it's easier just to try and quash the existence of free range. That's kind of been the tack that they've taken so it's been an uneasy relationship (Farmer, 25 October 2013).

Relations among divergent participants in local food are complex and sometimes conflicted, yet all employ concepts such as "fresh" and "local" to entice buyers and frame "buying local" as contributing to sustainable community economies.

Farmers, tourists, and restaurateurs: cultural and economic power

As demand for local, organic food grows (Farmer, 25 October 2013; Farmer, 28 April 2015), local and provincial representatives have recognized the revenue potential of expanding agriculture. Demand for sustainable local food also shapes the decisions of tourism executives in government and business, in the context of regional and national responses to global interest in food cultures and politics. As foodie cultures and alternative food movements gain global momentum, tourism promoters in Cape Breton have incorporated "local and traditional food"

into their marketing campaigns to enhance the island's appeal as a tourist destination.[5] Culinary tourism presents opportunities for showcasing local distinction, and proliferation of tourism destinations intensifies competition and encourages tourism promoters to accentuate the distinctive features of particular communities in order to attract visitors. As cultural participants engage with notions of traditional, sustainable, and local foods, they enact and express individual and collective identifications. Recognition of "authentic" and "traditional" foods can validate local identities, and the promotion of non-dominant culinary practices to cultural outsiders can encourage appreciation for local communities and their diversity (Long, 2004; Moskwa, Higgin-Desbiolles, & Gifford, 2015; Sims, 2009).

Government and business efforts to support local food tourism are evident in promotional campaigns and island branding that showcase iconic foods as representations of traditional cultures and as a tourist attraction. Tourism offerings include increasing numbers of farmers' markets, food events such as strawberry festivals and lobster suppers, and locally themed menus in restaurants and bed-and-breakfasts. The Nova Scotia Tourism Agency (NSTA) promotes farmers' markets, food festivals, and locavore dining experiences in various communities across the province (novascotia.com). In May 2015, the NSTA website announced the resounding success of its first culinary workshop to teach food and tourism business operators about culinary tourism, experiential tourism, and the benefits of incorporating local food into their menus.

Cape Breton's official tourism industry association, Destination Cape Breton Association (DCBA), describes culinary experiences as an "economic driver" for the industry in its 2015-16 Strategic Plan, defining seafood and, in particular, lobster as Cape Breton's signature culinary tourism product (DCBA, 2015, p. 9). Public-private partnerships include *Taste of Nova Scotia*[6] while business initiatives include festivals such as *Right Some Good*[7]. The Department of Agriculture has developed a program named *Select Nova Scotia* to promote local food producers, farmers' markets, retail grocers, and restaurants offering locally sourced ingredients (selectnovascotia.ca). These initiatives parallel similar strategies throughout North America and the world and likely will proliferate as localities respond to increasing global interest in cultural diversity and experiential tourism (Bessiere & Tibere, 2013; Everett, 2012; Everett & Slocum, 2013).

[5] Destination Cape Breton Association (DCBA), Cape Breton's official tourism industry association, identifies culinary experiences as a primary focus for tourism marketing in its 2015 strategic plan and designates seafood and lobster as iconic foods. (Destination Cape Breton: Strategic Plan, www.dcba-info.com/wp/wp-content/uploads/2015/04/_DCBA2015Plan.pdf).

[6] *Taste of Nova Scotia* is public-private marketing association formed in 1989 to assist members' business operations by promoting culinary experiences at locations across the province. Members include food producers, processers, and restaurateurs dedicated to "showcasing the best culinary experiences our province has to offer." The association operates a website that offers recipes and tips, and information about members' establishments and food events and offers and information about food events (tasteofnovascotia.com).

[7] *Right Some Good* is an annual province-wide food festival created in 2011 that features renowned chefs who host "pop-up" culinary events in various communities drawing from local cultural traditions. Cape Breton hosts three events each year in early September.

Local food tourism can enrich social capital within host communities and affirm the value of local places and traditions (Dougherty, Brown, & Green, 2013; de Salvo et al., 2013; Sims, 2009). Social capital refers to strong social networks and bonds of trust and reciprocity (Putnam, 1993), qualities enhanced through close associations between food producers and consumers and connections between community members and natural environments. Participants in Cape Breton's sustainable food movement and in culinary tourism define local food in ways that authenticate their identities and communities through their engagement with ecological food practices (Everett, 2012).

Several businesses have developed meaningful relations with local food producers that demonstrate the potential of local food tourism to benefit all participants. The Telegraph House Bed and Breakfast (telegraphhouse.baddeck.com) and the Chanterelle Inn (chanterelleinn.com) source ecological producers in the region and offer varying menus based on the seasonality and availability of ingredients. The Chanterelle Inn includes a list of suppliers on its menus, along with their locations and distance from the inn. Kiju's and Flavor 19 restaurants in Sydney also feature locally sourced ingredients for some of their fare and Flavor 19 hosts events to raise awareness of local foods and sustainable practices. In 2013, the restaurant hosted the opening dinner and weekly meetings for participants in a month-long local food challenge that now is held annually in September. During this time, Cape Breton food activist Alicia Lake follows a 100% local diet and challenges others to source 50% of their food locally. Flavor 19 offers daily specials made with local ingredients throughout the challenge.

The contributions of such initiatives extend to farmers and restaurateurs (among others) and include higher prices for local food products along with expanding social networks, enhanced social capital, and increasing economic opportunities for those involved in the food and tourism sectors (Dougherty et al., 2013). Lake describes her challenge to Cape Breton residents as a way of building community: "You're kind of building social capital, getting to know your neighbours and getting to know the different producers. You're supporting them, you're keeping money in this community, you're keeping jobs in this community, so you're really keeping people in this community at the same time as you're providing healthier food for your family" (Lake as quoted in Wadden, 2013).

Yet the benefits of local food tourism coexist with significant challenges that can impede possibilities for building social capital and establishing sustainable communities and economies (Everettt & Slocum, 2013). Alternative food movements and tourism development therefore raise questions not only of cultural identification and but also of power relations (Urry, 1990; Long, 2004). Critics argue that tourism development delivers amenities for tourists but often provides minimal benefits to host communities,[8] and that tourists typically possess greater economic and cultural capital than host cultures, which may be objectified by tourism representations. Such criticisms have merit; however, they posit tourists as passive recipients of

[8] John Urry (1990) and others have demonstrated that tourism typically offers seasonal, low-skilled, low-paying occupations and that tourism imagery frequently offers commodified stereotypes of host cultures.

promotional strategies and elide the complexity of tourism encounters with host cultures (Schnell, 2011). Tourists are acutely aware that they are targets of tourism promotions and actively resist commodified experiences by seeking more nuanced, intimate encounters with the people and places they visit (MacCannell, 2001).

Local food tourism can respond to such desires for authenticity by enabling visitors to engage with the distinctive heritage and culture of host communities (Schnell, 2011). The proliferation of farmers' markets, CSAs, microbreweries, and restaurants featuring local cuisine therefore may signify resistance to the homogenizing tendencies of globalization (Gibson-Graham, 2002) and "a conscious commitment to creating, preserving, and supporting local economic and social networks" (Schnell, 2011, p. 301).One Cape Breton farmer describes her involvement in ecological seed and food production:

> I don't see how it can't be [political]…because a lot of issues around seed or even around farming are issues of control—control of the industry and food sovereignty and stuff like that…. I don't actually have a problem with corporate seed production, I think it's fair to earn a living and corporations have a right to earn a living. They don't have a right to earn an unfair living or control resources, including gene resources that belong to the people if you want to get political about it…. the government is supposed to protect people's interests, that's what they're there for, that is a good thing, and some things shouldn't be left to the marketplace to protect. Because the marketplace will only protect the marketplace and there are some things for the common good which we and our government should be protecting because they are for the common good. So in that sense, yeah it's political (Farmer, 28 April 2015).

In addition, the class identifications and experiences of tourists and members of host communities are complex and heterogeneous. In Cape Breton and elsewhere, not all tourists are affluent and all have multiple roles, identifying as workers and community members in ways that may intersect with the standpoints of those they meet in tourism locales. Correspondingly, residents of host communities are—in various situations—consumers of places, images, and commodities. Both visitors and residents thus are cultural producers who actively shape the meaning of tourism encounters. Finally, local food tourism exemplifies "the middlebrow," a cultural sensibility that coincides with the emergence of consumer culture at the turn of the twentieth century (Rubin, 1992). Middlebrow culture educates and entertains, assuring moderate levels of refinement and erudition through the consumption of accessible ideas, artworks, and experiences. As a middlebrow practice, local food tourism offers consumers opportunities to acquire cultural capital by experiencing cultural (and in this case culinary) diversity (Radway,

1999; Rubin, 1992).[9] Critics disdain middlebrow culture for sustaining hierarchical relations by imposing the tastes, values, and practices of elites on less well-positioned cultural participants. Yet middlebrow culture also embodies a democratizing influence by disseminating cultural capital and encouraging engagement with and reflection on ideas and activities (Rubin, 1992). Local food tourism incorporates these tensions—for members of host communities and the visiting public— in its promotion of local, traditional foodways as "authentic" cultural performances and as experiences available for tourists' consumption.

Unequal power relationships further complicate outcomes of local food tourism initiatives in relationships between food producers and restaurateurs where restaurateurs typically hold significant power over farmers in local food networks (Dougherty et al., 2013). Professional chefs often act as "opinion leaders", promoting local food through advertising, staff recommendations, and culinary workshops, and their professional interests can conflict with those of producers when qualities such as appearance and consistency (central to consumer appeal) override commitment to sustainable production practices that require acceptance of varying ingredients and characteristics. In Cape Breton, this power imbalance plays out in restaurants and tourism establishments that use misleading language such as "we support local producers" to capitalize on the appeal of local food without sourcing menu offerings from small-scale, ecological farmers (Community Organizer, 21 August 2013). Incorporation of local food into restaurant offerings is also impeded by issues of supply and distribution, with restaurateurs emphasizing their need for low-cost, and dependably available ingredients (Inwood, Sharp, Moore, & Stinner, 2009). Food producers, on the other hand, require adequate compensation for their labour to remain operational and costs for ecological practices typically exceed those for conventional methods. According to one ecological food advocate:

> [F]or the most part, it seems like the restaurants that are using local food, it really is the upper end …but…there are some incidences of regular restaurants claiming to use local food but we know they're really not. So then their prices seem really low and it's kind of screwing up some of the other restaurants…. But there [are] so many class issues…a lot of the more elitist restaurants want to charge a premium price and they want to appeal to this elitist class but they pressure the farmers to lower their prices…. So you want a bigger profit up here and to appeal to people who can pay over a hundred dollars a night for each person but then you want the farmer to have to…try to come up with their mortgage payment and it's infuriating, for me it's maddening. It really pisses me off (Community Organizer, 21 August 2013).

[9] Joan Shelley Rubin (1992) offers a detailed analysis of the authoritarian and democratic tensions within the middlebrow's reassertion of cultural standards and embrace of consumer culture. Similarly, Janice Radway (1999) examines how the Book-of-the-Month Club promoted consumption of literary works as an expression of erudition, taste and status.

Effective networks require distribution hubs to connect farmers to tourism operators, ensuring access to food sources for restaurateurs and access to markets for food producers (Dougherty et al., 2013; Everett & Slocum, 2013). Formation of the Pan-Cape Breton Local Food Hub addresses supply and distribution by establishing a collaborative association of producers and consumers to develop appropriate infrastructure for gathering, processing, and apportioning local foods. Producers welcome new markets but express concerns about pressure to reduce prices without consideration for the costs involved in producing sustainable food (Community Organizer, 21 August 2013). Economic, ecological, and identification goals may conflict as cultural participants embrace local and ecological food for their particular purposes. Ambiguous definitions of local food further obfuscate understandings and stakeholder relations (Smithers, Lamarche, & Joseph, 2008): Does "local" refer to native foods traditionally produced and consumed within a particular geographic region? Or can local foods include those newly introduced to a region and those exported to cultural outsiders (Morris & Buller, 2003)?

Successful local food tourism initiatives typically coalesce around foods with local historical or cultural significance—i.e. foods with unique qualities related to local climate and environmental factors (examples in Cape Breton include snowshoe hare, smelt, blueberries, fiddleheads, and chanterelle mushrooms)—or foods embodying all of these qualities (Bessiere, 1998; Bessiere & Tibere, 2013, Everett & Aitchison, 2008). Effective strategies therefore must integrate the divergent interests and objectives of multiple participants, and in many situations the potential benefits of promoting local food as experiential tourism remain unrealized (Dougherty et al., 2013; Everett & Slocum, 2013). Attitudes toward food are resistant to change (Cook, Reed, & Twiner, 2009), thus understanding the history of food practices and traditions in Cape Breton may encourage meaningful local food tourism initiatives in this region.

Finally, evidence suggests that resident populations often resist tourism development when promotional strategies conflict with local values. Resistance may be strongest in regions with economies based on resource extraction where residents' identities' are closely tied to such occupations and tourism disrupts established identifications and cultural relations (Mason & Cheyne, 2000; Petrzelka, Krannich, & Brehm, 2006; Reed, 2003). The tensions surrounding official and colloquial understandings of historical and cultural significance are exemplified by a Parks Canada reconstruction of a French military fortress at Louisbourg in the 1960s to offset a downturn in coal-mining (Corbin, 1996; Galt, 1987). Louisbourg residents felt little connection to the living history site and some resented the erasure of subsequent history to commemorate a fledgling French colony as a symbol of unified Canadian identity. Yet relations between the fortress and the town have improved over time and, in general, Cape Bretoners' identification with values of tradition, rurality, and hospitality has encouraged acceptance of tourism. Promotion of the island's industrial heritage in the Glace Bay Miners' Museum and the music of *Men of the Deeps* has fostered identification with tourism imagery among many inhabitants.

Local food tourism may provide similar recognition of agricultural and fishing traditions. World class events such as *Celtic Colours*[10] and enduring community endeavours such as the Louisbourg Crabfest demonstrate that tourism can validate marginalized groups by enhancing visibility in the public sphere and appreciation within the dominant culture (Boniface, 2001; Greenwood, 1989; Urry, 1990). The popularity of Cape Breton's musical heritage in the broader culture indicates that events featuring music and food traditions may be key to meaningful and profitable tourism development.

Cape Breton's ecological food movement thus is shaped by broader discourses that overlap and conflict, giving rise to tensions—particularly those between economic and ecological objectives—that constrain possibilities for enriching local communities and challenging the prevailing food system. Ecological food participants in Cape Breton face significant challenges and distinct advantages. The future of local-organic food and culinary tourism remain uncertain, but successful strategies in some communities indicate that possibilities exist for expanding such endeavours in this region.

Conclusion

Developments in Cape Breton demonstrate the entanglement of competing discourses in cultural practice and the ways in which competing discourses and unequal power relations impede efforts to build collaborative networks and enact social and economic change. This study has shown that ecological food practices, although peripheral, are becoming more prevalent across the island. Farm start-ups are typically small-scale and focused on traditional products and sustainable methods. In addition, demand for local, organic food is increasing, prompting restaurants and tourism operators to explore the cultural and economic benefits of promoting local and traditional foods. Culinary tourism has proven successful in other regions (Bessiere & Tibere, 2013) and has potential in Cape Breton, but the island's history of economic marginalization also engenders a desire for inclusion and access to mass-produced convenience foods and global ethnic cuisine.

Paradoxically, then, rural regions such as Cape Breton that have not been fully incorporated into global capitalism have significant resources—open fields, indigenous plant life, family farms, hunting and gathering traditions, networks of social relations and barter exchange—to establish ecological economies in contexts of globalization. Yet residents of these regions may be indifferent to or ambivalent about such alternatives, aspiring instead to participate fully in global capitalism and achieve its ideals of convenience, choice, and affluence.

[10] *Celtic Colours* is an annual, island-wide, international music festival celebrated over a 9-day period in October since 1997. The highly successful festival showcases local cultures, attracts over 10,000 visitors, and features musicians from more than 24 countries.

Such attitudes are understandable among marginalized populations but nonetheless raise urgent questions of social and environmental responsibility.

Increasing demand for local, sustainable food, alongside unequal power relations between producers, consumers, and policy makers can place pressure on producers to expand operations and reduce prices, creating conflicts between ecological and economic objectives. When linked to tourism, commodification of traditional foods and promotion of "fashionable" foods as "local" can be alienating for communities, provoking resistance to development strategies. Yet, as I have argued, sustainable food movements in general and local food tourism in particular present opportunities for building social capital within rural communities by enhancing collaborative networks, building shared knowledge, and bringing together people with diverse backgrounds, interests, and abilities (Dougherty et al., 2013; Porter & McIlvaine-Newsad, 2013).

Where the divergent expectations of farmers, tourism operators, and consumers are effectively negotiated, local food tourism offers meaningful ways to build local economies, protect local environments, and enrich cultural autonomy (Glowacki-Dudka et al., 2013; Sims, 2009; Starr, 2010). Food practices are fundamental to life, intimately ecological, and profoundly social. Food discourses matter because discourse acts in the world, shaping and constraining ideas and actions. Untangling competing food discourses to encourage ecological food practices is crucially important to imagining and establishing responsible and meaningful social and economic relations in Cape Breton. In illuminating the complexity and possibilities of such relationships, this study offers insights to assist further studies into similar efforts in other locations.

Future directions

This exploratory study represents the first stage of a larger project that examines developments in ecological food on Cape Breton Island. It illuminates the complexities of food practices and, in so doing, provides a background for more deeply ethnographic investigations into various aspects of Cape Breton's alternative food movement. My current and future research will elaborate on the numerous perspectives introduced in this study, including the experiences and identities of food producers, local food tourism operators, and the many community members who support and shape their activities.

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Original Research Article

Constituting community through food charters: A rhetorical-genre analysis

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Abstract

Communities across Canada are increasingly developing food charters, with at least 22 regional charters published in Ontario alone. As a rhetorical genre, food charters are persuasive actions that articulate not only the kind of *food system* to which a community aspires, but also the kind of *community* that it aspires to be. We argue that Ontario's food charters play an important role in constituting a sense of community identity and values through the rhetorical action of the genre itself. We analyze how this is accomplished through two rhetorical features, the naming of community and the listing of community priorities, showing how these features simultaneously obscure and reveal ideological tensions and logical incongruities within each community's vision for its food system. Our analysis illustrates how the genre of the food charter both responds to and shapes the diverse, possibly conflicting values that inform food policy and food security initiatives in Ontario, and it offers insight into how the genre itself may inadvertently constrain the action it is intended to perform.

Keywords: food charters; food policy; public health discourse; critical food studies; discourse studies; genre theory; rhetorical analysis

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Introduction

Food charters, as a genre, are intended to be non-binding visioning documents that address issues of food security and food sustainability within communities. Following the lead of Toronto, which endorsed the first Canadian charter in 2001, an increasing number of communities have crafted or are currently crafting their own charters as part of the growth of municipal and regional food policy initiatives across Canada (MacRae & Donahue, 2013, p. 22). Ontario alone currently has at least 22 completed regional food charters, with others under development.[1] Each of these charters addresses a community defined not primarily by municipal boundaries but by the regional boundaries of one of the province's 36 Public Health Units (PHUs).[2] According to MacRae and Donahue (2013), significant factors motivating the development of Ontario's regional charters include the growing inclusion of food security within the province's public health program requirements along with recent revisions to its Public Health Standards (p. 22).

As rhetoricians of health and medicine and as critics of neoliberal public health discourse, we are interested in how Ontario's PHUs have begun to incorporate the discourse of local food into their promotion of healthy lifestyles (Derkatch & Spoel, 2015). Through this research, we discovered that *food charters* figure significantly—though ambiguously—within PHU-linked communication materials that promote "local food" as a valuable component of healthy living and healthy communities. Although Ontario's food charters typically are composed by multi-sector/multi-participant community networks (e.g., local food councils), PHUs have been and continue to be closely involved in their development, whether by leading their creation or by participating actively in the networks doing so.

Ontario's food charters address matters of community health and well-being in multiple ways. As "aspirational" documents aimed at guiding the development of local food systems (Runnels, 2012; Dillon Consulting, 2013), they promote the ideals of food security, healthy eating, a healthy environment, and a healthy economy for the whole community. We argue in this paper that they also play an important role in fostering a sense of *community identity and values* through the rhetorical action of the genre itself. As an emergent text type with a now-conventionalized form and content, the food charter genre contains embedded values about the communities that produce it. Understanding how these values are produced and how they affect the communities they address yields important insight into the ways that the genre of the food charter itself may inadvertently constrain the action it is intended to perform.

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[1] Regions and cities with completed charters include Bruce Grey; Durham; Elgin-St. Thomas; Guelph-Wellington; Halton; Hamilton; Huron County; Kawartha Lakes; Kingston, Frontenac, Lennox, and Addington; Leeds, Grenville, and Lanark; London-Middlesex; Northumberland County; Oxford County; Parry Sound and Area; Sarnia-Lambton; Simcoe County; Sudbury; Thunder Bay; Toronto; Waterloo Region; Windsor-Essex; and York. Charters currently under development include Algoma District; Nipissing and Area; and Peel Region.

[2] Public Health Units (PHUs) provide Ontarians with health promotion and disease prevention programs on, for example, healthy living, communicable diseases, vaccination, food safety, and child growth and development. There are 36 PHUs across Ontario, each governed by a Board of Health and jointly funded by local municipalities and the provincial government (Ontario Ministry of Health and Long-Term Care, 2014).

Existing policy and scholarly reviews of food charters emphasize their role in building community—particularly because, proponents suggest, charters are necessarily composed collaboratively by multiple local stakeholders who, together, establish the community's vision of its desired food system (Dillon Consulting, 2013; Hardman & Larkham, 2014; Jaquith, 2011; Metzger & Aurini, 2013). By contrast, from a rhetorical perspective (which focuses on how meaning and action are produced in discourse), we are led instead to inquire how food charters work to *constitute* community identities and values, rather than simply to reflect existing identities and values.

In this article, we approach food charters as persuasive actions that articulate not only the kind of *food system* to which a community aspires, but also the kind of *community* that it aspires to be. We see the food charter as an epideictic genre, a persuasive form that operates in the realm of values through the actions of praise and blame. We propose that one of the food charter's main functions is to praise the community to itself: to construct for the community an aspirational vision of itself as possessing a shared identity and coherent set of shared values for guiding the development of its local food system. As our analysis below demonstrates, the genre enacts this epideictic, aspirational function through two significant discursive features: *naming who the community is* and *listing the community's shared priorities* for its regional food system. By analyzing closely how these two rhetorical features operate, we show that both simultaneously obscure and reveal ideological tensions and logical incongruities that inform the community's vision for its food system.

We begin by outlining our key topics and texts and our theoretical approach of rhetorical-genre analysis (Bawarshi & Reiff, 2010; Miller, 1984). In the analysis that follows, we draw on Burke's (1966) concept of "terministic screens" to trace how community is named in Ontario food charters as a way of understanding how these documents shape and sometimes cloud community identity. We then work with Perelman and Olbrechts-Tyteca's (1969) model of quasi-logical argumentation to show how lists in food charters create a sense of coherent connection among the diverse and potentially conflicting values and priorities within each community's vision for its food system. Our analysis illustrates some of the specific ways in which food charters, as a genre, both respond to and shape the diverse and possibly incompatible range of values that informs contemporary public discourse on health, local food, and food security in Ontario.

What are food charters?

Over the 15 years since Toronto advanced the first food charter in Canada, the genre has stabilized enough that we can now identify some of its characteristic rhetorical features and the values embedded within it. Although there are variations in form among individual food charters, they are typically one to two pages long and begin with a preamble that articulates a set of core

beliefs, rights, and goals (see examples in Figures 1 and 2 on the following pages).[3] The opening statement is followed by an overarching list of core values for the community's food system. Under each of the core values are bullet-point lists of specific objectives or endpoints for what the enactment of those values would entail.[4]

The character and purpose of food charters are harder to pinpoint but researchers, policymakers, and food-system stakeholders generally agree that a food charter is a *vision statement* that articulates a community's "values, principles, and priorities" concerning its food system (FoodNet Ontario, n.d.; see also foodcoreLGL, n.d.b). As vision statements, food charters are aspirational documents in the sense that, as Runnels (2012) argues, they "are not typically directed toward action but are declarations of important beliefs that help set the tone for other policy documents" (p. 15). Similarly, Dillon Consulting (2013) notes that,

> Food Charters do not usually contain prescriptive policy statements and are not binding in any fashion. Indeed, Wayne Roberts, a recognized food policy expert…stressed that Food Charters should be "purely aspirational."…Food Charters are intended to offer decision-makers, community groups or individuals an overall guide for shaping food-related policy and projects. (p. 3)

We argue, however, that although food charters do not provide "prescriptive policy statements," they do prescribe certain values that are ultimately intended to influence policy.

One such motivating value, key for this paper, is the principle of *food security* which, according to the UN Committee on Food Security (2013), means "when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (p. 2). Jaquith's (2011) assessment of Canadian food charters foregrounds the centrality of this value to the genre: "A Food Charter is a statement of values, principles, and priorities for a just and sustainable food system that will promote health and *food security* for all" (p. 6, emphasis added).[5]

[3] Of 22 Ontario food charters, 17 are 1-2 pages long, formatted as either a full-page letter or three-panel brochure. Four of the remaining charters are 4 pages and one is 6. All but one of these 22 charters begins with a preamble.
[4] All but one of the 22 charters contains a list of core values or priorities with sub-points.
[5] Of the 22 charters we analysed, 10 explicitly use the phrase "food security" or "community food security." For fuller discussion of the concept of "food security" in Canada, see Martin and Andrée (2014); Power (2008).

Guelph-Wellington Food Charter

The United Nations Covenant on Social, Economic and Cultural Rights acknowledges the right for all to have access to adequate food. Furthering this basic tenet, we will work together to build a vibrant, sustainable, food-secure community. We, the undersigned believe the following principles are key priorities as we create a just and sustainable food system for all. As signatories to this food charter, we commit to entering into a dialogue on actions based on these principles.

Because we value **Health**, we support…

- Public policy that recognizes food's contribution to physical, mental, spiritual, and emotional well-being.
- Neighbourhoods that encourage walk-able and bike-able access to healthy food.
- Strategies to prevent and manage chronic diseases through access to affordable healthy food.

Because we value **Education**, we support...

- Initiatives that develop food skills.
- Programs that train future farmers.
- The integration of food literacy and gardening into school curricula.
- Public education about the connections between our health, the environment, and our food choices.

Because we value **Sustainable Economic Development**, we support …

- Prioritizing production, processing, distribution, and consumption of local food.
- Promoting our region as a food, agricultural, and culinary destination.
- Advancing food and agriculture research and innovation for alternative food systems.

Because we value **Environment**, we support…

- The preservation of local farmland that protects watersheds and wildlife habitat.
- The growth of food production methods that sustain or enhance the natural environment in both rural and urban settings.

Because we value **Culture**, we support…

- Celebrating and promoting respect for traditional, cultural, and spiritual food diversity.
- Enhancing the dignity and joy of growing, preparing and eating food.
- Strengthening links between rural and urban communities.

Because we value **Social Justice**, we support…

- Identifying healthy food as a social good and ensuring access regardless of income.
- Championing a fair wage for the production of food, and a safe and respectful environment for all food workers.
- Helping to ensure land access for new farmers for the growing of food.
- Advocating for income, education, employment, housing and transportation policies that support access to healthy, sustainable food.

If you support the Charter's values, please sign our petition.
Go to www.gwfrt.com or write info@gwfrt.com

Figure 1: Guelph-Wellington Food Charter, Guelph-Wellington Food Roundtable (2011). Reprinted with permission.

Figure 2: Thunder Bay Food Charter, Thunder Bay Food Action Network (2008). Reprinted with permission of the Thunder Bay District Health Unit.

Methodology: A rhetorical-genre approach to food charters

For our analysis, we gathered all 22 currently published food charters in Ontario.[6] This sample represents almost two-thirds of Ontario's 36 PHU areas and includes charters from all regions (Central, Southeast, Southwest, Northeast, Northwest, and Greater Toronto) and from rural, urban, and mixed rural-urban communities. The majority of these charters have been produced since 2010.[7] In the first stage of our research, we independently reviewed the charters to determine what recurring features of the genre appeared most salient. This preliminary analysis led us to identify the constitution of *community identity and values* as a key social action of the genre, which is accomplished through the rhetorical features of *naming* community and *listing* priorities. We then systematically reviewed each of the 22 currently published charters to determine whether or not they possessed these features, and if so, in what terms (see Appendix). These features inform our analysis of community identity and values below.

Approaching Ontario food charters from the perspective of rhetorical-genre theory allows us to foreground the shared yet situationally distinctive features and functions of the rhetorical actions they perform. Rhetorical-genre theory approaches language-use as a form of action that shapes rather than simply reflects the world. A rhetorical approach to genre focuses on the "social action" that genres perform in their contexts of use (Miller, 1984). More specifically, genres can be understood "as typified ways of acting within recurrent situations, and as cultural artifacts that can tell us things about how a particular culture configures situations and ways of acting" (Bawarshi & Reiff, 2010, p. 78).

Analyzing formal and textual features of the genre allows us to understand, in part, *how* the social action of a genre is performed. We argue here that a key action performed by current Ontario food charters is to constitute community values and identities. At the same time, however, we find that the structural features of the genre itself may impede the very action that the food charter is intended to perform: namely, to produce meaningful social-structural change within the food system. Rhetorical-genre theory emphasizes that genres function as complex and contestatory sites of ideological expression and negotiation, especially within institutional contexts and discourses—such as, for example, healthcare agencies. Arguing that "ideology, as manifested in institutional practice, is fragmented and conflictual, so that no single, unadulterated ideological perspective prevails entirely" (Paré, 2002, p. 59), Paré claims that genres are key sites of ideological struggle within these contexts of "competing visions and values being advanced, challenged, negotiated, and altered" (p. 59). Our analysis below indicates that, although food charters, as a genre, constitute "community" as place of caring and sharing, they contain within them "competing visions and values" for that community that may impede their successful implementation within policy settings.

[6] This did not include charters under development (e.g. Nipissing and Area). See footnote #1 for a list of Ontario regions and cities that have food charters.
[7] The exceptions are Toronto (2001), Sudbury (2004), Thunder Bay (2008), and Durham (2008).

The rhetorical concept of meta-genre offers a particularly generative way of thinking about the social-ideological actions that food charters perform and how food charters operate within a larger network of interrelated genres. According to Giltrow (2001, p. 190), meta-genres are "situated language about situated language," such as institutional guidelines or policy directives. Meta-genres enable action but they also constrain it, "ruling out certain kinds of expression, endorsing others" (Giltrow, 2001, pp. 190-191). Charter documents, for instance, function as meta-genres. As McCarthy (1991) notes in her study of diagnostic manuals in psychiatry, "The charter document of a social or political group establishes an organizing framework that specifies what is significant and draws people's attention to certain rules and relationships. In other words, the charter defines as authoritative certain ways of seeing and deflects attention from other ways. It thus stabilizes a particular reality and sets the terms for future discussions" (p. 359). As charter documents intended to guide community food policies and practices, food charters therefore function as a meta-genre because they are situated rhetorical actions aimed at shaping other rhetorical and material actions (e.g., community policies and actions).

One such action performed by food charters is the act of naming: they shape how the community names itself and its values. This notion of community is the point out of which emerge all future actions anticipated and entailed by the food charter as a meta-genre. At the same time, however, as sites of ideological struggle (Paré, 2002), meta-genres may enact and contribute to—rather than resolve—"dissonances and contradictions" within the larger institutional or socio-political contexts from which they arise and to which they respond (Schryer & Spoel, 2005, p. 257). As our analysis of food charters illustrates, these kinds of tensions can be traced, at least in part, through the terminologies and argumentative structures that the documents employ to characterize community identity and values. We take up each of these elements—terminologies (as "terministic screens") and argumentative structures (as "value-lists")—over the remaining sections of this article.

Analysis

Who is "community"? Terministic screens in food charters

Burke's (1966) concept of "terministic screens" helps to explain how the notion of community works rhetorically in food charters because his concept foregrounds the role of language in filtering or shaping our understanding of reality. The different terminologies that rhetorical actors use to name the world work like photographic filters by reflecting, selecting, and deflecting different aspects of reality (Burke, 1966, p. 45). Analyzing terministic screens illuminates the specific motives, values, and assumptions that shape individual or group worldviews (Spoel & Den Hoed, 2014). In the case of food charters, the terminologies used to

describe who the community is at once reflect, select, and deflect particular interpretations of who the community is assumed to be.

One compelling feature of the food charter genre is that charters are not only created for communities but also by communities—or, more accurately, by community stakeholders. The community is therefore both the author and the primary intended audience of the genre.[8] How then do these documents name these two overlapping but distinct senses of community? In this section, we examine the terministic screen of community by tracing how food charters invoke specific and varying characterizations of community as both author and addressee of the food charter genre.

Building values; building community

Most discussions of food charters praise charters as a means both to represent community values and to strengthen community engagement and relationships. According to Jaquith (2011), "a Food Charter represents the *voices and visions of community members*, resulting in a *community-owned* and locally focused action plan to improve food access and sustainability" (p. 6, emphasis added). Reflecting a shared "vision" for a community's food system, food charters are therefore conceived, primarily, as the antecedents for and motivators of collective action through policy development and implementation, guided by the values of the community itself.

In addition to facilitating value-driven action, food charters are also viewed as helping to connect and build community. The process of developing a food charter necessitates collaboration among individuals and groups with diverse and possibly competing interests to create one shared vision or set of values. As *foodcoreLGL* (n.d.a), the Leeds, Grenville, and Lanark food charter working group, puts it, "A Food Charter *brings together people and organizations* that have interests in different parts of the food system and helps them *to develop a common language and vision* so that they can work together" (n.p., emphasis added).

Once developed, food charters are intended to guide policy and programming that foster community engagement and connection in a range of food system activities (e.g., bringing people together to celebrate food and to make community gardens; fostering relationships between producers and consumers). On the development of its own charter, for example, York Region (2012) explains that a food charter is "a tool to connect and engage all community stakeholders in working together to actively shape healthier . . . communities." Its main benefits include "Increased cooperation and collaboration stemming from the food charter creation process" and "Increased civic engagement" across the community once the charter has been developed (p. 5).

[8] In Runnels's terms, these are the "stakeholders" and the "beneficiaries" (p. 17).

"Community" as rhetor

The community as author, or rhetor, of the food charter—that is, those who have collaborated in a charter's creation—often is not identified explicitly.[9] While several charters do name the community groups and representatives who created the charter or oversaw its development, more than half of Ontario's published charters require searching beyond the documents themselves to identify the specific stakeholders involved in their production.[10] The emergent trend of compiling online "signatory" lists that complement a charter but exist independently from it further complicates questions of authorship.[11] Are the organizations and individuals who endorse a given charter by adding themselves to these online lists its *rhetors*—its agents—or its *audience*—its intended beneficiaries? Or are they both?

Within Ontario charters, the community that authored each is most commonly identified inclusively, as a collective, by first-person plural pronouns:

> *our* community….*we* commit.…*we* value
> (Sarnia-Lambton, n.d.; emphasis added)
> *We* believe….*We* value…. (York Region, 2012)
> *Our vision*….*we* believe….*our* farmers
> (foodcoreLGL, n.d.a)

Notably, a number of recent Ontario food charters adopt the recurring phrase *Because we value/believe x, we support y* to introduce each of the community's priorities for its food system. The following examples illustrate this phrasing (emphasis added throughout):

> "Because *we* value Education, *we* support…initiatives that develop food skills" (Guelph-Wellington, n.d.)

> "Because *we* value HEALTH, *we* support…food as an essential component to physical, mental, emotional and spiritual well-being" (Sarnia-Lambton, n.d.)

[9] This is contra Runnels (2012), who recommends that communities developing food charters clearly identify the organizational source of the document as well as its specific authors to foreground their differing needs and interests rather than obscure them, to reduce potential tensions or conflicts among them. We reflect on the implications of this lack of identification in the conclusion.

[10] Six charters identify specific stakeholders or community representatives involved in their creation; eight identify a collective author such as a food policy council or network; six include no explicit authorship attributions; and two indicate the City or municipality as authorizer but not necessarily as author.

[11] Four charters invite individuals and groups to endorse the charter online, whereas another includes a signature space on the document itself. An additional charter refers to "signatories" in its preamble but that seems to refer to the document's authors.

> "Because *we* believe in fair, environmentally sustainable, livable [sic], and economically profitable rural and urban communities …*we* support community economic development" (Waterloo Region, 2013)

The "we" in these examples is positioned as the authorizing agent of the charter and hence as holding the power to articulate what the whole community wants and needs, and what values it aspires to enact. The use of the first-person plural creates an inclusive tone, establishing a sense of community togetherness, personalization, and belonging. Its generality means that no one is explicitly deflected or excluded from "our" community. As a result, the line is blurred between the community representatives who have authored the charter and the broader community to whom the charter is addressed. Exactly who makes up "we" typically is not clear.

"Community" as audience

Given that the terms "we" and "our" ambiguously conflate the identities of community as rhetor and community as audience, how else—if at all—is the latter kind of community named in Ontario food charters? What kinds of people are included within each charter's scope as the "community" that it addresses? Examining from this perspective the relevant terms that name community reveals two main types of terms: on one hand, the audience-community is named through broad collective nouns that function as inclusive umbrella terms, and on the other hand, community is characterized according to a range of specific demographic groups or community sectors. There is not one "community" addressed by food charters, then, but numerous often overlapping and sometimes possibly conflicting communities.

Regarding inclusive umbrella terms, all Ontario charters use some kind of universal term such as "everyone" or "all" to name the beneficiaries of the food charter. The term "all" is sometimes used as a collective noun on its own, such as in the Hamilton food charter titled "Food for All," and sometimes as a modifier of other collective nouns, as in phrases such as "all residents" (Halton, 2010) or "all members of our community" (KFL&A Healthy Eating Working Group, 2012). This manner of collective-naming reflects and reinforces the central goal of food charters to promote food security for all community members, a goal established initially by the Toronto Food Charter's (2001) opening reference to "the fundamental right of *everyone* to be free from hunger" as stated by the United Nations 1976 Covenant on Social, Economic and Cultural Rights (emphasis added). When naming their community as a collective whole, some subsequent Ontario food charters continue to cite this Covenant as a guiding framework (e.g., Guelph-Wellington, 2011; London, 2011), while others refer more implicitly to its rights-based discourse of food security for all (e.g., Halton, 2010).

These broad collective nouns are counterpointed, however, by the naming of multiple individual community sectors or demographic groups to whom the charter is addressed. Specifically identified groups/sectors range from "farmers," "food workers," and "retailers" to "consumers," "gardeners," "families," and "youth and students." Organizations such as

"businesses," "schools," "workplaces," "public institutions," and "local governments" also are identified. This terministic screen of "community" selects, and therefore segments, the kinds of community members included within the purview of each charter. Because this naming gives particular sectors rhetorical "presence" within the documents (Perelman & Olbrechts-Tyteca, 1969), it suggests that they—rather than other unnamed sectors—are the charter's main beneficiaries.

By tracing how community is named and segmented in Ontario food charters, our analysis foregrounds an ideological tension between the social justice goal of ensuring food security for all people and the more neoliberal, marketplace goal of developing local food systems as a mode of regional economic development. Ontario food charters give strong rhetorical presence to the farming, food production, and retailing sector through terms such as "producers," "growers," "processors," "distributors," and "retailers," as well as "food workers," "businesses," and "restaurants." To the extent that food charters are concerned with the development of local food systems, naming these sectors constitutes an essential feature of the food charter as genre and represents a politically significant counter to the industrialized, transnational agri-food economy. Taken together, however, these terms foreground an entrepreneurial, commodity-based approach to the food system that does not easily align with the principles of food security and sustainability rooted in social justice and community welfare.

Rather than actively resisting the neoliberalization of agriculture/food production, we argue that food charters' rhetorics of regional economic development implicitly support a "market-based 'solutions'" approach to social ills (Martin & Andrée, 2014, p. 173). Tellingly, Ontarians typically are positioned within the language of the charters as economic actors—"consumers"—rather than as beneficiaries of a system that ensures "food for all." Further, although "farmers" and "food workers" are positioned as socioeconomically disadvantaged groups within the charters, other vulnerable groups such as those who are homeless, elderly, have little or no income, or are living with disabilities or physical or mental illness are conspicuously absent.[12] Those most likely to experience food insecurity are generally represented only implicitly, hidden from direct view under catch-all terms such as "all" or "everyone."

As a result, the rights, needs, and wishes of a community's most vulnerable members may be overlooked or under-represented in the creation of these policy-governing documents (Runnels, 2012).[13] Even if food security is stated as an explicit goal of the genre, blanket references to the rights and needs of "everyone" and "all" enfold the rights and needs of those most vulnerable to food insecurity within broader and largely consumer-driven rhetorics of access, agency, and choice. The most prevalent terministic screen of "community" in Ontario

[12] Exceptions are the Toronto (2001) and London (2011) charters, which identify specific groups such as "families living in poverty" and "elderly or disabled residents" (Toronto) and those "who are unable to obtain safe and nutritious food for good health" due to "physical, economic, educational and other barriers" (London).
[13] For example, food-security initiatives endorsed by food charters, such as community kitchens, often do not address effectively the needs of families living in severe poverty (Bidwell, 2009; Engler-Stringer & Berenbaum, 2005; 2007).

food charters therefore blocks from view certain of its members while emphasizing others, such that the genre itself may preclude the very sorts of actions that might benefit *all* members of a given community, especially those most at risk of food insecurity.

Ultimately, the genre of Ontario food charters constitutes an ambiguous and shifting sense of who "community" is and the role that diverse community members and groups play in creating, implementing, and benefiting from the vision advanced within a given food charter. As we discuss below, these tensions appear to be tempered by the use of lists to articulate each community's set of core values for its food system; however, a close reading of these value-lists reveals underlying logical and ideological incongruities that may also limit their potential to enact the sort of actions in the food system that they envision.

Articulating core values: Lists as quasi-logical arguments in food charters

All but one of the 22 Ontario charters we analysed employs a list format to present the community's core values and priorities for its regional food system. This recurring formal feature of the genre both manifests and manages the incongruities that inform each charter's representation of community identity and community values. The list structure implies a hierarchical logic within the charter, a sense of careful taxonomic reasoning. However, as we argue below, these value-lists contain underlying tensions that could constrain the potential impact of food charters on food policy development and implementation. Analyzing lists as a rhetorical form within the food charter genre illuminates how the genre produces a sense of a shared, coherent communal vision despite the disparate and possibly conflicting principles and priorities that together compose this vision.

Community visions and values: How should a food system be?

Generally, each charter begins with an overarching statement of the community's goal or vision for its food system. Ranging from one or two sentences to several short paragraphs, the preamble typically describes the community's vision for a "healthy, just, and sustainable food system" (Waterloo Region, 2013) and declares its intention to work together to implement this "common vision" according to the principles outlined in the remainder of the document.

Following that opening statement, the charters are organized into lists of core values that emerge out of and support this vision. Typically, these lists contain the following value categories (though in varying order and phrasing):

- Health
- Education
- Economy
- Environment

- Culture & Community
- Social Justice

Most of the charters we analyzed present these headings either on their own or as bold, highlighted, or coloured text within longer value-statements, such as "Because we value/believe x [value], we support y [action]" (see Figure 1). Under each of these core value-statements is a list of specific objectives or endpoints for the enactment of that value within food-related policy and practice. For example, in the Guelph-Wellington (2011) charter, under the value-statement "Because we value **Health**, we support…" (original emphasis here and below), the charter lists the following objectives:

- Public policy that recognizes food's contribution to physical, mental, spiritual, and emotional well-being.
- Neighbourhoods that encourage walk-able and bike-able access to healthy food.
- Strategies to prevent and manage chronic diseases through access to affordable healthy food. (Guelph-Wellington, 2011)

In the same charter, under the value-statement "Because we value **Sustainable Economic Development**, we support…" are the following objectives:

- Prioritizing production, processing, distribution, and consumption of local food.
- Promoting our region as a food, agricultural, and culinary destination.
- Advancing food and agriculture research and innovation for alternative food systems.

These lists organize the charter's overarching stated goal into categories and subcategories that seem to provide a map for the document's users to engage in effective action within the food system.

Lists as quasi-logical arguments

The use of lists to structure information within food charters, illustrated in the preceding section, provides an impression of coherence and compatibility among the diverse values included within them, thereby possibly obscuring logical and ideological inconsistencies among the different values and interests they espouse. In rhetorical terms, these lists function as what Perelman and Olbrechts-Tyteca (1969) call "quasi-logical arguments" which are rhetorical structures that "derive their persuasive strength from their similarity to…well-established modes of reasoning" such as formal logical proofs (p. 193). Quasi-logical arguments are association schemes that appear to demonstrate logical connections by linking two independent entities such that judgments about one are transferred to the other (van Rees, 2007, p. 1), thus conveying the

impression "that the classes formed by the subdivision of a set are not ambiguous" (Perelman & Olbrechts-Tyteca, 1969, p. 235).

Items in a list appear to be equal and of the same conceptual order (Ledin & Machin, 2015), thus masking any logical inconsistencies among the items because the list format does not specify the interconnections among its parts (p. 469). Lists therefore imply careful reasoning via enumeration: they appear to enact a logical, orderly division of the whole into parts, which, in this case, is the division of the community's central vision for its food system into core values and objectives intended to implement that vision. In Ontario's food charters, the division of a community's overarching vision for its food system into component core values—which, in turn, are divided into component objectives or endpoints—suggests that those stated values and sub-values are logically connected and compatible with one another. This technique of vertical differentiation, in which each of the main parts is further subdivided into a taxonomic array, creates an impression of systematic depth and complexity (Spoel, 1997, p. 124).

Within the food charter genre, lists manage a tension between division and connection that appears integral to the ability of diverse community stakeholders to craft a "shared vision" for their food system. Each of the core values constitutes a separate part of the shared vision, whereas the list structure makes all parts appear to produce a whole, unified vision. However, in quasi-logical arguments such as lists, both the "parts" and the "whole" (and their attendant interrelations) may be less connected than they at first appear. As a meta-genre, the food charter appears to articulate a unified vision for the community's food system and a coherent set of guidelines for its enactment but, in reality, this vision may establish shaky, uneasy grounds for subsequent action.

Wholes and parts: Incompatibilities in food charters' espoused values

By dividing up a community's vision for its food system into component values (which, in turn, are divided into component objectives or endpoints), the generic whole-part list structure of the food charter overlays the document with a sense of coherence that suggests the interconnectedness of each aspect of this vision but that also may obfuscate actual disparities and unspecified connections among its parts. If food charters are intended to inform the development of effective food policy, these disconnections and possible incompatibilities may limit their ability to effect meaningful action for all stakeholders involved, including not only those involved in their production but, more broadly, those affected by their enactment.

For example, the Waterloo Region (2013) food charter, which is fairly typical of the genre, contains potential inconsistencies across its core values and sub-values that that may inhibit its translation into effective food policy planning and implementation. The charter articulates five overarching core values:

1. connecting people to our local food system
2. community economic development

3. access to healthy food
4. ecological health
5. integrated food policies at all levels of government

As a set of categories that aim collectively to enact the charter's shared vision of supporting "fair, environmentally sustainable, livable [sic], and economically profitable rural and urban communities," these five values appear to work in concert. However, drawing on recent scholarship in food studies, we find that many of the values sit in uneasy tension with each other.

Value 1 prioritizes local foods, for instance, whereas Value 3 emphasizes foods that are both accessible and healthy. These two values do not necessarily entail one another and may, in some cases, be openly contradictory: locally-produced foods are not *ipso facto* healthier, by virtue of either higher nutrient values (Frith, 2007; Vogt & Kaiser, 2008, p. 251) or reduced chemical inputs such as fertilizer or pesticides (Born & Purcell, 2006; Edwards-Jones, 2010; Hinrichs, 2003), than foods shipped from further away, nor are they necessarily financially or geographically accessible to everyone (Born & Purcell, 2006; DuPuis & Goodman, 2005; Guthman, 2011). Indeed, critics note how North American local food movements frequently foster an elitist mode of consumerism (e.g., "locavores") rather than supporting food justice for all (Blue, 2009; Guthman, 2008; 2011).

Similarly, Value 1's emphasis on local food is not necessarily compatible with Value 4, which prioritizes ecological health: locally-produced food is not inherently more environmentally sustainable than food produced elsewhere (Born & Purcell, 2006; Edwards-Jones, 2010; Hinrichs, 2003). For instance, one frequently cited benefit of local food is that it reduces greenhouse gas emissions by reducing "food miles", but transportation only captures a portion of a product's total emissions, which also include growing, processing, storing, and retailing (Born & Purcell, 2006; Edwards-Jones, 2010; Hinrichs, 2003). In addition, food that is ecologically sound (Value 4) is not necessarily produced locally (Value 1), or healthier, or more accessible (Value 3). In some cases, climate is a significant factor in environmental impact (e.g., imported produce may require less irrigation or heating than local produce), whereas in others, more environmentally friendly food products are significantly more expensive.

Our analysis also revealed potential incompatibilities among the sub-points of individual value-statements, where the list format obscures logical gaps between the items it contains. Consider, for example, the Waterloo charter's third value-statement:

> we support **access to healthy food**
> - by protecting farmland from urban development
> - by supporting policies and other initiatives that ensure that everyone has access to enough nutritious food.

Under the latter objective are listed five additional points that, by implication, add up to a fulsome notion of "access": "adequate incomes for everyone"; "local production and processing of foods"; "walk-able…access to venues that sell healthy foods"; "widespread availability

of…locally produced and culturally appropriate food"; and "availability of healthy, affordable food choices in workplaces and public institutions." In this charter, the list and sub-list of objectives under Value 3 pose potential problems of logic that echo those we have described above: that locally produced and processed food is not necessarily more nutritious, and that local food is not necessarily more accessible or affordable by virtue of the proximity of its production. Additionally, this list leaves unclear the link between its two main objectives, "protecting farmland from urban development" and ensuring access to healthy food for all residents. These items do not necessarily entail each other and the list structure does not provide a framework for making those connections clear. Instead, the paratactic (i.e., grammatically disconnected) structure of the list format implies that the items are connected logically, even if they are not explicitly intended by their authors to appear so.

This illustrative analysis of the Waterloo food charter indicates that the genre's recurring list format fosters a "strategic ambiguity," in rhetorical terms (Burke, 1969, p. 66), which allows the multiple community sectors involved in the development of food charters to negotiate their diverse interests and objectives. At the same time, the examples we have discussed here indicate the possibly intractable challenge of aligning these diverse groups and interests into a logically and ideologically unified food-system vision. That is, the list format typical of the genre invests food charters with a sense of comprehensiveness, depth, and texture, as well as a visual nesting of parts under an organizing whole, that may obfuscate inconsistencies or tensions that exist among those parts. To the extent that the different values expressed in food charters map onto different instantiations of *community*, the value-list format may likewise obscure the diverse, possibly incompatible needs and priorities of the different community members to whom each charter is addressed (and, importantly, not addressed). Because a central purpose of the food charter genre is to constitute a shared community vision, as well as a shared sense of community, its rhetorical form occludes these differences. While this occlusion may function strategically to foster a shared vision that encourages community sectors to work together, it also may limit the potential of food charters to effectively motivate and guide "healthy, just, and sustainable" (Waterloo Region, 2013) food-system action.

Conclusion

In our view, a central socio-ideological function of the Ontario food charter genre is to create a sense of togetherness and compatibility within communities who must negotiate diverse needs, interests, and values. The genre manages to accomplish this, at least to some extent, through rhetorical techniques such as *naming* the community and *listing* component parts of the community's shared vision for its food system. Even if the various senses of "community" and the values that constitute its shared vision do not cohere logically, the food charter genre enacts a discursive space for a community to reflect not only on the kind of food system that it aspires to have, but also the kind of community that it aspires to be. As an aspirational genre, then, food

charters are well-equipped rhetorically to accommodate tensions and incompatibilities among the differing needs, interests, and values of the various community members who produce them and to whom they are addressed.

We contend, therefore, that the meta-genre of the food charter, as recently enacted within the context of Ontario's regional Public Health Unit boundaries, is as much about community as it is about food. Further, its nature as an aspirational statement of values—both concerning food systems and concerning communities—makes it primarily an epideictic rather than a deliberative genre of rhetoric: although the food charter appears to direct future action (a deliberative motive), its main effect is praising and reinforcing the values of the present to audiences who are presumed already to share those values (an epideictic motive). Under this valence, the food charter's ability to direct future action is less assured than the genre itself suggests.

If food charters are intended to function as meta-policy guides for practical action, then the logical-ideological incongruities that emerge from their shifting senses of community and their unarticulated relations among core values may limit their effectiveness in fostering the kind of politically progressive and situationally coherent food policies and strategies that food-system activists are working hard to achieve. It is unclear, for example, how initiatives aimed primarily at regional economic development will ensure either food security for all residents or ecological health for the whole region, and yet food charters exhort Ontario communities to address all three of these goals together.

An important next stage of this research, therefore, is to investigate the food policy and food strategy genres that the food charter, as a meta-genre, is helping to spur in Ontario regional communities. As rhetorical-genre theorists point out, fully understanding the action of any particular genre requires exploring its complex and evolving relationships within broader genre networks (Bazerman, 1994; Berkenkotter, 2001). For example, the preceding analysis affords a critically generative perspective on implementation documents such as *Your Guelph Wellington Food Charter Toolkit* (2012), which organizes its action plan by (re)dividing the shared community identity and values of the charter document into five separate constituencies: Eaters, Growers, Businesses and Institutions, Policy Makers, and Community Food Projects. Although each part of the community may have a role to play in implementing the food charter vision, each constituency is addressed separately and is identified as having its own particular opportunities and responsibilities for action.

We mention this one example in closing to suggest the importance of further research on how the food charter as a meta-genre fosters the production of diverse genres in food policy and practical application for community food systems. Each of these proliferating genres will likely reconfigure who the community is and what values it holds for its food system. Exploring these diverse configurations can help us to understand why some kinds of community members and some kinds of community priorities receive greater attention than others in efforts to develop a healthy, just, and sustainable food system for all.

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Appendix: Ontario Food Charters Summary Table of Genre Features

Charter name / region	**Date on charter** Yes/No	**Length / format**	**Authors listed** Yes/No	**Request for signatories on charter** Yes/No	**External request for signatories** Yes/No	**Preamble** Yes/No	**List of values** Yes/No	**Sub-points for values** Yes/No	**"We/Our"** Yes/No	**Broad collective nouns** Yes/No	**Specific community sectors named** Yes/No	**Disadvantaged groups named** Yes/No	**"food security" / "community food security"** Y/N	**UN covenant explicit reference** Yes/No
"Bruce Grey"	N (2014)	6 (full page)	Y**	N	Y	Y	Y	Y	Y	Y	Y	Y	N	N
"City of Greater Sudbury"	Y (2004)	1 (full page)	Y	N	N	Y	Y	Y	Y	Y	Y	N	Y (FS, CFS)	N
"Durham Region"	Y (2012)	2 (full page)	N	N	N	Y	Y	Y	Y	Y	Y	N	Y (FS)	N
"Elgin St-Thomas"	N (2012)	2 (full page)	N	N	N	Y	Y	Y	Y	Y	Y	N	N	Y
"Guelph-Wellington"	N (2011)	1 (full page)	Y	Y	N/A	Y	Y	Y	Y	Y	Y	Y	N	Y
"Halton"	Y (2010)	1 (full page)	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N
"Hamilton"	Y (2013)	2 (pamphlet)	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y (CFS)	Y
"Huron County"	N (2015)	4 (full page)	Y	Y	N/A	Y	Y	Y	Y	Y	Y	N	N	N
"Kawartha Lakes"	N (2011)	2 (full page)	Y	N	N	Y	Y	Y	N	Y	Y	N	Y (FS)	N
"Kingston, Frontenac, Lennox & Addington"	N (2012)	2 (full page)	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	N
"Leeds, Grenville & Lanark County"	N (2014)	1 (full page)	N	Y	N/A	Y	Y	Y	Y	Y	Y	N	N	N
"London"	N (2011)	4 (full page)	Y	N	N	Y	Y	N	N	Y	Y	Y	Y (FS)	Y****
"Northumberland County"	N (2013)	2 (pamphlet)	Y	Y	N/A	Y	Y	Y	Y	Y	Y	N	Y (FS)	Y****
"Oxford County"	Y*(2010)	1 (webpage)	Y	N	N	N	N	N	N	Y	Y	N	Y (FS)	Y****
"Parry Sound & Area"	Y* (2015)	1 (webpage)	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	N
"Sarnia-Lambton"	N (2011)	1 (full page)	N	Y	N/A	Y	Y	Y	Y	Y	Y	N	N	N
"Simcoe County"	Y(2013)	4 (full page)	Y	Y	N/A	Y	Y	Y	Y	Y	Y	N	Y (FS)	N
"Thunder Bay"	N (2008)	1 (full page)	N***	N	N	Y	Y	Y	N	Y	Y	N	Y (FS, CFS)	N
"Toronto"	N (2001)	4 (full page)	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y (FS)	Y
"Waterloo Region"	N (2013)	2 (full page)	Y	N	Y	Y	Y	Y	Y	Y	Y	N	N	N
"Windsor Essex County"	N (2014)	2 (pamphlet)	Y	N	N	Y	Y	Y	Y	Y	Y	N	N	N
"York"	Y (2013)	1 (full page)	N	N	N	Y	Y	Y	Y	Y	Y	N	N	N

* Date does not appear to be part of the food charter itself—it is located in the bottom right of the webpage.

** The charter names the "Bruce Grey Poverty Task Force" on the last page but it is unclear whether this is the author of the food charter.

*** City of Thunder Bay logo and signature of the Mayor appear on the charter, but they are not the document's authors.

**** Does not directly name the UN Covenant, but references the more recent 2009 World Food Summit on Food Security, hosted by the UN's Food and Agriculture Organization.

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Original Research Article

Planning for food sovereignty in Canada? A comparative case study of two rural communities

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Abstract

In Canada, most local-governance–level food system planning research has been conducted in larger, often urban communities. However, producers in small rural communities conduct the majority of Canada's agricultural activities. Using case study research, this paper documents how the rural communities of Saint-Camille (Québec) and Salt Spring Island (British Columbia) engage in food system planning. By investigating background issues, key achievements, barriers, and best practices, the case studies inform a comparative analysis of governance planning processes and community-led project development. The results suggest an overlap between the community food system planning framework and the food sovereignty framework, a space discerned as food sovereignty planning.

Keywords: local food, food system, local government, food system planning, food sovereignty planning, Salt Spring Island, Saint-Camille.

Acronyms:

AFP: Area Farm Plan
ALC: Agricultural Land Commission
ALR: Agricultural Land Reserve

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CDSE: Corporation de développement socio-économique de Saint-Camille (non-profit community development organization of Saint-Camille)
CPTAQ: Commission de protection du territoire agricole du Québec (Québec commission for the protection of agricultural land)
LPTAA: Loi sur la protection du territoire et des activités agricoles (law on the protection of agricultural land and activities)
MIR: Meat Inspection Regulation
MRC: Municipalité régionale de comté (administrative entity comprising multiple municipalities)
OCP: Official Community Plan
PDZA: Plan de développement de la zone agricole (MRC-focused agricultural development plan)
SSI: Salt Spring Island
SSIAA: Salt Spring Island Agricultural Alliance
UPA: Union des producteurs agricoles (union of Québec agricultural producers)

Introduction: Community food system planning in Canada

In Canada, most food system issues have traditionally been interpreted to be provincial and federal matters. The jurisdictional authority of local governments over the food system is limited, yet local governments are directly faced with the consequences of food system issues. These include the local effects of climate change and pollution, food insecurity, diet-related public health problems, loss of agricultural land, shifting population and demographics, financial struggles of food producers, shrinking local food infrastructures and support services, and decreasing employment and tax revenues from agrifood enterprises. As the level of governance closest to the community and as a service provider, local governments have the power to educate, to support local initiatives, enact policies, and develop programs that can shape the local food system and respond to the specific needs of their citizens.

Until recently food system considerations had been largely absent from municipal planning (Pothukuchi, 2000; Pothukuchi & Kaufman, 1999; Raja, Born, & Purcell, 2008). Today community food system planning is generally understood as the integration of food system considerations into community project, planning process, and policy development, with the goal of improving a community's food system (Raja et al., 2008). The American Planning Association (2013) more specifically defines community food system planning on its website as:

> …the collaborative planning process of developing and implementing local and regional land-use, economic development, public health, and environmental goals, programs and policies to: Preserve existing and support new opportunities for local and

> regional urban and rural agriculture; Promote sustainable agriculture and food production practices; Support local and regional food value chains and related infrastructure involved in the processing, packaging, and distribution of food; Facilitate community food security, or equitable physical and economic access to safe, nutritious, culturally appropriate, and sustainably grown food at all times across a community, especially among vulnerable populations; Support and promote good nutrition and health, and; Facilitate the reduction of solid food-related waste and develop a reuse, recovery, recycling, and disposal system for food waste and related packaging.

Pothukuchi & Kaufman (1999) identify five approaches by which municipal planners can engage in food system planning: 1) the compilation of data on the community food system; 2) the analyses of connections between food and other planning concerns; 3) the assessment of the impact of current planning on the local food system; 4) the integration of food security into community goals; and 5) the education of future planners regarding food system issues. The field of food system planning is rapidly evolving as a growing body of research and planning tools improve our understanding of complex food systems, identify opportunities and challenges, and evaluate the efficacy of food system planning (Freedgood, Pierce-Quinonez, & Meter, 2011; Meter, 2011; de la Salle, & Holland, 2010).

In Canada, most efforts to document and research food system planning at the local-governance level have focused on larger, often urban communities (see the work of Apparicio, Cloutier, & Shearmur, 2007; Blay-Palmer, 2009; Larsen & Gilliland, 2008; Mendes, 2007; Mendes, 2008; Smoyer-Tomic et al., 2006). Some research, like that of Desjardins, Lubczynski, and Xuereb (2011), which considers the relationship between rural and urban land use policies in the Waterloo Region, has included both the rural and urban context. Yet to date, little research on food system planning has been conducted in the small rural communities where farmers live and undertake the majority of Canada's agricultural activities. Conducting research on rural communities is relevant not only because the land base under their jurisdiction produces the vast majority of Canada's agricultural products, but also because there are significant opportunities unique to rural communities to develop innovative forms of resistance, community building, and social movements (Wittman, 2009; Woods, 2003).

To explore the involvement of small, rural communities in food system planning, this paper uses case study research to document how Saint-Camille (Québec) and Salt Spring Island (British-Columbia) engage in food system planning. These communities were primarily selected because they were already known to be "hot spots" of community-driven local food system development; they are not representative of a broad trend. Both case studies are based upon a review of various reports, published works, and site visits, as well as twelve phone and in-person interviews. Qualitative data analysis software was used to identify key themes. The Salt Spring Island research was primarily conducted in the summer of 2012; the Saint-Camille research was, for the most part, undertaken in the winter of 2013. The investigation of background issues, key

achievements, barriers, and best practices, informs a comparative analysis of local governance planning processes and community-led project development. This comparative analysis feeds into an exploration of how Saint-Camille and Salt Spring Island's (SSI) food system planning initiatives reflect key food sovereignty themes. In this context, food sovereignty is understood as:

> "…the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems" (Nyéléni Declaration, Mali, 2007).

Generally speaking, food sovereignty is a widely hypothesized theory of change seeking to alleviate the linked challenges of environmental degradation and global food insecurity by reconnecting the politics of local food to socio-ecological practices of food production and consumption (Carney, 2012; Desmarais, 2002; 2008; Patel, 2009; Wittman, 2009; Wittman, Desmarais, & Wiebe, 2010; 2011)

Salt Spring Island

Located in the Strait of Georgia off the eastern shore of Vancouver Island, and with a population of approximately 10,000 people, SSI is the largest and most populated island of the Southern Gulf Islands region. In the mid-1800s, European settlers established dairy, fruit, poultry, sheep, and animal-feed farming operations to supply neighboring Victoria, but production declined significantly after World War II. An agricultural revival in the 1970s and 1980s saw the emergence of small-scale (often organic) agricultural enterprises. More recently, small-scale farming has experienced renewed growth. Still, local food production is insufficient to feed the local population thus large international distributors bring in the majority of the food sold on the island. The cost of food and agricultural inputs are exacerbated by the reliance on ferry or plane transportation (Reichert, 2006). 2006 land-use data suggests that a substantial amount of SSI's arable land was not being actively farmed: 15 percent (2,920 ha) of the SSI land area was part of the Agricultural Land Reserve (ALR), only 54 percent of which was actively being farmed (Ministry of Agriculture and Lands, 2006).[1] The ALR is a provincial land use zoning designation applied to land with agricultural capabilities. Its purpose is to ensure the preservation of BC's small agricultural land base. The ALR is administered by the Agricultural Land Commission (ALC), an independent government agency created by the 1973 ALC Act to preserve agricultural land, promote farming, and encourage BC local governments to enable and accommodate farming in plans, bylaws, and policies.[2]

[1] This is in part because BC Parks owns more ALR land on SSI than any other landowner (with Ruckle Farm being the exception), and farming is not permitted in BC Parks.
[2] Farming operations are also protected through BC's Right to Farm legislation from being sued for nuisance-type impacts resulting from normal farm practices. This limits the extent to which local governments can regulate and restrict certain agricultural activities.

Amendments to the provincial Meat Inspection Regulation (MIR) are widely viewed as an important cause of the drastic decline in livestock raised on SSI. By 2010 the total number of animals (including sheep, cattle, pigs, and goats) had decreased by approximately 44 percent since 2004–05, while the total number of poultry sold for meat had decreased by approximately 52 percent since 2004 (Reichert & Thomson, 2010). Enacted in 2004, the amended MIR introduced standards that made existing, non-licensed abattoirs or on-farm slaughtering practices illegal, thereby requiring that all slaughtering to produce meat for sale for human consumption take place in licensed facilities. Because there were no licensed abattoirs on SSI, the regulations required farmers to transport live animals off island by ferry to a licensed plant and then to return to the abattoir at a later time to retrieve the meat.

Key food planning achievements

SSI is under the jurisdiction of the Capital Regional District and is part of the Islands Trust, a federation of independent local governments. Locally elected representatives from the SSI Local Trust Council, which directs the development of official community plans, zoning, and other land-use planning and bylaws on SSI. In 2005 the SSI Agricultural Advisory Committee recommended the development of an Area Farm Plan (AFP).[3] The SSI Farmer's Institute and the community organization Island Natural Growers, in collaboration with the SSI Local Trust Council and the BC Ministry of Agriculture and Lands, completed the AFP in January 2008. A local consulting firm facilitated community dialogue sessions and drafted the AFP under the direction of a Steering Committee. The AFP's guiding vision was for SSI to become "a place where agriculture is a strong, vital and productive part of the local economy and is carried out in a manner that promotes and protects a sustainable community" (Masselink Environmental Design, 2008, p.5). Of 25 recommendations, three emerged as priorities:

1. Establish a Salt Spring Agricultural Alliance…to assume the responsibility of the implementation of the AFP…and provide a central contact point and coordinating role for agricultural matters on or involving Salt Spring Island.
2. Establish a community farmland trust…that can accept, acquire and manage farmland and ensure that it is farmed in perpetuity.
3. Establish key community facilities that support the expansion of agricultural activities…[including] an abattoir and cold storage, processing and composting facilities on Salt Spring" (Masselink Environmental Design, 2008, p.5).

[3] In British Columbia, the Agricultural Land Commission and the Ministry of Agriculture support local governments in developing Agricultural Area Plans, which are also known as Agricultural Farm Plans (AFP). These plans focus on discovering practical solutions and opportunities to strengthen farming in a community's farm area so as to contribute to long-term sustainability (BC Ministry of Agriculture, n.d.).

Established in November 2008, the SSI Agricultural Alliance (SSIAA) now plays an advocacy role in local agricultural issues and policy, and has been the driving force behind the planning and development of the SSI Agriculture Infrastructure Project, whose goal is to support the expansion of agriculture on SSI by developing an abattoir, a produce centre, and a community composting facility. To overcome the challenges posed by the revised MIR, the SSIAA championed the development of the SSI Abattoir, whose $475,000 capital budget was obtained from the provincial Meat Transition Assistance Program and by raising more than $300,000 from the community. The SSI community, through the SSIAA, owns the assets of the abattoir; the Salt Spring Abattoir Society has been set up to run operations. The abattoir has been in operation processing lamb and poultry since September 28, 2012, with beef and pork to be added in 2016.

In 2012 the SSIAA offered public drop-off sites for clean woody debris to produce gardening mulch, and work to implement a more comprehensive composting pilot project is ongoing.

The SSI Farmland Trust was established in 2009 to help the community to effectively address the problem of an eroding farm base and to provide opportunities for new farmers by creating access to affordable land. The SSI Farmland Trust is transforming (drainage, fencing, irrigation infrastructure, etc.) the Fulford Property, Burgoyne Valley Community Farm, and a gifted piece of agricultural land into a food-producing site for the SSI community. In 2012 the Shaw Family Community Gardens occupied six of the 62 acres of the Burgoyne Valley Community Farm. The remaining acreage is now home to five small farms, whose land base is rented from the SSI Farmland Trust on long-term leasing agreements. Most of the farmers are younger people starting new farms.

The SSIAA and the SSI Farmland Trust are jointly driving the development of the Center for Food Security (previously known as the "SSI Farm Produce Centre"). Described as a multipurpose facility and social enterprise, the Centre for Food Security will operate as a non-profit organization on a cost recovery basis. The Centre aims to develop and model a type of consolidated agricultural infrastructure designed to increase local food production and facilitate both retailing and wholesaling of local foods. The Centre will provide multiple services, including: a produce storage, aggregation, distribution, and processing centre; an educational space; permaculture and greenhouse demonstration sites; honey extraction equipment; and a seed bank. It is anticipated that the Centre for Food Security will facilitate commercial distribution, develop co-branding and joint ventures, provide incubator services for product development, and serve as a hub for small equipment rental, office space, workshops and mentoring, marketing support, an agricultural information clearinghouse, and a CSA coordination and distribution station (Reichert, 2012). Site development commenced in 2016 on a property acquired by the SSI Farmland Trust and situated on Beddis Road, a heritage agricultural area of the island. Other community organizations involved in the visioning and future operations of the Centre include SSI Community Services, SSI Conservancy, and SSI Seed Sanctuary.

Saint-Camille

Situated in the Estrie region east of Montreal, Saint-Camille was a thriving agricultural community at the beginning of the twentieth century. Its population reached 1290 citizens in 1914, but dropped to 610 in 1972 and then to 450 by 1984 (Béïque, 2011). This population decrease has been attributed to ongoing centralization and concentration of commercial activities and services, as well as the restructuring of agriculture—all of which drove migration from the countryside to the cities. Today, the agriculture, forestry, fishing, and hunting sector account for the majority of local employment, and 92 percent of Saint-Camille's territory is zoned as "agricultural" (Dufresne, 2012). Aside from a few relatively diversified and organic farming operations, conventional agriculture is the dominant model, with dairy and cash cropping being the most common forms of production.

Saint-Camille is one of the seven towns and villages that together make up the Municipalité Régionale de Comté "Des Sources." A "Municipalité régionale de comté" (MRC), or regional county municipality, is an administrative entity that brings together municipalities within a given territory to oversee planning and development and ensure conformity with provincial laws and regulations (MAMROT, 2012). In 2009, as recommended in the Pronovost report,[4] the Québec Ministry of Fisheries, Food, and Agriculture supported the elaboration of the first MRC-focused agricultural zone development plan ("Plan de développement de la zone agricole," or PDZA). The MRC des Sources finalized its PDZA in June 2014.

In 1978, the Québec government adopted a law ("Loi sur la protection du territoire et des activités agricoles", or LPTAA) to protect valuable agricultural land. The Québec commission for the protection of agricultural land ("Commission de protection du territoire agricole du Québec", or CPTAQ) oversees the application of the LPTAA, evaluates requests, and grants authorizations for non-agricultural land-use activities and zoning modifications, and counsels the provincial government on matters relating to the protection of agricultural land (CPTAQ, 2007). Enacted in 2001, Law 184 included Article 59, under which MRCs can present a collective demand to the CPTAQ for residential functions to be introduced into properties that are zoned as agricultural. The "Union des Producteurs Agricoles" (UPA), a producer union representing Québec agricultural producers on a mandatory basis, can intervene in any request presented to the CPTAQ.

[4] In June 2006, the "Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois" (the Québec Commission on the Future of Agriculture and Agri-Food) was formed to identify issues facing, examine the efficacy of policies and programs targeting, and formulate recommendations regarding Québec's agriculture and agrifood sectors. In January 2008 the Commission published its results in what came to be known as the Pronovost Report. The issues identified by the report included decreasing agricultural revenues, unprecedented producer debt loads, increased costs of financial aid programs, challenges in transferring farms to a new generation, market prices that do not reflect increasing production costs, relative lack of consumer confidence in the sector, increased pressure to further liberalize agricultural markets, increased psychological distress among producers, weakened growth prospects, and a highly structured and concentrated food distribution system (Pronovost, 2008).

Key food planning achievements

In 2003, a non-profit community development organization (the "Corporation de développement socio-économique de Saint-Camille," or CDSE), which was founded in 1994 by a group of citizens, was mandated by the municipality to develop and implement a plan to increase the population of the village by 10 percent in 10 years. By 2011, the Saint-Camille population had reached 511 residents, a 14 percent increase from 2006 (Dufresne, 2012). Initiatives promoting agricultural diversification, increasing community food autonomy, and diversifying the real estate market have contributed to surpassing the demographic objective.

In 1999, the CDSE founded "Le salon régional d'animation sur la diversification agricole de Saint-Camille" (hereafter referred to as "the Salon"), a local, recurring conference focused on agricultural diversification. Two conditions affecting the future of agriculture were said to have helped shape and garner community support for the Salon: 1) a productivist and monoculture-oriented model was being developed to the detriment of family farms; and 2) a growing disconnect between the countryside and the village, whereby both agricultural inputs and outputs no longer contributed to fabric of, and the social and economic interaction between farms and the village. In the Saint-Camille context, agricultural diversification involved occupation of the agricultural territory with individuals and enterprises that intensively operate agro-ecological enterprises on small land parcels, and investing in types of production that allow more people to settle in the area. It also involved developing business models designed around local consumption and the creation of niche products and agro-tourism. Held on a biannual basis until 2013, the Salon shed new light on how agriculture is linked to sustainable ways of living, producing, and consuming.[5] Currently, instead of organizing a Salon every two years, activities and workshops relating to agricultural diversification are offered on an annual, continuous basis.[6]

The solidarity cooperative[7] La Clé des Champs emerged from the convergence of ideas explored in previous Salons and a short course in applied ethics that examined citizen responsibility in community vitalization. The co-op was officially formed in 2003, shortly after a community leader made his land available to a group interested in the development of a community market garden as a means to achieve greater community food autonomy. Its goals were to: support the new farming generation by providing access to collective property; promote a diversity of new farming enterprises; support the local community in safeguarding the agricultural and rural patrimony; and contribute to the transmission of knowledge (Béïque, 2011). Founding principles also included job creation and the production and availability of

[5] For example, the first Salon explored strategies to support the new farming generation, whereas a later edition focused on renewable energy.
[6] For example, in the fall of 2015 and the winter of 2016, the CDSE helped organize multiple one-day events touching on diverse topics including recent innovations in the agrifood sectors, hop production, milkweed cultivation, and the Trans-Pacific Partnership.
[7] The membership of solidarity co-operatives is composed of user-members, worker-members, and support or community-members. Because it brings together all parties involved in a particular endeavour, solidarity cooperatives are sometimes referred to as "multi-stakeholder cooperatives."

products derived from local agriculture and forestry (Lair, 2011). In 2004, the co-op grew another branch focused on gathering non-woody forest products, "Cultur'Innov," which soon after became a separate cooperative entity offering consulting services pertaining to agroforesty and the production of new specialty crops. By 2011, the co-op operated on seven rented acres, had acquired several agricultural assets, had hired five employees, and had obtained financing from various provincial and local entities (Lair, 2011). In 2012, La Clé des Champs was sold[8] to two young farmers, thus becoming a private enterprise, which nonetheless continues to play a central role in Saint-Camille's food autonomy. In 2016, Cultur'Innov continues to operate as a co-op and is working with the CDSE to develop an experimental orchard to research and develop new specialty crops.

To attract newcomers, the CDSE and the municipality spearheaded two innovative real estate development projects. Initiated in 2004, the Parc AgroVillageois project is a development model that is both close to the heart of the village and open to the agricultural landscape. One interviewee explained, "We noticed that people liked to settle around a lake, so we thought why not settle around a garden…a food pantry?" To conserve agriculturally productive land while featuring its nourishing and agricultural characteristics, the development was to be situated within the forested borders of cultivated lands used by La Clé des Champs. A plan to divide this agricultural property into 17 one-acre forested parcels was devised. A collective demand to modify the zoning from agricultural to non-agricultural was submitted to the tripartite evaluation process involving the MRC, the UPA, and the CPTAQ. The UPA argued that the de-zoning would fracture and expand the development of the village and set a bad land-use planning precedent. A compromise was eventually struck whereby land that had previously been de-zoned for the construction of farm buildings was converted back to agricultural zoning in exchange for de-zoning the forested borders. By February 2013, the eight one-acre parcels granted to the project were sold and one house had been built.[9] Currently, a neighboring land trust is amenable to securing long-term tenure of arable land for Parc AgroVillageois residents interested in starting a small-scale agricultural enterprise.

In 2004, a locally owned 300-acre property zoned as non-agricultural was parceled into 25 lots to become the co-operative development project "Les fermettes du rang 13." The term "fermette" can be loosely translated as "farmstead" or "small farm," and "rang" as "rural road." The municipal council required that individual lots host small-scale agricultural or forestry projects. In 2007, a core group of committed individuals formed the Rang 13 solidarity co-op, whose charter emphasized sustainable development and reiterated its agricultural (preferably organic) vocation. The CDSE and the municipality collaborated with the co-op to develop the vision as well as to secure provincial funds to upgrade access roads and develop support programs and services for young families (MRC Mes Sources, n.d.). Rang 13 members

[8] The cooperative was sold in part to attract young farmers to the area and to address financial challenges related to the employment structure.

[9] It is believed that the participants' strong collective identity carried the Parc Agrovillageois project. When it was "cut in half" to address the UPA's reservations, so too was the identity of the project. The project was said to have lost momentum because it could no longer be developed as it had been collectively imagined.

purchased the land collectively at costs reflecting the size and the features of individual lots. Overall, the combination of endogenous resources (e.g., the capacity to welcome visitors, the work of volunteers, project coordination, etc.) and exogenous resources (e.g., networks at the local, regional, and national levels) brought the Rang 13 project to fruition (Dufresne, 2012).[10] The original vision of the Rang 13 has not fully materialized since the majority of residents do not professionally engage in agricultural and forestry ventures, however many have contributed to the local food economy by launching new, albeit small-scale, food and forestry initiatives.

Comparative analysis

Restraining factors

SSI and Saint-Camille interviewees were asked to reflect on food system planning barriers and challenges in their communities. Table 1 summarizes the findings that emerged from these conversations and background research. Five themes common to both communities emerged from this comparative process.

Table 1: Barriers and challenges to project development

Salt Spring Island	Saint-Camille
- Lack of funding and support - Unsupportive provincial and federal policy - Land availability and accessibility - Housing - Communication - Development and application of local food policy - Local government structure	- Promoting agricultural diversification in the context of unsupportive policies and institutions - Land access for the new farming generation - Growing a new generation of producers in a shifting agricultural context - Balancing the protection of agricultural land with maintaining vibrant communities - Dealing with pressure from the resource extraction industry

First, both Saint-Camille and SSI pointed to unsupportive provincial and federal policies and to institutional barriers. As a solidarity co-op, Saint-Camille's La Clé des Champs was not eligible for support from La Financière Agricole (a provincial agency providing financial and

[10] Upon completion, more than 80 individuals are expected to live on the Rang 13 site, which alone represents a 17 percent increase in Saint-Camille's population. By 2013, the Rang 13 project had attracted 25 families from different regions, 75 percent of which were between 25 and 35 years old (MRC Mes Sources, n.d.).

risk management tools in the agrifood sector), while the UPA-controlled supply-management system was seen as obstructing agricultural diversification. On SSI, policy changes such as the MIR were perceived as being developed primarily to address the needs of large-scale agribusinesses, to the detriment of SSI's small-scale farming operations. The absence of agricultural extension agents, funding for research, or infrastructure for SSI farmers were seen as further indications that policy-making and the allocation of funds were no longer geared towards supporting small-scale agriculture.

Second, the challenging conditions facing the new farming generation were a recurrent theme. The lack of available and accessible land and housing emerged as issues tied to multiple factors, including provincial and local zoning and regulations. SSI is home to numerous sensitive ecosystems that are protected by strict Islands Trust regulations. On the limited farmland, high land prices were a significant barrier to entry for potential new farmers. A lack of affordable farm housing, considered to be the result of a combination of local Islands Trust bylaws and ALC rules, was another limiting factor. In Saint-Camille, although the new generation was seen as capable and willing to develop viable businesses on smaller, more affordable acreages, there were multiple provincial regulatory impediments to dividing and building homes on these agricultural properties.

Third, developing and maintaining constructive and inclusive dialogue was a critical factor. A lack of communication with local regulatory bodies and challenges navigating the complexity of policy language impeded the SSIAA. Communication with the community had been crucial in gaining support for the abattoir project, whereas it is believed that a lack of communication inhibited the realization of the composting pilot project. In Saint-Camille, developing strategies to attract new food producers raised questions about the agricultural model desired by the community. On one hand it was widely believed that the conventional model must evolve to solve its systemic issues, although this perspective was tempered by the recognition that the livelihoods of numerous conventional producers depend on the existing system. On the other hand, community members aspired to an alternative approach to agriculture. Ensuring a healthy coexistence between the aspirations of conventional and alternative agriculture was a challenge, but Saint-Camille managed to foster a type of dialogue in which everyone could explore options and develop viable solutions, as opposed to becoming polarized proponents of competing models.

Fourth, both communities strove to find a balanced approach to translating local food and agriculture policies and projects into action in the face of other, at times competing, community priorities and regulatory processes. The SSI AFP helped integrate language supportive of local agriculture in the SSI Official Community Plan (OCP) review process.[11] Still, translating the OCP into land-use applications, bylaws, and other practical actions, as well as navigating the

[11] For example, whereas one of the 1998 SSI OCP objectives was to "support farming as an important traditional land use, lifestyle and livelihood on Salt Spring Island" (Islands Trust, 1998, p. 39), the AFP recommendation to amend and modernize the OCP description of farming land use was accepted. The revised 2010 OCP now supports "farming as a social, cultural and economic priority and an ecologically responsible land use on Salt Spring Island" (Islands Trust, 2010, p. 45).

various legal hoops and regulations, were significant challenges.[12] Conducting feasibility studies and obtaining the required permits to establish facilities that support the expansion of agricultural activities was said to be complicated and consume time, energy, and resources. In Saint-Camille, residential properties on the real estate market were perceived as lacking attractive features (too close to main roads and poor solar orientation), while agricultural properties with attractive real estate characteristics are protected under Québec legislation. Failing to balance the preservation of agricultural land with maintaining vibrant communities can create community and land-use tensions. In the case of the Parc Agrovillageois, provincial legislation and regulations have restricted the capacity of Saint-Camille to develop alternative land-use models on properties zoned as agricultural, even in cases where food production was a central and defining feature of the project.[13]

Fifth, limited jurisdictional power of local governments over local resources and matters that concern, and go beyond, local food and agriculture was another challenge identified at both sites. The Capital Regional District also includes more populous urbanized areas such as the city of Victoria; SSI's (regulatory and related) needs and priorities were perceived as competing against those of urban areas that may have more "weight" in the local government structure. Although tax rates on SSI are similar to the rest of the region, SSI (and the adjacent outer Gulf Islands) was said to have access to fewer services and supports delivered by the Capital Regional District. In the Saint-Camille area, Bowmore Exploration Ltd. announced in early 2011 that it would begin gold exploration activities. Under Québec law, a mining company granted a right to explore, develop, and exploit a mineral deposit can expropriate land, but the final say as to whether mining activity will be pursued ultimately lies with the provincial government. The municipality promptly resolved to reject any mining, oil, or gas project that would undermine the growth of the agricultural sector, including any development that included a risk of contamination or a negative impact on community food autonomy via the loss of agricultural land. The local "Mine de rien" ("mine of nothing") committee was formed to ensure that the provincial mining legal framework would protect the interests of communities and the environment, and to establish a balance of power with the mining industry by informing citizens and defending their right to collectively choose the regional development model that they deemed most appropriate for their community (Comité Mine de rien, n.d.).

[12] The abattoir project illustrates this specific challenge: Because there was no property on the island zoned to host an abattoir, the abattoir is currently operating on a temporary-use permit and on leased land, which does not ensure long-term security.

[13] For example, the Parc Agrovillageois as originally conceived was welcomed by the CPTAQ and opposed by the UPA. Because the UPA primarily represents and defends the interests of the conventional agricultural sector, its priorities are not necessarily aligned with Saint-Camille's efforts to foster community economic development and to increase its population.

Supportive factors

Table 2 lists three factors and practices that supported SSI achievements. Several reports establishing food-and-agriculture baseline data compiled information on, and brought together various facets of, the SSI food system. These reports were central to promoting agriculture on SSI in ways that promoted collaboration and created synergies and positive spin-off effects. Various strategic and project-specific plans drew from this data to illustrate the relevance of, and to justify the financial input required for, the proposed initiatives. This data also served to motivate the SSI community to support SSIAA activities.

Table 2: Circumstances and practices supporting key achievements

Salt Spring Island	Saint-Camille
- Tracking of relevant indicators - Using data to motivate action - AFP process and content	- The co-construction of knowledge and bridge building - The CDSE: a long-term community-municipality partnership - Collective entrepreneurship - Building community confidence in early stages - Food autonomy and agricultural diversification in strategic plan

The inclusive AFP process was instrumental in achieving community support, buy-in, and ownership. The sense of pride in the AFP reported by some interviewees was attributed to its accurate reflection of community needs and priorities. The remarkable extent to which the AFP has been implemented was related to its having given the community a common vision to focus on, rally around, and channel energy and resources towards. The three priority recommendations were a vehicle for community engagement that allowed interest and excitement to translate into action. Other factors contributing to the AFP's traction included timing (the community was already mobilizing around food issues) and the prioritization of key projects. Early progress increased community confidence in the role and work of the SSIAA. Lastly, one Islands Trust Trustee, who was part of the AFP committee, faithfully and effectively supported the AFP implementation process from the beginning.

Five important factors and practices emerged from the Saint-Camille case study (Table 2). The creation of spaces for dialogue enabled Saint-Camille residents to build solidarity and collectively address community issues. By intentionally cultivating openness and fostering a learning ethos, Saint-Camille expanded its set of resources for local development and developed new collaboration opportunities.[14] The CDSE developed projects, initiated community-based

[14] For example, in August 2012, Saint-Camille's community hub Le P'tit Bonheur and the research centre on social innovations (Centre de recherche en innovations sociales, or CRISES) at the Université du Québec à Montréal obtained provincial funding to develop a series of knowledge-sharing workshops bringing together researchers and

reflection processes, and accompanied local citizens in community-driven initiatives. Through extra-local networks, elected representatives helped to secure financial assistance. They also provided the moral support essential to allow the CDSE to fulfill its mandate. One interviewee explained that:

> …the municipality also fosters constant collaboration between organizations, and so in this sense it stimulates the synergy that materializes and the network that this collaboration has created.

This dual focus of creating dynamic interaction within local areas while bringing in perspectives and resources from the wider political and institutional environments illustrates what Shucksmith (2013) calls "networked development." In this sense, dense local networks build social and economic capital, while strategic connections beyond the locality help position the territory to its best advantage. In Saint-Camille, citizens brought together the social benefits of collective action and the power of the local economy to support land-based development projects such as La Clé des Champs and "Le groupe du coin," a local micro-financing investment association empowering small investors to invest locally. Project leaders and active participants engaged many other citizens in the development process by providing ample space to ask questions, expressing concerns, and reflecting on propositions during community forums. Residents reportedly welcomed the proposals because they were extensively consulted, and because common ground was established.

Elaborated in consultation with the community, Saint-Camille's 2008–14 sustainable development strategic plan explicitly includes community food autonomy and agricultural diversification as a means to increase the diversity and availability of local food products (Municipalité du Canton de Saint-Camille, 2008). Another central element of the plan, the concept of "communauté nourricière" (loosely translated as "nourishing community") evokes several aspects of community autonomy and well-being, such as local services and employment, solidarity amongst citizens, a healthy environment, the capacity to utilize local natural resources, and a reduced dependency on external suppliers (Municipalité du Canton de Saint-Camille, 2008).

Discussion

This comparative analysis indicates that Saint-Camille and SSI share at least eleven food system planning features:

Saint-Camille citizens. The more theoretically informed knowledge of the participating professors introduced new perspectives and critical insights, whereas the experiential knowledge of citizens nourished the reflections and analysis of the academics involved (Récits-Recettes, n.d.). By bridging the work of researchers and practitioners, the workshops have fostered innovation and helped to identify solutions to various challenges.

1. Local governments focus on local food systems and agricultural plans.
2. Local governments support entities whose mandates and activities relate to food and agriculture.
3. Community plans integrate food system considerations into local policies and planning.
4. Community-based food and agriculture enterprises increase diversity and availability of local foods and maintain or develop local knowledge and capacity.
5. Food system data supports planning processes and projects, raises awareness, and fosters community involvement.
6. Participatory processes guiding community planning and communication foster community understanding and buy-in.
7. Social and physical infrastructure supports existing farmers, promotes the successful establishment of new farmers, and helps to bring consumers and producers closer together to co-create a more sustainable local food system.
8. Constraints posed by policies, regulatory bodies, and programs are addressed with informed advocacy.
9. Collective entrepreneurship shapes the local food system and builds community.
10. Partnerships of many kinds contribute to building local food systems.
11. Recognition is given to connections between multiple aspects of community health and the characteristics of local food and agriculture systems.

This discussion considers the coinciding features that were identified and explores how, in both Saint-Camille and SSI, local planning processes, policy, and community-led project developments reflect food sovereignty aspirations. Although neither community explicitly names food sovereignty as a guiding concept or goal,[15] three key food sovereignty themes appear in food system change activities in Saint-Camille and SSI: a) local interdependence; b) self-determination and endogenous development; and c) the transformation of knowledge.

Exploring whether and how Saint-Camille and SSI are engaged in initiatives that overlap with or correspond to a food sovereignty framework is interesting because relatively little is known about how expressions of food sovereignty are shaped by local governance and

[15] Canadian local governments appear to shy away from openly and officially embracing the wider affirmation of the right to self-determination called for by Food Sovereignty. However, some communities in the United States are extending Food Sovereignty's right to self-determination into the territory of state law by defying the state on the sale of local foods. As of June 2013, ten Maine towns (Brooksville, Sedgwick, Penobscot, Blue Hill, Trenton, Hope, Plymouth, Livermore, Appleton, and Isle au Haut), two Vermont towns (City of Barre and Town of Barre) and a few California towns had passed Local Food and Community Self-Governance ordinances. Drafted in response to the US Food Safety Modernization Act, these so-called Food Sovereignty ordinances attempt to allow food producers and processors to sell their goods directly to consumers without state or federal oversight, thereby exempting them from state licensing and inspection laws, while pitting towns against state governments (Moretto, 2013; Wilce, 2011).

community dynamics in Canada. Notable exceptions include: the work of Desmarais and Wittman (2014), who researched how groups of farmers, food activists, and Indigenous peoples use the food sovereignty discourse in Canada and identified that the shared goal of this wide range of actors is "to reclaim a public voice in shaping the food system" (p. 17); and *Food Sovereignty in Canada: Creating Just and Sustainable Food Systems,* edited by Desmarais, Wiebe, and Wittman (2011), a compilation of case studies examining a variety of grassroots initiatives through the food sovereignty analytical framework.

Beyond these contributions, the municipal planning perspective, especially in the rural context, is an aspect that has yet to be accounted for in researching what food sovereignty might look like "on the ground." One objective of the following discussion is to contribute to addressing this gap by drawing from the SSI and Saint-Camille examples. A second objective is to briefly consider the relationship and differences between community food system planning and more classical or recognized food sovereignty frameworks. A third objective is to introduce a thought experiment that further explores the possible implications of these findings.

Local interdependence

Both communities are pursuing local interdependence to increase resiliency and food autonomy. Schanbacher (2010) draws attention to how, in the contemporary food system, consumption is divorced from the production process. To explore how food sovereignty seeks to repair this schism, he describes how the Slow Food movement sets aside the producer-consumer dichotomy to center on the notion of "co-producers," a term which refers to consumers who make a political statement by taking an active interest in food producers, their methods, and the challenges they face. Co-producers, whether they are individuals, organizations, or institutions, have a greater stake in the production process. By actively developing an alternative relationship to food, co-producers are also engaging in the co-production of food and agriculture knowledge and capacity (Schanbacher, 2010). This co-production process knits both producers and consumers into a tighter social, ecological, and economic web that fosters more interdependence amongst food system actors. The commitment of Saint-Camille and SSI to become "co-producers" was reflected in the role of collective entrepreneurship in shaping the local food system (food system planning feature #9) and the re-emergence of social and physical infrastructures that support new and seasoned farmers alike, and that bring consumers and producers closer together (feature #7).

Food sovereignty also emphasizes that the social connections inherent in the production, consumption, and sharing of food are opportunities to reclaim control over the food system (Wittman et al., 2010). In Saint-Camille and SSI, community-based food and agriculture enterprises and organizations are increasing the diversity and availability of local products (feature #4). These organizations and enterprises provide opportunities to reclaim control over the food system through maintaining and developing local food and agriculture knowledge. Both the social and physical infrastructure developed by residents of Saint-Camille and SSI can be viewed, following Sumner's (2012) definition of a sustainable food system, as being anchored

within the public domain and involving an interdependent web of activities that build the civil commons. Strengthening the autonomy and resilience of more localized food systems also requires mutually supportive local, provincial, national, and international partnerships and policies (Pimbert, 2008). Both case studies revealed partnerships with local organizations as well as provincial entities that contributed to building local food and agriculture knowledge and capacity (feature #10), yet interviewees also were able to identify and critique a number of unsupportive provincial and federal policies and programs.

Self-determination and endogenous development

Both communities were seeking more local control, which relates to the ways in which the search for food sovereignty is situated within a wider affirmation of the right to self-determination and endogenous development (Pimbert, 2008). Although some Saint-Camille and SSI interviewees saw the limited jurisdictional power of local governments as problematic, both communities were asserting their capacity and intention to engage in local food system planning by developing plans that integrated food system considerations into local policy-making and likewise positioned the local government and community as key players in shaping the local food system (feature #3). Still, finding a balanced approach to translating policies and projects into actions in the face of other, at times competing, community priorities remains a challenge. Nonetheless, by supporting entities whose mandates include strengthening the local food system (feature #2), and by advocating against constraints imposed by state policies, regulatory bodies, and programs (feature #8), both communities were taking concerted action. Participatory planning contexts, another requirement for food sovereignty (Carney, 2012), also feed into self-determination and endogenous development processes. Saint-Camille and SSI both took substantive steps to implement participatory and inclusive approaches to community planning and project development (feature #6).

The transformation of knowledge

Pimbert (2006) emphasizes that the endogenous development of locally controlled food systems requires transforming our ways of knowing by ceding more decision-making powers to local communities, promoting the democratization of research and diverse forms of co-inquiry, and expanding horizontal networks for autonomous and collective learning and action (Pimbert, 2006). Although Pimbert makes this argument primarily from a food production perspective, food sovereignty's call to transform ways of knowing is relevant to the broader context of food system planning. This has been observed in Saint-Camille and SSI, where both communities collected, disseminated, and integrated food system data into planning exercises (feature #5), and where agricultural plans were used to assess the state of the local food system, identify

opportunities, and develop strategies (feature #1). In SSI and Saint-Camille, these features have served to empower civil society to engage with local food policy.

The complexity of environmental and bio-cultural food system interactions also calls for more holistic and transdisciplinary ways of knowing (Pimbert, 2006). The capacity to recognize and leverage new possibilities and synergies is at the heart of the food sovereignty paradigm. In both Saint-Camille and SSI, important connections between the development trajectory of local agriculture and other aspects of community health are recognized and reflected in community planning and project development (feature #11).

Food sovereignty planning?

As shown above, three important food sovereignty themes can be seen within food system planning activities in Saint-Camille and SSI. This overlap raises the question as to whether the existing definitions and language attached to community food system planning (summarized at the beginning of this paper) adequately capture the full breath of aspirations and potentials inherent in food system planning practices and processes that have been observed in places such as Saint-Camille and SSI.

Whereas the SSI and Saint-Camille case studies demonstrate the integration of transformational elements based on bottom-up planning and development processes, and on calls for granting power to communities to shape their own food systems (both of which are core elements of food sovereignty discourses), the community food system planning language is by comparison more politically neutral and primarily focused on producing specific, middle-range outcomes. In other words, local interdependence, self-determination and endogenous development, and the transformation of knowledge politics go well beyond the community food system planning framework when it is understood only as the integration of food system considerations into community planning processes, projects, and policy development. By way of beginning to address this limitation, I propose a brief thought experiment to consider "food sovereignty planning" as a potentially fertile space that occupies the conceptual overlap between food system planning and food sovereignty. In the context of this exploration, food sovereignty planning is presented as the integration of food sovereignty principles into planning, policy-making, and programming at any level of government and in any governance process.

Engaging in food sovereignty planning signifies employing a food sovereignty lens in community food system planning, and thus an alternative approach to local government and community involvement in framing, envisioning, and implementing food system change. Both community food system planning and food sovereignty concepts strive for the emergence of a sustainable food system through multi-level governance interventions. What differentiates the two is that the food sovereignty language more explicitly places social justice considerations at the centre of food system change, names the political and economic power relations inherent in the global food system, and takes a political stance in the current debate concerning the advantages, shortcomings, and future of the contemporary global food system. The goal of food

sovereignty is also to reclaim a public voice and more local control in shaping the food system (Desmarais & Wittman, 2014; Wittman et al., 2010), a process that also may be informed or supported by the framework offered by food sovereignty planning.

Food sovereignty planning also echoes the theory of civic agriculture presented by Lyson (2004; 2007) as a new paradigm under which broader social objectives, beyond narrowly defined economic agendas, drive agricultural development, and where food and agriculture endeavours are engines of local economic development integrally related to the community's social and cultural fabric. Civic agriculture can be understood as "a broad based movement to democratize the agriculture and food system" (Lyson, 2007, p. 19) that must go beyond providing economic and market-based solutions, and embrace commonly held and non-profit spaces in order to reach a more holistic integration of people in place (DeLind, 2002).

A food sovereignty planning approach may also respond to the notion that the municipal movement into food-related issues could be part of a reaction to the loss of national powers in globalization processes (MacRae & Donohue, 2013). It may assist towns and rural communities to develop their capacity to buffer themselves against, or directly challenge, the dominant neoliberal models of industrial agriculture and free trade. The capacity of communities to shelter themselves from the global food system is another tenet of the civic agriculture framework. Community empowering characteristics attributed to civic agriculture include locally oriented agricultural and food production, the integration of farming and food production into regional economies and local communities, a focus on quality products, labour and land intensive production practices (less capital intensive and land extensive), reliance on local and shared knowledge, and direct market links (Lyson, 2004), all of which are reflected to various degrees in the SSI and Saint-Camille case study findings.

Because food sovereignty unequivocally values food providers, food sovereignty planning may also uniquely capture the needs, constraints, and aspirations of the rural communities that are home to the majority of Canadian food producers. Finally, it is possible that integrating food sovereignty considerations into food system planning would bolster the potential of planning activities to support meaningful changes in the well-being, living environments, and livelihood choices of local residents.

Nuances

Whereas this paper focuses on the abilities of rural communities to engage in (re)shaping their local food system—an important component of food sovereignty—multiple other components of food sovereignty are not addressed. Food sovereignty has been discussed in the literature as a holistic concept that demands profound systemic changes on multiple fronts in order to be realized (Desmarais & Wittman, 2014; Patel, 2009; Pimbert, 2008; Schanbacher, 2010; Wittman et al., 2010; 2011). It is important to understand "food sovereignty planning" as pointing to features and processes aligned with key elements of the food sovereignty framework,

as opposed to a final state in which food sovereignty, in all its complexity and multiple layers, has been achieved through community planning.

This research did not identify substantive tensions within SSI and Saint-Camille related to the described food system initiatives. However, in theory, the full expression of food sovereignty planning could be expected to result in the emergence of tensions whose intensity is closely linked to the depth to which communities are willing to engage with the food sovereignty concept. The level of awareness of the breadth and history of the concept may play a significant role in shaping this depth of engagement. This points to an opportunity for food sovereignty planning to help bridge theory and action within food system change.

Conclusion

This paper builds on food system planning research by documenting and comparing the ways in which the two small rural communities of Saint-Camille and SSI engage in food system planning. The investigation of challenges and best practices leads to the identification of 11 food system planning features common to Saint-Camille and SSI. These 11 features suggest the presence of food sovereignty themes in governance planning processes, project development, and community-led initiatives. This research draws on food sovereignty theory (Carney, 2012; Pimbert, 2006; 2008; Schanbacher, 2010; Wittman et al., 2010) to identify three key food sovereignty themes present within food system change activities in Saint-Camille and SSI, namely: local interdependence; self-determination and endogenous development; and the transformation of knowledge.

The term food sovereignty planning is introduced in response to the—sometimes unrecognized and under-theorized—connections between community food system planning and the food sovereignty frameworks. Placing food sovereignty concerns closer to the heart of planning processes may provide useful bridges between advocacy and planning in the community food system context, which may increase the potential of planning activities to build just and sustainable food systems. However, additional research is needed to conceptually elaborate and evaluate food sovereignty planning as a planning framework for local rural governments. More specifically, there is a need to go beyond agriculture and "farmlands" to include Indigenous food systems and the notion of "foodlands,"[16] whereby the activities and traditions of hunting, fishing, and gathering may be part of community planning processes.

[16] The term "foodlands" has been used for several years by the Capital Region Food and Agriculture Initiative Roundtable (CRFAIR) to emphasize the importance of recognizing, respecting and promoting Indigenous food systems in achieving a sustainable agricultural sector and food system in British Columbia. The CRFAIR is an organization working towards strengthening the regional food system and community food security.

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Original Research Article

Challenges to acquiring and using food literacy: Perspectives of young Canadian adults

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Abstract

The purpose of this qualitative, grounded theory study was to explore the concept of food literacy from the perspective of young Canadian adults who recently transitioned to independent living. Seventeen individual, in-depth interviews were conducted with Canadian university students from this target group. Results suggest that young adults face significant challenges with regard to healthy eating as well as acquiring and using food literacy. The three main reasons for these challenges were: a lack of food and nutrition education prior to independent living throughout home and school environments; time-constraints; and complex food relationships. This study will add to the existing body of literature by exploring the food experiences of young adults and the concept of food literacy from their perspectives, thereby strengthening theoretical foundations.

Keywords: Food literacy, young adults, Canada, qualitative research, food skills

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Introduction

Evidence demonstrates a reduction in food and nutrition knowledge and skills in the general population, contributing to serious public health concerns that include obesity and other nutrition-related chronic diseases (Caraher & Lang, 1999; Cutler, Glaeser, & Shapiro, 2003; Jaffe & Gertler, 2006). Obesity rates have risen alongside increased consumption of processed and ultra-processed, low nutrient, and energy-dense foods, including sweetened beverages that are typically mass-produced, heavily marketed and readily available (Moore & Rideout, 2007; Popkin, 2001; Ustjanauskas, Harris, & Schwartz 2014). This has also contributed to increased away-from-home food intake and eating outside traditional meal structures (i.e., eating at the kitchen table in homes or eating at regular times of the day) (Warde, 1999). This shift, coined the "nutrition transition" (Popkin, 2001), has been facilitated by changing social roles and norms including more women working outside the home, time scarcity, decreased family meals, and fewer opportunities to learn basic food skills in school and at home (Agriculture and Agri-Food Canada, 2007; Slater, 2012; 2013; Smith, 2009; Smith & de Zwart, 2010; Zayak-Reynolds, 2004).

Concurrently, there is concern that people are becoming increasingly "de-skilled" regarding fundamental food planning, food preparation, and nutrition knowledge, in the context of increasingly complex foodscapes (Jaffe & Gertler, 2006; Lang & Caraher, 2001; Scrinis, 2007). "Food literacy" has emerged as a possible framework and promising approach to "re-skill" people with necessary and relevant food related knowledge, skills, attitudes, and values (Desjardins & Hailburton, 2013). Although definitions vary, Vidgen and Gallegos (2014) define food literacy as "a collection of inter-related knowledge, skills and behaviours required to plan, manage, select, prepare and eat foods to meet needs and determine food intake", as well as, "the scaffolding that empowers individuals, households, communities or nations to protect diet quality through change and support dietary resilience over time" (p. 54).

In order to effectively address the multi-faceted issues highlighted above, it is essential to understand how young adults navigate their food environments and cope with the corresponding challenges. Young adults' dietary habits are among the poorest of all age groups, with high rates of fast-food and soft drink consumption and low rates of adherence to national recommendations for fruit and vegetable intake (Nelson, Story, Larson, Neumark-Sztainer, & Lytle, 2008; Paeratakul, Ferdinand, Champagne, Ryan, & Bray, 2003; Pelletier & Laksa, 2012). Additionally, some food habits developed by young adults are often associated with poor diet quality including: irregular meal patterns; meal skipping; frequent snacking (Al-Rethaiaa, Fahmy, & Al-Shwaiyat, 2010; Kremmyda, Papadaki, Hondros, Kapsokefalou, & Scott, 2008; Šatalic, Colic Baric, & Keser, 2007); and frequent consumption of commercially prepared meals, such as takeaway food, pre-packaged, or restaurant meals (Burns, Jackson, Gibbons & Stoney, 2002; French, Story, Neumark-Sztainer, Fulkerson, & Hannan, 2001; Nicklas, Myers, Reger, Beech, & Berenson, 1998).

Using a qualitative approach, this study explored the complexities of acquiring and using food literacy from the perspective of Canadian university students who recently transitioned to independent living. This research study was approved by the Joint-Faculty Research Board of Ethical Review at the University of Manitoba.

Methods

This study used a grounded theory approach. Grounded Theory seeks to construct theory from issues of importance in peoples' lives (Corbin & Strauss, 2008; Glaser & Strauss, 2009) and is suitable for the investigation of complex multifaceted phenomena such as food literacy. Study participants included seventeen students from two universities in a mid-sized Canadian city. Participants demonstrated the following characteristics: they ranged from 18 to 25 years old; were responsible for feeding themselves; had transitioned to independent living within the last two years; had never studied in the Department of Human Nutritional Sciences at the University of Manitoba; and were Canadian citizens. Purposive and theoretical sampling techniques were used to recruit eligible participants (Charmaz, 2006; Ritchie, Lewis, Nicholls, & Ormston, 2013).

Participants were interviewed individually in a private room and took approximately 30 to 45 minutes to complete. A semi-structured interview guide which had been tested for face validity was used. Demographic information was also captured.

Table 1: Sample semi-structured interview questions

Can you describe what you ate yesterday?
Where did you learn about food from, such as certain skills (e.g., cooking, shopping, and growing) or eating habits?
Do you eat differently now that you have the main responsibility for your own food? How and why?
When buying food, what's important for you to know?
What do you consider "healthy eating" to be?
Do you think you know how to eat healthy?
What feelings do you associate with food?
How important do you think food is in order to live well or have a high quality of life, if at all?

All interviews were digitally recorded, transcribed verbatim, and replayed while re-reading the transcribed interviews for accuracy. After each interview, the primary researcher took detailed field notes regarding general thoughts, assumptions, and behaviour observed throughout the interview.

Data analysis began during the transcription of interviews in accordance with grounded theory methods. The constant comparative method was used to analyze the data (Charmaz, 2006). NVivo9 QSR International Software (2009) was used for the coding process. Initial codes/categories guided subsequent interviews and analysis. First level codes were ranked to reveal those coded most frequently, and those coded for the majority of participants. These were used to construct more

theoretical categories of focus. Focused coding (directive, selective, and conceptual) was used to synthesize and understand the main themes (Charmaz, 2006). Emergent cases were compared with existing cases, and were compared across categories and themes. During data analysis, diagrams were developed for each participant to facilitate the constant comparison method through comparison of participants based on similarities and differences.

Results

The following major themes and subthemes emerged, reflecting complex challenges and opportunities participants experienced around food literacy while transitioning to independent living: (a) food learning & experiences; (b) competing priorities & interests; and (c) complex food relationships.

Food learning & experiences

Food learning and experiences were the primary precursor to the development of food literacy. Prior to transitioning to independent living, this occurred primarily through the home environment, mainly from mothers. The school environment (formal education) was also a source of learning, but minimally.

Home environment

Three sub-themes emerged from analysis of food literacy in the home environment: parents' influence, participation in food-related activities, and food and nurturing.

The first sub-theme of the home environment was parental influence. Participants identified both "healthy" and "unhealthy" ways in which their parents' food habits influenced their eating practices and food choices prior to and while living independently. Commonly, participants compared and related current food practices to how they were raised.

> "...my mom's super healthy, that's kind of just how I've been raised so it's normal for me." (Female)

> "My mom is like a grilled cheese, Rice Krispie™ square kind of person…So it's just kind of the way I operate now." (Male)

Food and nutrition knowledge and skills taught by parents were varied, and frequently related to parents' or mothers' food and nutrition knowledge and skills. Most commonly, participants described learning basic skills related to food preparation, meal planning, and grocery shopping, as well as basic nutrition information such as healthy foods, portion sizes, and the four food groups.

> "...my mom is a nurse and she, I guess by having kids, she was probably aware of it more, but once she had us kids she totally picked up on healthy eating and that's important to her and she taught us the Canada Food Guide and tried to plan meals based on that so as we were growing up we were very aware of the different food groups." (Female)

One student grew up on a farm and described learning about agriculture in addition to basic food and nutrition knowledge and skills.

> "I grew up on a farm also so we always had a big garden in the summer. My dad raises beef and sheep. So, I had a lot of education I guess. We used grass fed meat and beef so it was kind of always in my house, education on quality food and healthy food, just coming from an agricultural background." (Female)

While some participants described positive food and nutrition learning experiences from their parents, almost half of participants stated that their parents made food choices they considered to be unhealthy. This was primarily attributed to: poor food skills; busy family schedules; and/or negative attitudes around cooking, which contributed to increased consumption of processed convenience and takeout foods. Some participants were interested in healthy eating after transitioning to independent living and did not equate their current food skills, knowledge, and practices to what they learned from their parents while living at home. One young man explained that he was eager to gain independence with regard to food choices once he moved out of his parents' home due to their unhealthy food habits.

> "I was actually pretty excited to get out of the house and stop eating the food that my parents were buying." (Male)

Participants' food learning in their home environment encompassed various values and attitudes as well, sometimes having negative effects on participants' food habits and relationships. A young woman compared her attitude toward cooking to her mother's, who perceived cooking to be stressful and a lot of work.

> "My mom always complained how much work, like for me thinking of cooking I automatically think that's a lot of work but really I don't think it is. It's just 'cause of how I was raised." (Female)

This participant, who currently does not participate in food preparation from whole ingredients, elaborated on why her mother did not cook for the family.

> "...she was working and taking care of three kids. She felt too stressed to be able to cook because all of us didn't agree on what we liked to eat…So she decided that everyone kind of make their own thing after a while. So, yeah, we had a lot of quick stuff." (Female)

A second subtheme relevant to the home environment was participation in food-related activities. The majority of participants described minimal hands-on participation in food preparation, meal planning, grocery shopping, and other food related activities when growing up. Rather, food-related learning occurred primarily through observation of their parents' food habits.

> "Like my mom would always cook so I'd see it but I never would do it on my own." (Male)

Three participants described having greater hands on participation in meal preparation, and were given more significant responsibilities by their parents.

> "I learned a lot from my mom, I cooked a lot at home when we were younger because we were four of us. So, we all kind of helped out with stuff like that." (Female)

This participant described acquiring a high level of food literacy while in her parents' home. This was demonstrated through: regular participation in household food related activities (e.g., cooking, meal planning, and grocery shopping); nutrition knowledge (e.g., understanding of healthy meals); ability to grow food; and positive attitudes expressed around food and eating. This participant continued with similar food habits and used these skills after transitioning to independent living.

> "...me and my sister lived together our first year in university and every once in a while you'd have your friends over for dinner and they'd come over and they'd be like 'oh my god, you cook like this every day!?' And we're like 'oh this is how we grew up having a good solid dinner with your meat and your vegetables and your potatoes or rice'." (Female)

The two participants who had more significant food responsibilities growing up did not use the skills they acquired from their parents once they transitioned to independent living. One young man explained that he was aware of the poor nutritional quality of his diet, but was not interested in practicing the food and nutrition skills/knowledge he had learned at home.

> "As a kid we used to have to plan one meal a week for the family. So we had to plan a starch, a vegetable, a protein and then we

> would usually help cook that meal as well... I know how to cook. I think I'm pretty good at it. I just don't... I know how to, I know what is good for me, I just don't care a lot of the time." (Male)

The other student cooked meals from scratch for her family from the age of eight years old. When this young woman initially started living on her own, she chose processed convenience food products, which she attributed to disinterest in cooking. Eventually she began planning and preparing her meals from scratch for health and economic reasons.

> "...when I first moved to the city because I had this new found freedom, I didn't want to cook, I didn't want to waste my time cooking... I bought a lot of prepared stuff." (Female)

The third subtheme under the home environment was related to food and nurturing. Several participants described this as their mother's role. One participant described the homemade pasta sauce he ate the day before his interview.

> "Yeah it was some homemade stuff that I got from my mom cause I went out for the weekend and brought some back." (Male)

However, participants regularly discussed their mothers as nurturing or providing acts of love with foods they considered to be unhealthy. For example, a participant described the "home cooked" meals his mother made for him growing up as remaining his preferred meals today, despite his mother's lack of food preparation skills or traditionally recognized "cooking".

> "Like it wasn't elaborate home cooked meals it was just chicken fingers and honey dill which now those are my favorite things. You get those home cooked meals, to me its chicken fingers and Tator Tots." (Male)

A young woman implied the significance of preparing meals as an act of love and nurturing when she defended her parents for using takeout and convenience foods as a way to cope with time constraints.

> "Well we ate good meals and everything it was just that my parents didn't have the greatest eating habits. They would get home at 9 o'clock and 'oh what are we going to have for supper', 'well, let's just order in a pizza'." (Female)

In this case, the act of feeding is separate from the act of "healthy cooking". In response to whether or not her parents cooked, she said:

> "They cooked all the time. I mean I'm giving them a really bad image here. It's not like they didn't cook for us but it's just like

> they kind of took the easy route when they could. But they would make us meals all the time." (Female)

Another participant explained that he eats healthier now that he lives on his own because his mother gave him snack foods considered to be unhealthy.

> "I ate lot more junk food when I was living with my mom because she bought it for me. So, I kind of ate a lot more candy and chips because she liked to give me snacks and chocolaty granola bars and stuff and yeah pop like we usually had a drawer full of pop in the fridge." (Male)

In summary, the home environment had a significant influence on the development of food literacy. This was primarily through parental influence, participation in food-related activities, and nurturing through food.

School environment: Home economics food and nutrition education

Another place where food learning and experiences occurred was the school environment. The majority of participants took at least one Home Economics Food and Nutrition (HEFN) class through their formal (grades K to 12) education. Overall, participants felt this education did not help prepare them to manage food-related activities in a healthy way once they transitioned to independent living. In response to whether or not the HEFN education received facilitated management of food, a young woman stated:

> "It taught me how to make a few dishes but other than that I wouldn't say so." (Female)

Reasons for discontent with HEFN education varied. Most commonly, participants expressed issues with the curriculum; particularly that HEFN education was only about cooking and included little or no nutrition education. When participants discussed learning about food preparation or cooking in school they implied that this education was not valuable, possibly due to a lack of interest in cooking at this stage of their lives. However, this contradicted agreement amongst participants that food preparation skills were important to have for independent living and health, which they declared in other parts of their interviews.

> "...they didn't offer home ec...until you were in grade 10 and then we didn't really learn much nutrition or anything. We just learned how to cook recipes." (Male)

Other concerns participants had with the curriculum included: little to no education on grocery planning and shopping, portion control, and strategies to avoid food waste.

> "...they don't teach you enough about when you first move out. Grocery shopping's really hard to plan what you want to buy. They don't teach you enough about that. Like portion control, like what am I going to eat for the next few days so you're not wasting stuff." (Male)

Overall, the school environment, particularly HEFN education, appeared to impact food literacy minimally from the perspectives of students.

Competing priorities & interests

Two subthemes emerged through analysis of this area of food literacy: time constraints, and food and meal habits. Participants perceived that their desire to eat healthy frequently collided with time constraints. This often influenced their food and meal habits by increasing reliance on convenience foods/meals and decreasing time spent cooking meals from whole or more basic ingredients.

Time constraints

Time constraints were a significant barrier to healthy eating experienced by participants. The majority of participants struggled to balance food-related responsibilities, school work, and paid employment. They frequently expressed lack of time management and planning skills to facilitate grocery shopping, planning meals in advance, and cooking.

> "... a few months ago I switched living arrangements and also my work and my school schedule was kind of complex so I didn't have much time to prepare meals. I'd have to leave in the morning and be in school all day and then I have an hour and then I'd have to go to work till like after 7. So, and then it takes like an hour to make the meals. So, I was really burnt out, so that was the difficulty, just the time. I didn't really plan it out very well." (Male)

Another participant, despite having cooking skills, identified meal planning as her most significant challenge, which contributed to increased consumption of convenience foods requiring little preparation and decreased intake of a variety of foods.

> "Probably just the meal planning itself, like I have no idea what I'm going to eat for supper tonight...It's just thinking of variety and planning ahead of what to make because then I don't just want to be like 'oh, I don't have any time, I didn't think of anything, so I'll just have pasta'. I don't just want to have Kraft Dinner every night." (Female)

Several participants expressed a desire to have learned more of these particular planning and time management skills.

> "I wish I learned more about time management and how to deal with work and school and cooking and how to plan. But I just kind of went with the flow." (Female)

One young man explicitly attributed his poor eating habits to being a student and the associated time demands of this role.

> "I think that's kind of how I viewed it up until now is that this is temporary and I'll change it at some point. Once I'm done school I think is sort of the obstacle that's in my mind like 'oh once I'm done school maybe I'll have extra time'. But when you put it like that that kind of sounds foolish. There's always some reason not to." (Male)

Food & meal habits

The majority of participants coped with their busy lives by preparing convenience foods because these foods take little time to prepare and are easy to make.

> "Finding the time to cook meals because we both had to work full time jobs and whatever is fast and easy to cook that's what we usually did...Kraft dinner, noodles, anything like that." (Female)

In turn, this also contributed to decreased frequency of preparation of meals from whole and fresh ingredients, as well as a desire to do so.

> "My life is pretty fast paced so sometimes you just want to stop in for 20 minutes, eat and then leave as opposed to making sure you have all the stuff, cooking half an hour or 40 minutes, and then eating it." (Male)

Several participants, some with high levels of self-reported food preparation skills, coped with time constraints by skipping meals altogether.

> "No, because we hadn't done groceries in a while and I've been super busy with my thesis, I kind of put off eating, so it's like 10 at night and I will realize that 'Oh, I didn't eat today'." (Female)

In some cases, meals were replaced by portable snack foods that could be consumed on the go.

> "I think I'm eating a lot of sweets actually. Like cookies and granola bars and things like that. Like they're more like packaged and they're just easy snacks. And I know it's not healthy but it's just something quick to grab and go." (Female)

Although less common, some participants prioritized food in their lives and were able to maintain healthy food habits despite work/school/life responsibilities. Most commonly, these participants enjoyed the procedure of cooking and preparing meals. Several participants attributed their interest in food and health to their enjoyment of cooking.

> "The whole me liking cooking I felt, I don't know, it's nice to make it healthy instead of just sugar fat filled and salty dinner [sic]." (Male)

Participants who prioritized preparing food from whole ingredients coped with time constraints by making large batches of soups or stews to create leftovers. For these participants, leftovers allowed for convenience and time efficiency without the reliance on processed convenience foods or meals.

> "I usually make a big pot of whatever it is. Like lentils with chilli and then I just throw it in the freezer." (Male)

In summary, competing priorities and interests, such as school and work commitments, often acted as a barrier to healthy eating. These perceived time constraints affected the food and meal habits of participants often in nutritionally unfavourable ways.

Complex food relationships

Participants' relationships with food were highly complex. Participants identified various aspects of food in their lives as contributing to positive or negative emotions/feelings, but neutral relationships to food were also expressed.

Positive relationships

Most participants described their relationship with food as positive, primarily due to their enjoyment of eating.

> "I like to eat so it makes me happy when I'm eating for sure. So that's definitely a pick me up. I guess I just like to eat, so that's pretty much it." (Female)

Participants who enjoyed cooking were more likely to have healthy and positive food relationships compared to those who did not enjoy cooking. These participants positively associated cooking with health, connectedness, pleasure, and self-satisfaction.

> "Just feeling good, feeling healthy too like when you cook that stuff you feel like you're doing good for yourself and happier than eating something processed and bad for you, so positive." (Male)

Three participants (two female and one male) enjoyed sharing food with others in social situations and believed this to be a healthy way of eating as well as a positive contributor to their relationship with food. Additionally, participants who enjoyed the social aspects of food and eating were more likely to participate in and enjoy cooking.

> "...well food, it's always positive to me I think and because I don't live alone and because I go out with friends and everything, so food is definitely a social thing. And I like that because it brings people together; it's good. But also the process of cooking is also fun when you cook with someone else." (Female)

Negative relationships

Approximately one quarter of participants described disordered eating habits and negative relationships with food, which impacted food choices and created feelings of fear, guilt, and obsession around food. One young woman attributed her binge eating to her low emotional state after moving to a new country. This young woman highly valued healthy eating and home prepared foods.

> "I think what mostly played a role in there is that I moved there, and it was really hard the first few months, I had a really hard time. So, I had a lot of binge eating episodes. I was so down so I would just go and get some junk food and eat it all, so much." (Female)

Another participant, who experienced regular binge eating episodes, described his relationship with food as an addiction. This participant would often not eat until the evening and then would eat processed, convenience foods and meals until he would be physically ill.

> "When I'm food sick, like in the morning, I'll always say, it's like a hangover, 'oh I'm never gonna do that again', 'why do I do this to myself?' 'why did I eat three taquitos?' for some reason and you

> say you're never going to do it again but then later you're in Sev and it's 2:30 and hey what else are you going to eat, you feel hungry, you have that taste in your mouth already but you don't think about the consequences. It's like an addiction, like any other." (Male)

Another participant attributed her eating disorder (bulimia) to perceived pressure to be perfect, which was coupled with a fear of gaining weight.

> "...there were lots of outside issues I guess, there was pressure to be perfect and fear of gaining weight and fear of not like looking good." (Female)

When this young woman lived in her family home she would frequently prepare meals for her family from a very young age. However, due to a lack of interest in cooking when she first moved out of her parents' home she consumed mostly prepared, processed, convenience meals which negatively impacted her pre-existing eating disorder.

> "When I moved out on my own and when I was getting all the prepared food, before I started getting the healthy food, I had left home with an eating disorder and it had been sort of okay like it had stopped for a while and then when I moved out on my own, I had a really bad I guess relationship with food, like my eating disorder blew way out of proportion when I was eating all the prepared stuff."

For one participant, her disordered eating patterns stemmed from an obsession around calories and nutrient avoidance in order to lose weight. Although this participant was highly interested in nutrition and caloric intake, she lacked basic food and nutrition knowledge and skills.

> "I kind of got obsessed with it like before. I kind of have a love-hate relationship with food. Yeah, it's kind of bad. I am trying to eat for energy you know. Not try to, I don't like measuring, I used to measure everything and kind of like, kind of made me a bit sick." (Female)

Some students described negative feelings such as laziness and dissatisfaction when they ate convenience foods. A young man explained the difference in how he felt when he made a "microwaved" meal compared to a home cooked meal from whole ingredients.

> "Whenever I microwaved anything and ate it I feel like it just wasn't the best for me most likely and also, makes you feel kind of lazy and there's no satisfaction out of it. When you make your own

> meal and it tastes good and looks nice it just, there's a little bit of self-satisfaction for sure." (Male)

Another area of distress for some participants was making food choices in the vast array of food products available, and trying to keep up with the latest "superfood" trends. Participants expressed feeling frustrated, confused, and overwhelmed when deciphering conflicting nutrition messages given by the food industry and health professionals.

> "...it's really confusing like you hear foods that help you combat depression and like you know different, or reduce your risk of heart disease and stuff. It's like so much information especially for someone like who doesn't know much about it. It would be nice to have it simple and stuff and like on food packages a lot of them say like this is like health tech or something like on orange juice. Then like people say orange juice is really bad, because it has so much sugar. Yeah it's just confusing." (Female)

Neutral relationships

Although less common, a few participants did not express positive or negative feelings toward food and eating. One participant identified his relationship with food as neutral while acknowledging differing views and relationships people have with food.

> "Well I don't know, I'm kind of neutral because you know there's one side of it, food as fuel and that's it and then the other side I guess can be sensual, or whatever, like trying new things out and experiencing the world differently. You know like Folklorama, you know, 'try different cultures' and stuff like that. But I guess overall, I'm neutral." (Male)

One participant stated that the main role of food and eating in their lives was to survive.

> "Well it's just you got to eat to live so it's whatever." (Female)

Another participant explained that he chose foods that "fill" him up as opposed to selecting foods based on health or enjoyment.

> "...usually because again for the whole breakfast scenario instead of spending unnecessary money on food that won't fill me up it's just easier to plan ahead and eat that." (Male)

In summary, participant's complex relationships with food contributed to their well-being in different ways. Some had positive relationships through enjoyment of eating and cooking,

individually and socially. Others had negative relationships and disordered eating habits, undesirable feelings toward food and eating, and weight loss preoccupation. A few participants described neutral food relationships centred on food as "fuel" or a survival tool.

Discussion

Overall, the results of this study suggest that young adults face significant challenges with regard to acquiring and using food literacy, which appear to influence food choices. Key reasons for these challenges were: a lack of food and nutrition education prior to independent living through home and school environments; competing priorities and interests (time constraints); and complex food relationships. As well, these results highlight the current complex food environments inhabited by these young adults.

Although a few participants described greater food-related responsibilities while growing up, in general, participants described minimal hands-on participation in food preparation, meal planning, grocery shopping, and other food related activities. Additionally, almost half of participants in this study stated their parents made food choices considered to be unhealthy (e.g., processed, convenience meals and snack foods, and take-out meals/foods) due to poor cooking skills, busy family schedules, and negative attitudes around cooking. This may have negatively impacted the nutritional quality of participants' diets as well as the ability to gain hands-on experience in food preparation with family members. These results are consistent with existing research that links a decrease in home-based food and nutrition mentoring with current and subsequent generations becoming increasingly "de-skilled" regarding food preparation and planning, making them dependent on mass-produced convenience foods (Beagan, Chapman, D'Sylva, & Bassett, 2008; Höijer, Hjälmeskog, & Fjellström, 2011; Larson, Perry, Story, & Neumark-Sztainer, 2006; Vidgen & Gallegos, 2011; 2012). This has been shown to be even more concerning in vulnerable youth, as shown by Desjardins and Hailburton (2013).

Schools and Home Economics Food and Nutrition (HEFN) education could be seen as part of the solution to food "de-skilling". Results from this study indicate that formal education (grades K to 12) was a minimal source of food and nutrition learning for participants and did not facilitate healthy management of food after participants transitioned to independent living. This in part may be due to a lack of interest in food at this stage of their lives. As well, there is concern that HEFN curriculum may not be reflective of current food and nutrition knowledge, issues, and contemporary lifestyles. While significant challenges exist with regard to HEFN programming, several authors argue that if children and adolescents are not being taught fundamental food skills at home, HEFN education should fill this gap in order to "re-skill" and prepare youth to effectively navigate the increasingly complex modern foodscape in a healthy way (Fordyce-Voorham, 2011; Litchenstein & Ludwig, 2010; Slater, 2013).

Participants mentioned having restricted time for preparing healthy, nutritious meals primarily due to busy schedules, balancing university workload, and paid employment. In order

to cope, participants used processed convenience foods at home or on the run, fast food, or skipped meals altogether. Perceived time constraints decreased the frequency and desire to prepare meals with multiple steps from fresh ingredients, and reinforced participants' need and desire for foods/meals that are quick and easy to prepare and eat. This is consistent with current Canadian research which shows a trend for products that take little or no time to prepare (Zafiriou, 2005).

The food environment influences people's food choices as well. According to Moubarac and colleagues (2013), eighty percent of the Canadian population has diets consisting of more than fifty percent ultra-processed food products. Ultra-processed products are industrial formulations made mostly or entirely from industrial ingredients, commonly containing little or no whole foods (e.g., cake mixes, pastries, soft drinks and 'energy' drinks, margarines, 'instant' packaged soups, poultry 'nuggets') (Monteiro, Levy, Claro, Castro, & Cannon, 2010; 2011). The convenience and ultra-processed foods in contemporary food markets are typically mass-produced, "branded," and heavily marketed by a multi-billion dollar food industry (Moore & Rideout, 2007; Moubarac et al., 2013; Ustjanauskas, Harris, & Schwartz, 2013). These foods are readily available at supermarkets, restaurants, vending machines, and other retail venues (Glanz, Basil, Maibach, Goldberg, & Snyder, 1998) contributing to increased away-from-home food intake and eating outside traditional meal structures (Warde, 1999).

Although less common, some participants prioritized food in their lives and were able to maintain healthy food habits in the midst of work/school/life balance. Most commonly, these participants had food learning opportunities prior to living on their own and enjoyed the procedure of cooking and preparing meals. Participants who prioritized preparing food from whole ingredients coped with time constraints by making large batches of soups or stews to facilitate leftovers. Existing studies indicate that increased diet quality is associated with greater frequency of cooking and using more complex preparation steps (Larson et al., 2006; Thorpe, Kestin, Riddell, Keast, & McNaughton, 2013). Therefore, this study suggests that creating food learning opportunities prior to transitioning to independent living could potentially pique interest in cooking, which was associated with a variety of healthy food behaviours.

Finally, interconnections between participants' food literacy, food environments, and competing priorities and interests shaped their complex, emotional relationships with food. While most participants related positive emotions with food due to an enjoyment of eating, approximately one quarter of participants described perceived problematic and unhealthy relationships with food such as disordered eating patterns, including binge eating and food addictions. Possible solutions to these issues are complex and multi-faceted. However, this study has contributed to our understanding of the barriers to and enablers of food literacy, which may facilitate practical recommendations for program development and policy. The following food literacy framework may serve as a starting point to inform future programs and education.

Food literacy: barriers & enablers framework

Figure 1 is a conceptual map which emerged from the interpretation of study results. The framework links barriers and enablers to acquiring and using food literacy (knowledge, skills, attitudes, and values) perceived by participants as important to health. The most significant barrier or enabler, *prior* to independent living, was food learning opportunities in home environments through parents. Individual interest in cooking and health and perceived time-constraints played a pivotal role in the utilization of food literacy *after* transitioning to independent living. Broad components of food literacy which emerged from this study are aligned with several existing food literacy definitions and frameworks (Schnögl et al., 2006; Slater, 2013; Vidgen & Gallegos, 2011; 2012). Together, each component of the framework potentially impacts food choices, and ultimately, health and well-being.

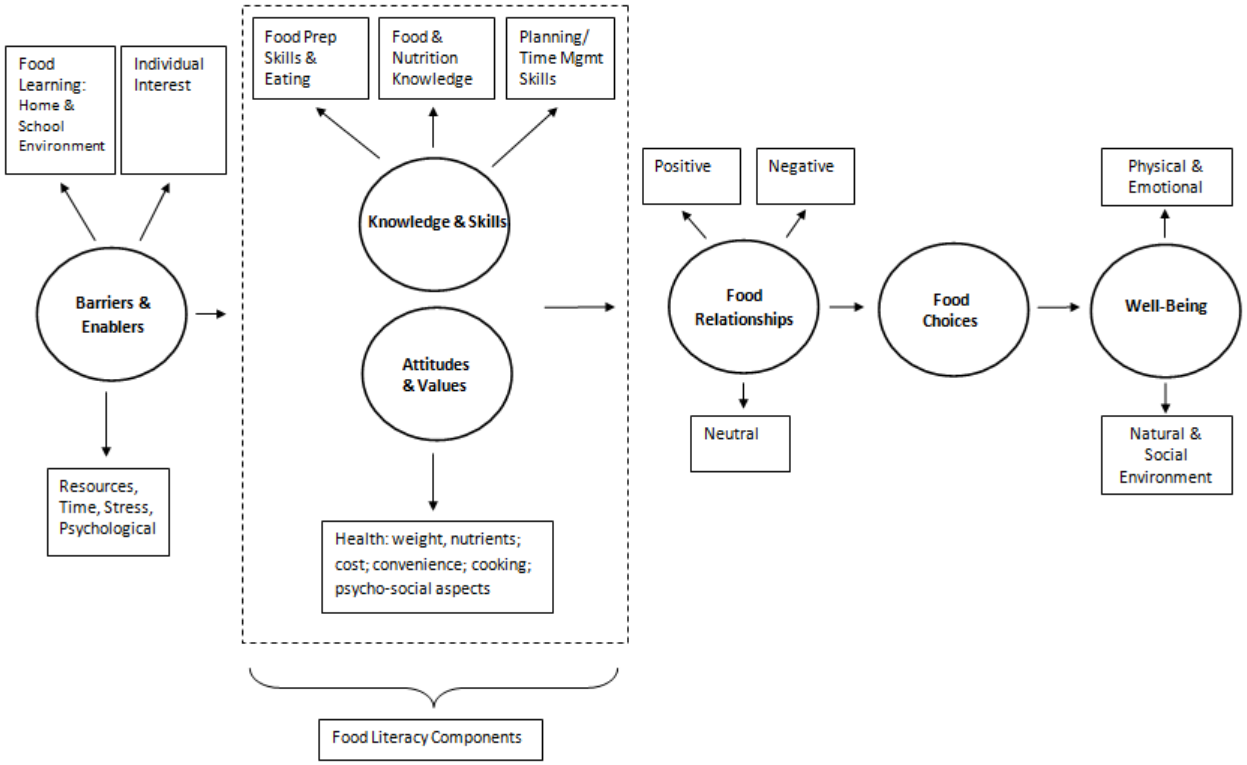

Figure 1: Food Literacy: Barriers & Enablers Framework

Moving forward, this framework has important implications for food and nutrition education programs, policies and research. First, the framework addresses key challenges or barriers that are associated with acquiring and using food literacy and can therefore be considered in the planning of food and nutrition education, programming and policy. Further, each food literacy component in this framework encompasses a wide spectrum of food-related knowledge, skills, attitudes and values that could be applied to curriculum and program development. Also, this framework sheds light on the complex roles played by "food

relationships" in individuals' food choices, which is relevant in developing food literacy. Finally, this framework offers a holistic representation of food literacy by including contextual influences and the potential relationships towards health and well-being.

This framework can provide a starting point for further research, including exploration of the scope and boundaries of food literacy. It is necessary to empirically define and measure the components of food literacy, as well as the linkages and pathways between food literacy and well-being. Research is also needed to examine how to best develop food literacy through family, cultural, educational, and private sector institutions.

Strengths and Limitations

A strength of this research is that it is among the first studies to explore the emerging concept of food literacy from the perspectives of young Canadian adults. This has enhanced our understanding of participants' food experiences, including challenges towards acquiring food literacy. The first limitation is the small sample size of Canadian university students in western Canada who may not be representative of views and experiences of young adults from other backgrounds and geographical areas. Second, the study did not quantitatively examine the food/nutrient intake of study participants, limiting the ability to draw conclusions about the diet quality of participants. As well, the study did not quantitatively measure "levels" of food literacy, limiting the ability to discuss participant's individual food literacy. Finally, the study did not capture the full breadth of influences on the development and utilization of food literacy, which is highly complex due to individual (biological and psychological) and contextual factors.

Conclusion

This study has illuminated challenges and opportunities toward acquiring and using food literacy from the perspectives of Canadian young adults who recently transitioned to independent living. Possible solutions to these challenges are diverse and multifaceted, and depend on further research into personal, social and environmental contributing factors as well as health-related outcomes.

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Event Review

BPLTC III: Food Control (Contrôle alimentaire)

OS Fermentation (Leila Nadir & Cary Peppermint—Eco Art Tech)
Milpa Polimera (Arcangelo Constantini & Marcela Armas)
Evigaturen (Signe Liden)

Curators: Aurélie Besson, Ariane de Blois, Blake Hargreaves, Benoit Palop
Eastern Bloc, Montreal, QC. January 14 to February 3, 2016.

Review by Pamela Honor Tudge (Concordia University)

Food is an ever-compelling topic for artistic interrogation. In Eastern Bloc's recent exhibition, *BPLTC 111*: *Food Control,* multimedia artists use digital technologies as a form of both presentation and mimicry to critique the technologically driven industrial food system. This exhibition was the last of a three-parte series on biopolitics, and the objective of the show was to explore how research and technological advancements influence the ways in which food is distributed and made accessible within contemporary regimes—a familiar topic to many food studies scholars. The curators deem this "the control over food," namely, the non-sharing of food resources by nations or industries versus community-driven responses. The three installations cover practices of domestic food knowledge, concerns about seed patents, and systems of seed

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control. The works are derived from multiple contexts in different parts of the world—from just across the Canadian border to farther south, around Mexico City, and even to the far reaches of Norway. The orientation of the media used comprises a potent method for examining technology's role in food control, while demonstrating how technology can also critique power. This way, the exhibition shows how technology itself is not the problem, but rather the ways in which technology is used to hold power over our food.

Starting close to home, and situated within the increasingly popular North American movements to revive domestic food practices, *OS Fermentation* plays with technology to bring novel aesthetics to fermentation processes. The artists Leila Nadir and Cary Peppermint describe their work as an "interspecies" installation, intended to create a "spiritual revival of human-microbial collaborations."

The installation is made up of a large wooden food table with several different flavours of kombucha in mason jars for sampling. Select jars contain probes that capture data (pH levels, dissolved oxygen, and color values) as they change during the fermentation process. The data is gathered using a circuit board and then processed by a computer using custom software. This generates and prints out what the artists refer to as "microbiotic selfies."

The installation also includes a chalkboard with a foodie manifesto and an old television set with one of the artists on the screen, demonstrating how to prepare fermented foods. Next to the installation, the artists include a projected stream of Internet videos that show people reacting to different fermented foods. The gallery audience is invited to sample the kombucha, blending the new media aesthetic and a sensory engagement with taste.

Figure 1: The *OS Fermentation* installation and manifesto (*photo: Pamela Tudge*)

Milpa Polimera tackles contemporary concerns around corn. The artists Arcangelo Constantini and Marcela Armas, from Mexico City, focus their installation on Mexico's ancient staple, recognizing its vitality and diversity, and the ways in which it is a central part of the Mexican identity.

Arcangelo was at the *Food Control* opening, and during my conversation with him, he elaborated on the significance of the piece, mentioning the current biopolitical conflicts in Mexico, particularly in the rural regions where he has spent an increasing amount of time. There, traditional corn varieties and new industrial varieties are key actors in heated legal standoffs.

Within the installation, the artists' tractor robot runs in never-ending circles—reflecting the economic system within a closed "self-justifying" loop. The robot is constructed as two opposing systems: a 3D printer built from an open-source design, and the "seeds" the printer makes from patented, genetically modified corn plastic. The seeds are then planted in the soil of the installation. Similar to genetically modified terminator seeds, the "sterile" plastic seeds become an artefact of our contemporary industrial food system.

The installation situates technology as an instrument of corporate control, particularly through legal, technologically driven mechanisms like seed patents, which give special favour to private companies and place control of our food in the hands of private corporations that are supported by capitalist-driven governments.

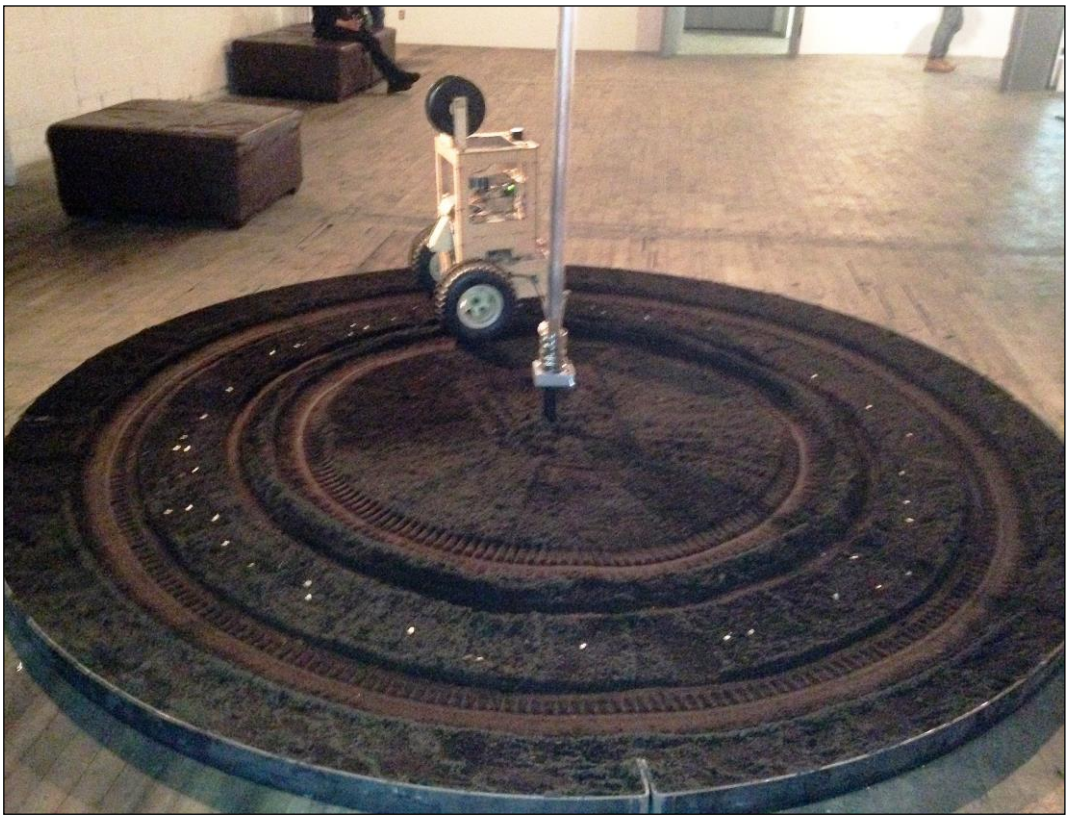

Figure 2: *Milpa Polimera's* crop circle (*photo: Pamela Tudge*)

The third installation, *Evigaturen,* by the Norwegian artist Signe Liden, comprises a film and a sculptural "recording" machine. The subject of the work is the Global Seed Vault, which houses seeds from around the world as a form of nation-state food security, protecting coveted seeds against potential disaster. The machine is a sculptural representation of an actual recording device, made by the artist and sent by ship to the seed vault, located between the North Pole and Norway.

The original device (now located at the vault) records the sound of a given seed's activity, and is based on ancient principles of recording. Sounds are inscribed on a rotating record by what the artist describes as "a needle fixed to a Tibetan ball."

The installation's intent seems to be to demystify the seed vault, a high-security, multiple-chamber facility that is located exceptionally far from society. The film projected on the wall next to the sculptures depicts the recording machine's journey to the vault on a shipping vessel. The diverse group of passengers that accompanies the machine are shown going about daily activities, with shots of everyday life on board the industrial vessel—an isolating experience of travel to the frigid far north.

Figure 3: Artifacts from the sound recordings of *Evigaturen* (*photo: Pamela Tudge*)

Together, the sculptures and the film do not convey one particular message, and instead serve as a reminder of the vault's existence—an important statement in and of itself—and that the security of the global food system lies beyond corporate food labs, deeply embedded within our geopolitical structures.

For food scholars, this exhibition asks how aesthetic representation can affect our understanding of food control and biopolitics; what happens when multimedia art produces a kind of activist artefact?

The digital microbiotic selfies of *OS Fermentation* demonstrate the distinct liveliness of the fermentation process—an important reflection of diversity at the micro-scale—and the established resistance to industrial-scale homogenization of our food. *Milpa Polimera*'s power is in the ways by which the artist confronts technology as an instrument for control and manipulation, acutely illustrating how robots, 3D printers, and corn plastics can be used to erase Indigenous peoples' rights to their own food supply. Finally, the *Evigaturen* sculptures reveal that the most isolated parts of our food system remain connected to the greater whole, interacted with and capable of generating new activity, however subtle.

All three installations work at once to demystify the instruments of food control—security, patents, processing—while delivering a multi-sensory jolt to our understandings of food control.

Pamela Tudge is a PhD student in Concordia University's Individualized Program, an adjunct professor in the faculty of Fine Arts, and an active member of Hexagram. She teaches We Are What We Eat, *a food and culture course that examines contemporary food practices through research-creation–style projects. Her research employs material- and media-based practices to explore understandings of domestic food waste and space. Over the last 10 years, she has done work in the areas of food studies, environmental science, new media, and social movements.*

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Book Review

The gluten lie: And other myths about what you eat

Alan Levinovitz

Regan Arts, 2015: 263 pages

Review by Jennifer Brady (Queen's University)

What nutrition buzzword is on the tip of more tongues than gluten? Today's popular obsession with gluten, or gluten avoidance more precisely, has spurred a bevy of gluten-free products and cookbooks with recipes for items such as cauliflower pizza crust. The Canadian market for gluten free products grew 26% between 2008 and 2012, and the sales for gluten-free foods in Canada has been estimated at upwards of $460 million despite the relatively low numbers of Canadians who require gluten free foods due to a diagnosis of Celiac disease (1%) or non-celiac gluten sensitivity (6%) (Agriculture and Agri-foods Canada, 2014). The most common reasons to avoid gluten given by those without a medical need to do so include "digestive health," "nutritional concerns," and "weight loss" (Agriculture and Agri-foods Canada, 2014). Calling Alan Levinovitz's book, *The Gluten Lie: And Other Myths About What You Eat* timely is an understatement. Levinovitz calls attention to the seemingly gratuitous explosion in gluten free eating with the basic premise that diet fads tell you more about a particular socio-cultural context from which fads arise, than what is supported by science. Rather than using science to debunk the gluten free trend, he looks to history and contends that underlying the longstanding succession of food and diet fads is a widely shared, common sense belief in "the myth of paradise past" (pg. 13). The myth of paradise past, like a religious parable, is a heuristic device and describes a fairy-tale time and place where humans ate only natural, unadulterated foods that

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were supplied by nature and thus perfectly tailored to their dietary needs. According to this myth, the "one true diet" of days gone by meant that past populations were untouched by the moral (i.e. greed, lust, sinful pleasure) and physical (i.e. obesity, chronic disease) ills brought by modernity and the consequent modern diet and food system. By exposing the underlying myth, Levinovitz shows how modern diet fads have little to do with any actual health benefits or scientific evidence to support them. Yet, Levinovitz's goal is not to reveal a truer "Truth" of healthy eating, but to alleviate our modern anxieties about food and to restore pleasure and good judgment to eating and a more broadly defined idea of health.

Levinovitz is a religious studies scholar specializing in classical Chinese thought at James Madison University in Harrisonburg, Virginia. Given his background in religious studies, Levinovitz offers a unique perspective on the almost tyrannical clutch of contemporary of food fads on modern foodways. Of course, there is a considerable pool of scholarly literature on religion and food, however, there are far fewer sources that deal with modern food culture from this perspective, and even fewer that discuss the specific diet fads that Levinovitz addresses.

In addition to the introduction, the first section of his book comprises six chapters. The first chapter outlines the premise of the book with an illustrative example of ancient China's Daoist monks that eschewed all grain-based foods as a rejection of mainstream Chinese culture. The following four chapters elucidate four modern diet fads that eliminate an ingredient or food component from one's diet—gluten, fat, sugar, and salt—and show how each is inspired by the myth of paradise past. In the sixth chapter, "Nutrition Myth Detox," he takes on other common dietary myths and offers a nutrition "technique" that he calls "eating in the fourth dimension" (pg. 161). This technique, or perhaps diet by another name, urges people to focus on and increase the time devoted exclusively to preparing and eating meals—an unacknowledged luxury for many people—rather than foods to eat or avoid. The other rule of eating in the fourth dimension is to "eliminate all reading about nutrition or health" (pg. 162, emphasis in original). While I am skeptical of the unquestioned privilege that comes with having the time and money to eat in the fourth dimension, relegating food and nutrition articles to the "sometimes" category is diet advice I can get behind. In the second section of *The Gluten Lie*, Levinovitz outlines "The UNpacked Diet" which is described as "a scientifically proven revolution in healthy eating" that reveals the evils of food packaging for our health (pg. 165). However, the UNpacked Diet is quickly unpacked and revealed as a tongue-in-cheek play on the typical diet fad. Levinovitz goes on to indicate, with a series of annotations on the text, how the UNpacked diet makes inflated claims that are rooted in the same widely held "common sense" myths as the other diet fads he dissects, but few scientifically founded realities.

Overall, the book is entertaining, well researched, and accomplishes its main goal: to expose the social and cultural foundation of diet fads and disavow any ideas about their scientific origin. The book is well suited to an intellectual generalist audience, particularly those interested in critical perspectives of food, nutrition, and dieting. Given Levinovitz's perspective as a religious studies scholar, the book may also be of interest to scholars interested in sociological

perspectives of food and foodways, nutrition, and dieting. However, academic readers may want to look to additional sources for a more theoretically grounded and critical take on this topic.

While Levinovitz offers interesting insights into the socio-cultural origin of diet fads, he does not consider how diet fads serve as a purposeful means of social stratification. Moreover, he does not discuss the wider context within which these food fads have arisen. For example, he doesn't answer questions such as, "Why have these food fads arisen primarily in Western societies?"; "How does "the myth of paradise past" compare cross-culturally?"; or "What does it mean that these food fads all focus on eliminating an item from the diet?". However, the most significant critique of this book rests with how uncritically Levinovitz treats the ills of anti-obesity panic and the "obesity epidemic," which several scholars before him have shown to be rooted—like diet fads—in moralistic rather than scientific evidence (Biltekoff, 2013; Campos, 2004; Saguy, 2014). He challenges single ingredient diet fads, but does not question the practice of dieting, particularly for weight loss. Rather he affirms eating less and moving more to lose weight (i.e. a diet) as a worthwhile, and attainable, goal. That said, *The Gluten Lie* is an enjoyable book that—like any treatise—has its failings and can illuminate only slice of a complex phenomenon.

Jennifer Brady is a PhD Candidate in the School of Kinesiology and Health Studies at Queen's University. Her dissertation work takes a socio-historical perspective to explore the professionalization of dietetics as a feminized profession and its evolving relationships with home economics, food, science, and feminism. More broadly her work spans critical feminist perspectives of gender, food, nutrition, fatness, and the body.

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Book Review

Growing local: Case studies on local food supply chains

Robert P. King, Michael S. Hand, and Miguel I. Gomez (Eds.)
University of Nebraska Press, 2015: 384 pages

Review by Ryan Phillips (Ryerson University)

The local food movement in North America has grown significantly during the last decade, yet there still remains relatively little empirical research on the subject. Fortunately, however, the recent work *Growing Local: Case Studies on Local Food Supply Chains* edited by Robert King, Michael Hand, and Miguel Gomez helps to further develop an understanding of this increasingly popular food system. *Growing Local* examined five case studies in order to gain a better overall understanding of local food supply chains—apples in Syracuse, New York; blueberries in Portland, Oregon; spring mix in Sacramento, California; beef in the Twin Cities, Minnesota; and milk in Washington, DC. These region and product pairings examined mainstream, direct, and intermediated markets to address the impact of local food supply chains on social, economic, environmental, and health dynamics of the examined communities. Each case study employed both semi-structured interviews with members of the supply chains and contextual data gathered from secondary and third-party sources—such as per capita income of communities and size of local markets.

A recurring theme throughout the study is the conveyance and perception of the "local" attribute of foods within these supply chains. The study used a flexible working definition of local food to refer to foods produced or processed within the study state or within the study state and surrounding states (p. 15). In order to be considered local, the food also needed to convey information—through its label or marketing strategies—regarding where it was produced.

Similarly, the study's working definition of local supply chains involved "the set of trading partner relationships and transactions that delivers a local food product and conveys information to consumers about where, by whom, and how the product was produced" (p. 16). However, the authors also acknowledged the fact that local food remains a fickle concept

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amongst both academics and the general public. For example, the study of New York apples highlights both the romanticized and subjective nature of local foods: though many larger or intermediated supply chains met the criteria for being considered local, consumers typically perceived food delivered through direct sales methods—such as farmers markets—to be more local. While assessing blueberries in Oregon, the authors also raised the question of whether consumers' perceptions of a food's localness decreased depending on how many times the product changes hands (p. 116). The final chapters concluded that, as an attribute, the localness of a food tended to depend mostly on how the product was produced and processed rather than where, though both elements were still important in these supply chains (p. 268).

Regarding supply chain performance of local food systems, the study draws several conclusions. The social and economic benefits of local foods are highlighted, noting that direct marketing strategies—specifically, farmers markets—while relatively small-scale, provide highly transparent information relating to food production and processing for consumers. These local food systems also tend to create sustainable prosperity. For example, financial benefits remain largely within the local communities, and many individuals within these supply chains are also actively engaged in their respective communities through promotion of healthy eating at hospitals, investing in local farmers' entrepreneurial skills, and similar endeavors (p. 295). In terms of environmental sustainability, the performance results are mixed. As with consumer perceptions of what constitutes local food, the environmental sustainability of local foods depends more on how the product is produced rather than its geographic proximity (p. 301). For example, many of the local apple producers in New York use pesticides similar or identical to those used in more mainstream supply chains. This emphasis on production methods is still significant even when factoring in environmental impacts of transportation, as the authors note that transportation in any food supply chain accounts for only a small portion of energy use—approximately 3.5% (p. 300). As such, the study's assessment of the potential for local foods to improve environmentally sustainable agriculture concludes with a host of possibilities for future research.

Overall, *Growing Local* provides an exceptional indepth examination of the current state of local food supply chains in the United States. The book offers both a better understanding of a growing trend in North American food systems as well as an identification of areas in which further research and critical analysis are needed. For example, though admittedly limited in scope, the study results imply greater levels of local food transparency in direct and intermediated systems, as opposed to the typically more veiled geography and production of mainstream market supply chains. Most noticeably, the study also acknowledges that its focus on metropolitan areas means that the structure and performance of similar food supply chains in rural communities are still not being addressed, and thus further investigation is needed. Indeed, *Growing Local* is an excellent read for anyone interested in the economic elements of contemporary local food studies.

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Book Review

Changing the food game: Market transformation strategies for sustainable agriculture

Lucas Simons

Greenleaf Publishing, 2014: 268 pages

Review by Adam Sneyd (University of Guelph)

Experts in the area of new agricultural standards, codes, and certifications tend to hold strong perspectives on the reforms that they believe will transform unsustainable conventional farming practices. However, these important practitioner points of view infrequently make a big splash in global conversations and debates on the future of agriculture. The perspectives of philanthropists, celebrities, and generalists have of late received more attention than those of insider-type individuals that address this issue from their own particular technical or analytical perspective. And it is this gap that certification, farmer organization, and agricultural development consultant Lucas Simons seeks to fill in his new and highly accessible book *Changing the Food Game*. Scholars should take note of this creative approach to rendering the transformation of agriculture more meaningful and exciting to a broader audience. Conference panels and journal articles on standards, codes, and certifications have absolutely pushed knowledge generation on this topic in new and needed directions. But these academic exercises are fundamentally exclusive, and can be devoid of substantive social impact.

Simons marches into this void trumpeting his own experience as a Director with UTZ Certified, a smaller global sustainability standard for coffee, tea, and cocoa. From the get-go,

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Simons' experience with this particular initiative informs his presentation of the history of market transformation through certification. In recounting "where it all began" in his first chapter, for example, Simons seemingly downplays the rise of parallel approaches before and concurrent to the emergence of UTZ, including organic standards and fair trade certifications. But the limits of his presentation on the specifics of this history do not ultimately undermine the effectiveness of his book. The "value added" to the literature from this instance of experience-informed expert writing—so to speak—is that it offers an original market-oriented approach to conceptualizing change in complex agricultural systems.

Simons painstakingly and in simple language shows his readers how they can grasp these complex systems through thinking "in loops" about the forces and factors that reinforce unsustainable practices. To do so he offers an incredible array of useful figures and charts that offer food for thought to laypeople and practitioners alike. He then employs his systems thinking and rigorously documents what he terms the "phases" of market transformation that can be gleaned from his experience with internationally traded agricultural products. And to reinforce his perspective, he offers a must-see graphical appendix that imparts the evidence he has for considering market transformation in coffee, cocoa, and palm oil to have followed similar trajectories. To summarize briefly, Simons views change to stem from an initial "awareness-raising phase" where NGOs blow the whistle on bad practices, and projects are launched to ameliorate the underlying problems that have been called out. He then delineates a second "first-mover phase" where entrepreneurs seek to address the underlying problem more durably than the initial responses. Subsequently, Simons argues that a critical mass or "institutionalization phase" is reached when the new sustainability standards set by the first-movers become more broadly established. He terms the fourth and final phase "leveling the playing field", and argues that in this period civil society groups, standards bodies, corporations, and governments are called upon to work together to implement and align sustainability practices that have entered the mainstream.

While much of Simons' work on this front is convincing and I highly recommend this book, from a political economy perspective, I do have some concerns. Simons underscores the importance of politics during his "awareness-raising" phase, but does not do enough to bring out the politics and political implications associated with the subsequent phases he identifies. As such, in my view, he overplays the market-driven nature of agricultural transformation. Simons also offers his readers a limited lens through which to view the power that standards, codes, and certifications can wield relative to each other, and also to the markets they set out to govern. In cotton, for example, it is clear that different approaches to agricultural transformation can yield very different sustainability results. Lowest common denominator-type approaches tend to command more power than others that have a demonstrated potential to foster meaningful change. Despite this significant limitation, the value added remains. But so too does the question of impact. In seeking to speak to a mass audience, Simons should enable more people to comprehend the importance of standards, codes, and certifications than otherwise would take an interest. Whether this type of intervention will move these issues higher up the global agenda for

food and agriculture policy and decision-makers nonetheless remains to be seen. I for one hope that his effort represents the first of many "insider" accounts that help people to better understand what is being done to their food by the experts seeking to make agriculture more sustainable.

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Book Review

Fat activism: A radical social movement

Charlotte Cooper
HammerOn Press, 2016: 296 pages

Review by Cassandra Kuyvenhoven (Queen's University)

In *Fat Activism*, Cooper responds to mainstream and scholarly writings on fat activism that she claims create negative assumptions or "proxies" of fat people. These constructed proxies serve to efface, reduce, and oversimplify the voices and the lived experiences of fat activists and fat activism. Through proxies, fat people are further marginalized and estranged from writings about what it means to be fat and what it means to be an activist. In this context, fat is a descriptive word that rejects medicalized terminology and encompasses non-normative embodiments of adipose tissue. Fat is not a bad word: it is powerful, political, and not without controversy.

One of Cooper's major frustrations is that jargon-filled academic research only expresses a limited, monolithic scope of fat activism; therefore, she goes to great lengths to make sure that fat people are not othered or tokenized in her text. Cooper employs inclusive language—fat people are referred to as "us", not "them". We are fat, we are present, and we are not complicit in totalitarian obesity discourses that define fat as an issue that requires solutions or interventions. Through this first-person language, Cooper creates an arena for a more dynamic, comprehensive discourse that makes space for all types of experiences and voices in fat activist communities.

Cooper's six-part book describes the origins of fat activism proxies—like body positivity, fat acceptance, eating disorders, and health—and starts to "undo" and complicate these falsehoods. Here Cooper critiques some of the staples of fat activist literature—including Marilyn Wann's oft-cited *Fat!So?*—as contributing to overly reductive accounts of fat activism that are not representative of the expansive, messy social phenomenon as a whole. The second part of the book broadly explores what fat activism is and how to "do" it. Cooper outlines that fat activism is done through: political process activism and collective influence; community building; cultural work through the act of "making things" (p. 68); micro activism/identity

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politics; and other forms of ambiguous activism that don't fit easily into any activism category. Cooper relies on her sample of interviews (n=31) to support her arguments and provide real-world examples of fat activism being enacted both publically and privately. The third part of the text explores Cooper's genealogy of fat activism to demonstrate its—and her—embeddedness in "historical, geographical, political, and philosophical spaces" (p. 96). This autoethnography-cum-historiography explores how Cooper and her interviewees encountered fat activism generally and fat feminism more specifically. Although Cooper's perspectives are peppered throughout the text, this is the most personal chapter and it explores how Cooper conceptualizes her fat and her activism.

The bulk of the text is contained within these three first parts, which makes the following half of the book seem slightly less developed in comparison; nevertheless, I would argue that the final chapters are extremely significant contributions to contemporary theoretical debates about fat activism. The fourth part of the text uses archival evidence and her interviews to trace how fat feminism "traveled" (p. 130) or journeyed through personal networks, organizations, publications, and communities in the United States—and how this travelling reverberates to the rest of the world. In the fifth part, Cooper goes on to describe the racial, ability, and class inequalities within fat activism and how certain individuals and philosophies have gained privilege and access while others remain marginalized. This is an important acknowledgement of other less visible forms of fat activism, which is further developed in the remaining pages. The final part culminates in a discussion about how to revive what Cooper interprets as a stagnating social movement. Using Judith Butler's (2006) definition of queer as "anti-identity" (p. 192), Cooper contends that queering the fat activism movement would allow fat activism to embrace non-conformity, reject dominant culture, and promote creative ways of thinking about what fat activism is and has the potential to be. Festivals, gangs (like the Chubsters), DIY timelines, zines, and events (like The Fattylympics) are all offered as ways to queer fat activism and demonstrate its fluidity, possibility, and inclusivity. The text does not have a distinct conclusion, which can make the text feel like it comes to an abrupt end. However, Cooper's final thoughts—in a section interestingly entitled "Who Knows?"—are a call to action, urging individuals to customize their own brand of fat activism and to continue to innovate and participate in the movement in their own creative ways.

Some might take issue with Cooper's argument that fat scholars must be a certain size to be considered fat activists. While Cooper states in the introductory pages that she opposes a universal measure of fat (p. 1), she later argues that fat activist literature is "dominated by normatively-sized researchers" (p. 31) who are necessarily outside of the fat activist community. This could be seen to be problematic because although Cooper is advocating for broader definitions of fat activism, she is simultaneously placing size limitations on who should be or who is able to be considered a fat activist. However, Cooper goes on to clarify that she is not being exclusionary—she is simply wary of "normatively-embodied" (p. 106) feminist scholars claiming ownership of fat experiences. These feminist scholars are often over-represented in the literature whereas fat activists are under-represented or ignored in scholarly discourse. Cooper

seeks to rectify this imbalance by emphasizing the lived experiences and narratives of fat people communicated by fat people and not through the lens of an outsider. Cooper is not advocating for exclusionary politics, rather she is making space for fat activists to re-occupy the fat discourse.

Cassandra Kuyvenhoven is a doctoral candidate in the School of Environmental Studies at Queen's University, studying the environmental impacts of waste transportation. Her Master's research in Sociology focused on fat activism and feminist re-readings of biomedical obesity discourse.

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Book Review

The art of natural cheesemaking

David Asher

Chelsea Green Publishing, 2015, 298 pages

Review by Christopher Yap (Coventry University, UK)

Cheese wasn't designed. Cheeses were, and are, products of specific geographical, economic, ecological, and cultural circumstances. And so in the history of cheesemaking we see the history of agriculture, of trade, of places, and people. The countless cheeses—each made with only milk, rennet, bacterial cultures, and salt—reflect the diversity of the contexts in which they were first produced. Cheese therefore offers a rich, "living" connection to the past and, as Asher's *The Art of Natural Cheesemaking* implies, a lens for engaging with the political, ethical and ecological issues that affect our futures.

This book is positioned in the context of a broader "fermentation revival" in North America, most visible in craft beer, sourdough bread, sauerkraut, and artisan cheese. Whilst the revival is much celebrated, and does reflect a growing public interest in the provenance and production of food, it has had little material impact on the organisation of global agriculture or agribusiness-dominated food systems. Artisan cheesemaking remains a fringe activity. And it is here, at the fringe of the fringe, that we find dedicated natural cheesemakers like David Asher.

The transformation from milk into cheese is straightforward, based on natural processes: raw milk sours; curds form in calves' stomachs; yeasts, moulds and bacteria grow wherever conditions are right. Natural cheesemaking means working with, rather than against nature. In practice this also means avoiding industrially produced ingredients, where possible, sourcing

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high quality raw milk, where possible, and cultivating bacteria, yeasts and moulds at home to replace the arbitrarily selected and lab-grown bacterial cultures—known as DVI (Direct Vat Inoculation) starters—that have come to dominate large- and small-scale cheese industries around the world.

In many ways this is an important and ambitious book, far more than a collection of recipes. In his impassioned Manifesto, Asher declares that, "if eating is a political act, then cheesemaking is even more so" (10). Asher wants to challenge and transform the way that we think about cheese and food more generally, and to recognise that the integrity of food (and the quality of cheese) is inseparable from every aspect of land use, agricultural practice and policy, and animal husbandry.

Through the practice of cheesemaking Asher links decisions taken in the farmstead kitchen to the macro politics of globalisation and industrialisation. Every cheese inoculated with *penicilium roqueforti*—blue cheese mould—grown on rye bread at home, represents an alternative to the prevailing, reductive conceptions of food, farming and cheesemaking. The structural politics of global agribusiness are painted with broad strokes, but in the tactile descriptions of the cheesemaking process, the political and ethical considerations come sharply into focus; which materials—plastic, wood, or metal—should we use to cut the curd, and why?

Asher, a small-scale farmer himself, wrote this book on the island of Lasqueti off the west coast of British Colombia, where improvisation is part of the culture and, "DIY is a way of life" (xi). Similarly, when it comes to natural cheesemaking at home, Asher eschews both the "traditional" and "industrial" approaches to sourcing tools and materials; "a sushi mat, placed atop a steel cooling rack balanced on a casserole dish" (63) makes a perfectly workable draining rack for the natural cheesemaker who is more interested in cultivating a *penicillium geotrichum* rind than uniform cheeses.

Cheese has few ingredients, and so it is only right that this book takes a thorough and critical look at each in turn. Asher outlines in some detail the distinction between animal rennet—the collection of enzymes, of which the most important is chymosin, derived from the fourth stomach of an unweaned calf that cause milk to coagulate—and artificial alternatives. Not only does he explain the distinctions between animal and non-animal rennet and their effects on the cheese, he also explains why these distinctions matter. In doing so, Asher unpacks misconceptions about "vegetarian" cheese and explains why fermentation-produced-chymosin, a widely used animal rennet substitute, does not require a GM label, despite the use of genetic modification (GM) technology in its production. Instructions on how to prepare rennet from a freshly-slaughtered calf are further evidence of Asher's thorough and committed approach.

Asher's use of kefir grains as a universal starter culture is resourceful, innovative, and consistent with his broader principles. Kefir grains are symbiotic communities of bacteria and yeasts that form discrete solid structures that, if "fed" milk and cared for (much like a sour dough starter), will propagate indefinitely. Kefir grains have naturally diverse and resilient ecologies. They contain both mesophilic and thermophilic bacteria that are necessary to sour milk for making any cheese, from the softest white chèvre to the grandest Alpine wheels. Asher notes

with humility and evident delight that his kefir grains, and all others, are direct descendants of the kefir brewed in yurts by Central Asian nomads thousands of years ago.

Two-thirds of *The Art of Natural Cheesemaking* is dedicated to recipes, which become increasingly more complex, from fresh cheeses, via softs such as the intriguing "Mason Jar Marcellin", blues, and washed-rinds, to hard cheeses. Recipes are written with little science but with a keen critical eye. It is a beautifully presented book, written in a bold, engaging style that inspires tactile cheesemaking—where touching, handling, testing and tasting become the primary modes of learning. Discussion of biochemistry is approachable and intuitive, and there is palpable sense of wonder and excitement when Asher writes about the diverse ecologies of raw milk and its possibilities for raw cheeses.

Asher is rightly outraged by the manner in which large-scale, industrial producers have come to dominate the dairy industry in North America. Small-scale, family farms and small-holders are seemingly never far from precariousness. Consequently a large number of small-scale farmers in North America and Europe have diversified into artisan cheesemaking and other activities in order to spread risk, add value to raw products, and ultimately remain viable.

Many of these producers make raw milk cheeses by hand for local markets. However, many will also often use industrially-produced, single strain DVI starters, firstly because they allow farmers to avoid time-consuming regulatory processes that accompany the use of homemade starter cultures and rennet (if they are legal at all—Asher is not permitted to sell his cheeses), and secondly because DVIs give a consistency of product which many small, family businesses rely upon. And so it feels that while Asher is taking worthy aim at corporations and companies looking to control and homogenise the dairy industry, many conscientious small-scale cheesemakers are caught in the crossfire.

In the context of natural cheesemaking it is also important to mention PDOs (Protected Designation of Origin status), which define many of the world's most celebrated cheeses such as Brie de Meaux, West Country Cheddar, and Parmagiano Reggiano. For many reasons PDOs should be understood as political constructions—referring to invented traditions—that reflect contemporary conceptions of hygiene and accountability amongst other things, rather than the historical reality of dynamic, adaptive, and heterogeneous processes, which are actually far closer to David Asher's contemporary cheesemaking practices. And so an argument can be made that Asher limits himself by attempting to emulate recognised cheeses with established recipes, rather than allowing his own conditions, ingredients, and climate to determine his cheesemaking outcomes. In a way, the most authentic form of cheesemaking is without recipes at all.

The phrase "counter cultures" is useful for summarising the contribution of this book. David Asher rejects the prevailing, industrial cheesemaking culture. He also rejects the arbitrarily selected and lab-grown bacterial cultures used by large- and small-scale cheesemakers around the world. Through quiet acts of food sovereignty, growing his own "counter-top cultures", Asher makes natural cheesemaking relevant, important, and possible.

Overall this is a valuable and engaging book for would-be cheesemakers that, used correctly, should soon be mottled with brine and whey, and its pages marked by salted fingertips.

David Asher wants you to reclaim some power in your food systems, starting with homemade cheese, butter and yoghurt. Farming, cheesemaking, and eating are all political acts, and we can take comfort in the fact that, by looking critically at every day practices, we can spot myriad small opportunities to contribute towards more socially just and sustainable food systems.

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Community Review Article

A little regulatory pluralism with your counter-hegemonic advocacy? Blending analytical frames to construct joined-up food policy in Canada

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Contents

Introduction

Canadian food policy is deficient in many ways. First, there is neither national joined-up food policy, nor much supporting food policy architecture at the provincial and municipal levels[1] (for details, see MacRae, 2011). Second, there is no roadmap for creating such policy changes. And third, we don't have an analytical approach to food policy change in Canada that would help us address deficiencies one and two.

This paper addresses the third theme. In our experience, a significant limitation of existing Canadian food policy work is the lack of frame blending to bring more explanatory power to both current phenomena and a more desirable process of change. Consequently, we attempt to unify disparate literatures pertinent to the food policy change process in Canada to create a more cohesive approach, using four case studies of analyses already conducted to demonstrate the frame blending process.

Calling it new theory may be too grand; perhaps it qualifies more as midrange theory (Geels, 2011 citing Merton, 1968) or tactical frameworks (Stackowiak, 2013). Merton (1968:39) defined midrange theory as "theories that lie between the minor but necessary working hypotheses that evolve in abundance during day-to-day research and the all-inclusive systematic efforts to develop a unified theory that will explain all the observed uniformities of social behavior, social organization and social change". Geels (2007) elaborates by characterizing mid range theory as: (a) about concrete phenomena (such as socio-technical transitions), (b) linking theory and empirical research, (c) specifying relationships between concepts into analytical models, d) using empirical research to identify patterns. These seem more characteristic of what we're proposing than grand theory.

By joined-up food policy, we mean the coherent and comprehensive policy environment[2] that links food system function and behaviour to the higher order goals of health promotion and environmental sustainability. A joined-up policy unites activities across all pertinent domains, scales, actors and jurisdictions. It employs a wide range of tools and governance structures to deliver these goals, including sub-policies, legislation, regulations, regulatory protocols and directives, programs, educational mechanisms, taxes or tax incentives, and changes to the loci of decision making.

There are change frameworks in use, but many are much narrower or broader than what helps us understand food policy change. Our focus is on policy transition which is a bit different from other broad sustainability, innovation and technology transition frameworks (see Markard et al. 2012). Smith (2007) cites Berkhout (2002:1-4): "A policy goal for sustainable production and consumption *systems* imply a different kind of innovative activity to that traditionally

[1] In certain ways, municipal food policy architecture is the most advanced, see MacRae and Donahue (2013).
[2] What Dombkins (2014) might refer to as the meta system that governs a set of subsystems

associated with a single product or new business practice". Other change frameworks attempt to explain causality for major social events. Geels (2011) addresses some of the strengths and weaknesses of other grand change theories in the context of defending his preferred approach, the Multi-level Perspective (MLP). But there are elements of change frameworks that have utility for food policy change and I attempt to weave them into my construction.

But our approach isn't about causality[3], but rather "what could be" or normative approaches, changing the system in a direction of our intention. Some other food policy transition literature touches on this, but is typically more rooted in causality than our approach (for observations on the state of the field, see Hinrichs, 2014). What kind of food policy contributes to wider food system change to create sustainability and health? How can it be implemented? What is the transition path for a co-ordinated well-planned non-reactive construction of a joined-up food policy? The normative approach is about using our understanding of "what is" to help us drive "what could be". Compared to causal theories that typically focus on socio-cultural and economic causal forces, the normative dimension means paying more attention to the role of the state and CSOs, because direction is required from such actors (Elzen et al., 2011).

The complexity of food policy change

Food policy change is complex for policy makers, because (MacRae, 2011):

- "it's about the intersections between a number of policy systems that are historically divided intellectually, constitutionally and departmentally
- governments have no obvious institutional place from which to work, and the instruments of multi-departmental policy making are in their infancy; there is no department of food
- supporting new approaches means extensively confronting many existing and entrenched policy frameworks and traditions
- it means having to address the externalized costs of conventional food, health, economic and social systems, and these externalized costs are only partially understood and quantified
- it means understanding food as more than a marketable commodity, which creates problems for certain departments

[3] Geels (2011:34): "Frameworks such as the MLP are not 'truth machines' that automatically produce the right answers once the analyst has entered the data. Instead they are 'heuristic devices' that guide the analyst's attention to relevant questions and problems. Their appropriate application requires both substantive knowledge of the empirical domain and theoretical sensitivity (and interpretive creativity) that help the analyst 'see' interesting patterns and mechanisms."

- it challenges many of the central tenets of current agricultural and economic development, and health care system that concentrates on cures rather than prevention."

Such complexity has significant implications for food policy, with most phenomena falling into what Dombkins (2014:35) calls emergent policy change for which,

> Emergent strategies are required to:
> - bring together multiple other component polices and systems (that may not be under the direct control of the policyowner[4]) to deliver a higher order policy outcome using a system-of-systems.
> - accommodate change in the component policies and systems—policies that display emergent characteristics need shell designs that can accommodate a plug-and-play approach, with component policies being replaced and new policies being added.
> - use stewardship, as opposed to direct control.

Such approaches, according to Dompkins are associated with policy that governs a system of systems, and food systems qualify for such categorization because of the vast numbers of products, transactions, locations, actors and governance elements. In such cases, the policy environment must set higher order goals that guide component actors, policies and systems of the larger system of systems.

Critical to both complexity and a normative approach is having a transition framework, and a food policy transition framework of choice is Hill and MacRae (1995)'s Efficiency – Substitution – Redesign. This framework serves as both a guide to action, and an indicator of progress. In this framework, Stage 1 strategies involve making minor changes to existing practices to help create an environment somewhat more conducive to the desired change. The changes would generally fit within current policy making activities, and would be the fastest to implement. Second stage strategies focus on the replacement of one practice, characteristic or process by another, or the development of a parallel practice or process in opposition to one identified as inadequate. Finally, third stage strategies are based fully on the principles of ecologies, particularly agroecology, organizational ecology, political ecology and social ecology, and are fully elaborated to address complexity (the earlier stages benefit from an understanding of complexity, but are not in themselves necessarily complex to execute). They take longer to

[4] As discussed below, given constitutional divisions, there are multiple food policy owners, suggesting the need for a collaborative approach. A critical question is from where is the central animation of the joined up food policy design and execution (on the challenges see Dombkins, 2014)? Differing from Dombkins, this work is about both the system of systems and the component systems as the components are currently deeply flawed.

implement and demand fundamental changes in the use of human and physical resources. This final, or redesign stage, is unlikely to be achieved, however, until the first two stages have been attempted. Ideally, strategies should be selected from the first two stages for their ability to inform analysts about redesign (the most underdeveloped stage at this point) and to contribute toward a smooth evolution to the redesign stage.

A presumption of this framework, then, is that policy change in the Canadian food system is largely evolutionary. It is more a long-term reformist approach, with dominant structures progressively adapting to policy pressures, ultimately leading to a profound redesign of the food system. The approach fits broadly under the rubric of long-term policy design within transition management (Voss et al., 2009). The redesign stage, thus, is visionary but presumes progressive layers of transition leading to its realization. Regarding the relationship of this framework to some of the grand theories of policy change (for an overview see Stackowiak, 2013), in recent times, there have rarely been grand leaps in food policy in response to major exogenous shocks, so Punctuated Equilibrium theory is not likely in play, though the ESR framework foresees such possibilities in the shift from the Substitution to Redesign stages, once the terrain has been prepared for such major changes. The Advocacy coalition framework is sometimes applicable when progressive politicians / parties are in power, but this is more likely to happen now at the municipal level in Canada (see MacRae and Donahue, 2013) and occasionally provincially. Power elite and Regime theory is usually not highly applicable because food system decision making is so diffused domestically (though international food regime theory is pertinent as discussed below). A related issue, also addressed below, is that the Canadian food movement is often insufficiently mature to play effectively the roles associated with these theories of change. Kingdon's agenda setting theory (Kingdon, 1995) is, however, pertinent at each stage of the ESR framework as will be presented later.

In our experience, each normative food policy study requires the blending of analytical frames to bring explanatory power to the phenomena under review (see case studies below for elaboration). We are building here on the blending frames approach of others. Elzen et al. (2011) use the Multi-level Perspective (MLP), social movement theory and Kingdon (1995) to examine shifts in animal welfare policy in the Netherlands. Stachowiak (2013), not specific to food policy change, identifies 5 global change theories with 5 others that focus more on strategy and tactics, suggesting that advocates must blend them together to achieve their purposes. Barndt (2008) assessed numerous frames and filters useful for uncovering the international supply chain story of the tomato. Many Masters students at York's Faculty of Environmental Studies have similarly attempted to blend frames to explore certain dimensions of Canadian food policy and programme change (as examples, see Bradley and MacRae, 2009; Louden and MacRae, 2010, Patel and MacRae, 2013; Campbell and MacRae, 2013; McCallum et al., 2014).

The context for food policy change in Canada

Canada, like most industrial countries, has never had a coherent and integrated national food policy (for more details on why, see MacRae, 2011). Since the colonial period, agricultural production has been the primary driver of food policy and agricultural policy in the 19th century dealt primarily with Canada's obligations to Britain (Skogstad, 1987). This commenced a long period in which agriculture was subservient to other interests, primarily immigration, national security, and economic development (Fowke, 1946:272; Britnell & Fowke, 1946) .
Much of the basic policy infrastructure for the food system was put in place in the late 19th and early 20th century, derived from powers of criminal law (e.g., the *Food and Drugs Act,* early versions of what became the *Pest Control Products Act*) or trade and commerce (e.g., *Canadian Agricultural Products Act* and *Meat Inspection Act*).[5] Hedley (2006) argues that this approach has its roots in the thinking of John Stuart Mill (1965:800):

> ... governments ought to confine themselves to affording protection against force and fraud: that these two things apart, people should be free agents, able to take care of themselves and that so long as a person practices no violence or deception to the injury of others in person or property, legislatures and governments are in no way called upon to concern themselves about him.

This thinking, modified later on the food production side by Keynesian economic influences, has remained central on the food consumption side (Hedley, 2006), meaning that governments are very reluctant to intervene in food consumption issues, a major impediment to creating a joined up food policy. Perhaps the only time this reluctance was overcome was during the 2nd World War, when food consumption was influenced to support the war effort with a large number of interventionist instruments (Britnell & Fowke, 1962; Moseby, 2014).

The first food safety regulations were part of an 1875 amendment to the *Inland Revenue Act*, prohibiting the adulteration of food, drink and drugs. At the time, reducing levels of adulteration and fraud was a significant focus of food system interventions (McKinley, 1980). The link to food commerce has always complicated efforts to protect and ensure public health (for recent case examples, see MacRae & Alden, 2002).

On the food production and distribution side, the historical and still dominant model is founded on positivist - reductionist traditions[6] in Western agricultural science and economics.

[5] This section is adapted from MacRae and Alden (2002).
[6] These scientific traditions "are based on several unprovable assumptions: (1) that the essential characteristics of any phenomenon are captured best by analyzing its parts: (2) that there is a sharp distinction between facts and values; (3) that only those facts that are measurable are indeed facts; and (4) that these measurable facts are more valid than other types of information or knowledge" (Dahlberg, 1993:294).

These fields have a long tradition of dividing scientific and economic problems into discrete, manageable pieces, essentially eliminating environmental context from the inquiry. The rise of industrial capitalism created a demand for tools for profit making, and scientists and industrialists collaborated to create them (Albury & Schwartz, 1982; Levins & Lewontin, 1985). Many scientists, thus, were confining their interests to subjects of value to industrial capital. With the successful development of sophisticated tools and technologies, it was easier to believe that nature could be endlessly managed and manipulated without negative consequences (Leiss, 1972). Commitment to positivist-reductionist approaches was reinforced by the apparent effectiveness of the tools and technologies within a narrow frame of interpretation. Powerful tools, however, invariably have multiple harmful side effects, although their significance is often not understood until significant damage has been done.

These philosophical roots remain central to most agricultural science, economics and policy today and many current problems are the secondary and tertiary negative effects of the productivist model. For example, most research devoted to reducing manure pollution is necessary because of earlier research and extension efforts that minimized the role of manure in creating soil fertility in favour of synthetic fertilizers. The view of manure as a waste to be managed is now viewed as an error.

The constitutional divisions, first imposed by the British North America Act of 1867, are major impediments to a unified approach. Generally, the federal government has a lead policy role on matters related to cross-border commerce, farm financial safety nets, agricultural research and technology development, food and phytosanitary safety, food standards, packaging and labelling, and nutritional health (narrowly defined). The provinces (and sometimes territories) also have supporting roles in these areas, and take the lead on matters related to commerce and food safety within their boundary, land use and agricultural land protection, property taxation, many areas of environmental protection, public health and agricultural extension. The two jurisdictions often negotiate on program design, with the federal government offering guidelines or rules to establish national coherence and equivalency, but the provinces often taking a lead role in program delivery. The traditional funding formula in agriculture is 60% federal / 40% provincial and territorial. Municipal involvement depends largely on the location of the municipality, and its province. Urban municipalities generally have little direct role in food production and supply but because many have responsibilities for public health delivery (under the authority of the province), do engage in food inspection activities and nutritional health promotion. Urban municipalities also affect food distribution through zoning policies that may determine food store and food company locations and their associated economic activity. Some actively promote urban agriculture. Rural municipalities can have more direct impacts on agriculture through zoning, and property and education tax decisions. Municipalities often have a lead responsibility for household and commercial waste management, typically under rules promulgated by provinces. Since a large part of the waste stream is food and food packaging,

their policies and programs (or lack thereof) may indirectly impact food system behaviour. Given such complex divisions of authority, the system can only work well with high levels of collaboration across jurisdictions, a situation often lacking as the different levels compete for authority or attempt to avoid responsibility for problematic files.

Similar jurisdictional complications exist in related policy areas with significant food system implications, such as transportation, social policy and health care. Stated Koc et al. (2008:126): "Over the years, the federal government has expanded its jurisdiction over income tax, unemployment insurance, social welfare programs, and a national health care plan. Yet, the administration of many food-related levers, such as education, labor, health care, agriculture, and social legislation, have remained under provincial jurisdiction. Municipal governments were left to fund and govern their own public health (including food inspection and health education), water supply, urban and regional planning, housing, recreation, transportation, and social services—all of which were directly or indirectly relevant to food system sustainability." As it relates to food security, they stated (Koc et al., 2008:131): "One underlying reason for federal inactivity on issues such as those identified in the Action Plan for Food Security is the broad and uncoordinated distribution of agriculture and food-related responsibilities among various branches of government. At the federal level, issues dealing with food production and processing are under the jurisdiction of Agriculture and Agri-Food Canada, the Canadian Food Inspection Agency, Fisheries and Oceans Canada, and Industry Canada. Environment Canada often has a lead on sustainability files. When trade and foreign aid are involved, Foreign Affairs and International Trade Canada, Export Development Canada, and the Canadian International Development Agency are added to the mix. A similar complexity appears for nutrition-related matters, involving Health Canada, the Public Health Agency of Canada, and the Canadian Food Inspection Agency. Yet hunger, poverty, local development, and equity concerns are handled by Human Resources and Social Development, Indian and Northern Affairs, Status of Women Canada, plus a variety of regional agencies. Since many of these portfolios are also the domain of provincial or municipal governments, the political system makes action on complex issues such as food security unmanageable. As well, it is very difficult for CSOs to stay abreast of developments at all these levels." Koc et al. (2008) referenced the somewhat paradoxical jurisdictional shifts that have occurred. On the one hand, there has been the dispersion of some federal function to global institutions (see below). On the other, decentralizing tendencies, often associated with perceived budgetary pressures, has shifted many federal responsibilities to provincial or municipal governments. In this bifurcated environment, the ability of national/federal governments to create joined up food policy is hampered.

Since at least the 1930s, Canadian legislation and inter-governmental agreements have normally been broad and enabling, with the details provided partly in the regulations, but especially in directives, protocols, programmes, and codes of practice promulgated under the statute or agreement. This approach is designed, in part, to facilitate adjustments without the

need for new parliamentary debate. Major amendments to legislation occur infrequently (e.g., the Pest Control Products Act has typically only been significantly updated every 25-30 years, see MacRae et al., 2012), and require many years of discussion and consultation. However, the regulatory details are changed more frequently. This allows legislatures and Cabinets to provide broad direction and oversight, and for civil servants to implement the details, consistent with the political direction. To be effective, the civil service must be skilled, properly resourced and accountable to the political process. This contrasts with other jurisdictions, for example the European Union, which has a more prescriptive approach whereby legislation sets out more specific performance requirements and is less reliant on instruments created by the civil service to give force to the legislation.

The flexibility of the Canadian approach can be compromised by its reliance on instruments and staffing strategies affected by budgetary pressures, competing authority between agencies, efforts to prevent political oversight of bureaucratic activity, bureaucratic difficulties sorting through conflicting policy directives (for example, facilitating commerce versus minimizing risk), the overall competence of the civil service, and the related reliance on third party actors for execution, particularly the private sector (for pertinent food safety examples, see MacRae & Alden, 2002). This legislative approach also makes it more difficult for legislatures to determine and ensure programmatic, regulatory and administrative compliance with legislation and policy directives. If non-government parliamentarians (carrying out their traditional oversight functions) have the capacity and skills to identify non-congruence between an Act and its regulatory instruments, there are no practical measures at hand to correct the discrepancies[7]. This explains, in part, why the Auditor General, Parliamentary Budget Officer and Access to Information processes have become so pertinent.

Of course, Canada is also a significant player in the international food arena and its policy architecture affects and is affected by global forces. The shift from primarily locally to globally distributed foods is a longstanding process, dating back some 500 years in the European world (Coleman, 2008). Canada, as a settler colony, was part of the first food regime, 1870-1930, and as industrial production took hold post-1930 with its associated surplus for trade and food aid, also was a significant player (albeit not a leader) in the second food regime[8] (McMichael, 2009). Specific sets of implicit and explicit rules guided these regimes and cemented Canada's trajectory in an agro-industrial model (the reductionist-positivist tradition) with significant resources devoted to penetrating global markets and significant political influence to large food corporations. During the second regime, many jurisdictions moved away from policies of domestic self-reliance in basic foods to greater international movement of

[7] In theory, judicial review would be an option if the regulation or policy is truly at odds with the legislation. The larger problem is that Canadian legislation rarely imposes statutory duties that are judicially enforceable, reflected in the common legislative language of "mays" instead of "shalls".
[8] There may also be a third food regime emerging, see McMichael (2009).

goods, and the dispersion of some nation state functions to supra-national formations such as the IMF, the World Bank, or multilateral or bilateral trade agreements (Koc et al., 2008). Agriculture was originally part of the trade rules established under the General Agreement on Tariffs and Trade (GATT) but there were so many loopholes that it was effectively exempt until the 1994 GATT Uruguay round agreement resulted in its full inclusion (what became the Agreement on Agriculture when the World Trade Organization [WTO] was founded in 1995).

The role of the trade deals in food globalization is open to some debate (Bonnanno & Constance, 2008), but at a minimum they have helped cement the shift away from the local and regional supply chains that provided basic foodstuffs up until the 1960s (Friedmann & McMichael, 1989; Hendrickson & Heffernan, 2002). Canada's participation in the World Trade Organization Agreement on Agriculture (WTO AoA) represented a shift from a national state-assistance approach to agricultural development - the idea that agriculture had some exceptional characteristics requiring unique state interventions - to partial adoption of a neo-liberal paradigm (Skogstad, 2008). However, Skogstad (2008) cautions against viewing this as a paradigm change, arguing that it represents a shift, but not a rejection, of the state assistance model. And she argues that such shifts have not exclusively been a product of the trade arrangements, influenced as well by changes in policy communities, state budgets and other domestic factors.

The trade agreements have reduced instrument choice, though not consistently and coherently (Guthman, 2008; Hatanaka et al., 2012). In Canada, many pre-AoA programmes directly associated with increased production intensity have been altered in part because of trade agreements (Skogstad, 2008). These include income stabilization schemes that were deemed production distorting, such as the Western Grain Stabilization Program and provincial meat stabilization programmes, regional production supports and development schemes, and subsidies to specific production sectors that were deemed underdeveloped or prime export opportunities (Wiebe & Wipf, 2011). Associated with these programme changes have been overall reductions in support to producers (as defined by the Producer Support Equivalent) since the mid-80s (AAFC, 2013). These instruments were part of the state assistance paradigm that somewhat protected agriculture from market forces and indirectly supported local food systems. Some of these instruments, if they still existed, would now be restricted by the WTO AoA. Instead, the favoured tools for the federal and provincial governments are tripartite-funded business risk management programmes, sectoral contribution agreements and information programmes to drive market development. The contribution agreements are not typically framed around very specific programme parameters, but rather serve multiple purposes and are therefore more acceptable to AoA signatories. As measured by two indices, Canadian policies are only very modestly trade-distorting compared to most other industrialized countries (Anderson & Croser, 2010), again reflecting the reconstruction of state interventions to comply with trade agreements.

The other significant international arena with relevance for food policy making in Canada is the UN system and the right to food. Rideout et al. (2007) stated: "The right to food was first

recognised as a fundamental human right in 1948. Since then, Canada and many other OECD nations have signed several national and international agreements promoting the right to food ..... However, food security has not been achieved in Canada despite strong economic growth in the past decade and a comprehensive Charter of Rights and Freedoms, with which food security could be embedded into a domestic human rights framework." Despite these international commitments, they concluded that little progress has been made on incorporating food rights into Canadian charters, legislation, programming and practice. In many ways, they argued, the situation has deteriorated as Canada's social safety net has slowly unravelled, and the gap between the design of Canada's income support programmes and its international commitments has widened. Following a mission to Canada in 2012, the UN Special Rapporteur on Right to Food (2012) concurred, lamenting the many deficiencies in Canada's right to food implementation, particularly for aboriginal peoples and other vulnerable groups. The federal response was entirely dismissive, claiming there were no serious food insecurity issues in Canada. However, central to food rights thinking is the notion of progressive realization, with the state a key enabler, but not the sole determinant, of that realization.

A moment may have arrived to advance food policy change. McMichael (2009) and Friedmann (2009) speak to the transitions between food regimes, believing that the industrial world is experiencing one right now, a period in which the dominant processes and institutions are vulnerable. In Canada, all the main federal parties have produced statements or reports on a national food strategy/policy, the Canadian Federation of Agriculture (2011) developed a vision statement on the future of food. The People's Food Policy Project (2011) of Food Secure Canada conducted a community-based process to develop a comprehensive national food policy. The Canadian Agri-Food Policy Institute (2011) and the Conference Board of Canada released numerous food reports, ultimately resulting in a food strategy (Bloom, 2014). Though partial initiatives, lacking in breadth or depth or both, they present the possibility of significant food policy change in ways that have not been seen for at least 30 years (MacRae, 2011).

The place of the food movement

As mentioned above, a normative approach requires drivers of change and, in the Canadian food system, these normative drivers take different forms:

- Farm and commodity groups and agri-food firms, the traditional policy community (Skogstad, 2012), advocate for specific or broad changes to a wide range of processes that affect their membership. These are typically about removing specific obstacles or

constructing new types of supports. Interventions can also be defensive, fending off changes that government or social movement groups propose.

- Social movements apply pressures that the state feels compelled to respond to, usually articulated around specific food system practices or products (e.g., factory farming, genetically engineered organisms, specific pesticides to be banned). Most food movement actors are oriented to this approach. Elzen et al. (2011) call this normative contestation from outsiders.
- Strange bed-fellow alliances are constructed that typically involve social movement actors and the traditional agricultural/food processing policy community. Such alliances are increasingly part of the Canadian food system landscape because so many organizations across the advocacy spectrum are dismayed with the course of food policy (for a case study on pesticides, see MacRae et al., 2012).
- Civil service actors no longer necessarily follow directives from political bodies. The demise of the traditional relationship between elected and unelected officials (see Savoie, 2003) means that the civil service can overtly or covertly push for change, somewhat independent of political directives. Canada's first Agricultural Policy Framework in 2002 was largely a civil service construction, as is the basic architecture of genetically engineered food regulation (see Abergel & Barrett, 2002).
- State mediated advisory processes created to manage policy change, in part a response to Treasury Board directives in the early 2000s to open up participation beyond traditional policy networks
- Researchers and health professionals trigger reviews of existing regulation, typically regarding suitable levels of exposure to, or consumption of, substances.

Sandwell (2012) believes that although the term "food movement" has increasing currency, it remains contentious. Some social movement literature suggests that the "food movement" is more a series of related or networked movements working semi-independently. Alliances have formed across thematic areas as: 1) collectively negotiated frameworks of analysis and action; 2) diverse and growing networks; or 3) shared repertoires of action. Sandwell (2012) states: "The Food Movement has gradually emerged out of a variety of different critiques that are now seen as related and interpenetrating. Though total consensus has definitely not been achieved and may never emerge, the last decade has seen an increasing number of actors and groups espousing frameworks that view many different problems as importantly interrelated."

Koc et al. (2008) provide a history of the Canadian food movement's activities within several of the above modes, focusing on normative contestation and participation in state mediated advisory processes. Through both successes and failures, it is clear from this history

that the much of the food movement still operates on punctuated equilibrium, coalition framework and power elite approaches (see Stackowiak, 2013). Following Kingdon's (1995) typology, the tendency is to focus on the formal policy windows, rather than the unpredictable and less formal ones. Extrapolating from Day (2005), other food movement actors practice activities beyond the traditional conception of counter-hegemony. A broader understanding of social resistance is required, one that includes the construction of alternative approaches that lie outside the dominant system and work with the state on evolutionary change (also known as regulatory pluralism). Unfortunately, practicing regulatory pluralism remains an ongoing challenge (Koc et al., 2008; MacRae & Abergel, 2012). Thus, a wide range of activities are undertaken, but food organizations display varying degrees of skill and resourcing, depending on the approach taken to policy change.

The food movement in Canada is not as evolved as the environmental movement. In reviewing 40 years of ENGO advocacy, Winfield (2012) cautions that:

- Institutionalization of an agenda doesn't necessarily mean a paradigm shift has taken place (in other words, critical reflections on what appear to be successes are always required);
- Sophisticated strategic analysis and execution is required to ensure the most effective interventions for the long term at the least cost to civil society;
- Creative and entrepreneurial approaches are especially required when the dominant paradigm is deeply embedded in institutions. Hill (1994:372-3) elaborates on two pertinent elements of this embeddedness: that the standard of proof for many bureaucratic organizations is the criminal law standard of beyond a reasonable doubt, and that often deeply embedded commitments to ministerial regulation are the norm. Consequently, the prospects of a state directed policy community or regulatory pluralism are limited;
- Constructing alliances representing broad sectors of support for policy change has been very important.

Frames for understanding the food system

Given the complexity of the food system, a variety of analytical frames have been used to understand its operations, impacts (both positive and negative) and social relations. The following have been helpful for this analysis:

Table 1: Useful food system frames of analysis

Frame	Useful for understanding.....	Key citations
Marxian analysis: the metabolic rift and class dynamics in agriculture	The failure of the capitalist model of agriculture	Foster (1999), Boltanski and Chiapello (2005), Albritton (2009), Berstein (2010)
Oppositional politics and Transnational Peasant Movements	Transnational peasant movements and counter-hegemonic CSO activity	Gramscii (1992), Desmarais (2007)
Conventional economic analysis	How mainstream agriculture thinks about the food system and firm decisions	Brinkman (1987)
Criticism of conventional trade theory	How trade agreements do not actually deliver the benefits promised	Rosset (2006)
Agroecology	How to design production and distribution systems around ecological principles	Altieri (1990), Gliessman (1990)
Foodshed analysis	How to advance food system localization by examining supply chain dynamics and capacities within a region	Kloppenburg et al. (1996)
Supply chain analysis	Food moves spatially and from actor to actor	Bloom and Hinrichs (2011)
Alternative food networks	The initiatives that lie largely outside the dominant system	Renting et al. (2003)
Culture and communications	Our personal and collective understandings of food are influenced by cultural forces	Counihan and Van Esterik (2013)
Planning	The urban planning systems intersects with the food system	APA (2007)
Aboriginal ways of knowing	Aboriginal peoples understand the relationship between food, land and life	Turner et al. (2000)
Feminist theory	A critical ecofeminist approach images a completely different type of food system	Sachs (1992)
Anti-racism/food justice	The dominant food system favours particular ethno-racial and economically priviledged groups	Allen (2008)
Right to food	Food is a human right and has been recognized as such in many international covenants and agreements and its realization can be progressively enabled by states	Rideout et al. (2007)

In most food policy research, the use of multiple frames shines additional light on the relationship between food system function and the kinds of changes required to move the system in a more desirable direction. The policy interventions, then, must be coherent with the concepts and practices that appear to support the appropriate change process. This will be elaborated in the cases below.

General policy change frameworks to draw on:

Many policy change frameworks are of possible value when searching for both positive and normative explanatory power[9]. Most of these frameworks are not entirely unique, sharing dimensions with others, a characteristic that can be helpful when blending frames. The scope, scale and theoretical aspects of these frames is also variable, some having larger structural dimensions, other focused more on instrumental conditions, some highly normative, others more causal in orientation. Some, then, qualify as grand theory, others more mid-range (see discussion above). A brief description of potentially pertinent ones is provided in this section and then their application is developed in the cases that follow. Note that because we are focussed on policy change frameworks that contribute to our understanding of sustainable food policy change, we do not include all frameworks in this section.

1. The Pace of Change: Incrementalism vs. Punctuated Equilibrium/policy windows

The public policy literature generally assumes that significant changes in policy direction are difficult to achieve. Governance structures may be deeply embedded regarding the actors inside and outside of the state to include in policy-making processes and the underlying assumptions or policy paradigms on which they act (Skogstad, 2008). Dominant institutional and societal actors who feel that their interests are well served by the existing arrangements are likely to resist the entry of new actors or new ideas into the policy process. As a result, it is generally accepted that most policy change will be incremental in nature. Major changes in direction are not the norm, rather policy is likely to be modified slowly over time in response to evident weaknesses, problems and opportunities. Sitek (2010) cites Streeck and Thelen (2005) on the five mechanisms of incremental institutional change: "layering, which involves partial renegotiations of some elements of a given set of institutions by attaching new elements to existing ones; conversion, where institutions are redirected to new purposes; displacement, where the salience of a subordinate element of an institution rises; drift, where institutional change results from neglect of maintenance; and, finally, exhaustion, which involves the gradual withering away of a given institution over time." A derivation of this approach is directed incrementalism (Grunwald, 2000), somewhat more consistent with the ESR transition framework.

The notion of power elites (Domhoff, 1990; Mills, 2000) suggests that incremental administrative change can be advanced by working directly with authority to make decisions or the power to influence other decision makers. Power elites are not always officials - they may be non-state actors - but to be successful, you have to have one or more key allies in a position of

[9] Note that there is much theoretical debate about the merits of some of these frames, arguments we do not address here.

formal or informal power. Stone (1989)'s concept of regime theory suggests that policy change happens through the influence of a small body of powerful individuals on decision makers. These powerful individuals typically live beyond electoral processes, so are less visible to the public. To influence policy directions, actors have to access this small body or somehow create alternate comparably powerful groups.

Other theorists have focussed on the circumstances under which major changes in policy direction can take place, with previously dominant policy and governing paradigms displaced. Such changes are generally relatively rare events, requiring specific alignments of societal, institutional and circumstantial forces for them to occur. Epitomized by Kingdon's (1984) concept of 'policy windows', where "the separate streams come together at certain critical times, solutions become joined to problems, and both of them are joined to favourable political forces. This coupling is most likely when policy windows (opportunities for pushing pet proposals or conceptions of problems) are open. (. . .) Windows are opened either by the appearance of compelling problems or by happenings in the political stream. (. . .) Significant movement is much more likely if problems, policy proposals, and politics are all coupled into a package". Kingdon (1984: 210) suggests that (policy) windows may be missed if proposals and solutions "have not already gone through the long gestation process before the window opens". Although Kingdon argued that the streams are quite separate, others believe that policy entrepreneurs work across all the streams to generate change (Elzen et al., 2011).

The implication of this approach is that public policy change may work more along the lines of punctuated equilibrium in evolutionary theory, characterized by long periods of relative stability, but potential for significant policy shifts in relatively short periods of time when with new actors get involved, or when an issue receives greater media scrutiny and public attention (Baumgartner and Jones, 1993).

2. Drivers/Causes of Change (Interplays of Ideas; Institutions; Interests; Physical, Technological, Environmental and Economic factors)

The mainstream political science and public policy literature initially placed a very strong focus on institutional structures - formal power structures and rules, such as federalism, and the features of different systems of government (e.g. cabinet parliamentary vs. separation of powers) – to understand the public policy process. More societally-oriented, pluralist approaches began to emerge in the 1950s, highlighting the importance of forces and factors outside of the state as key drivers of policy change. These approaches open possibilities of analysis through such lenses of gender, race, and class in terms of understanding the reasons for specific policy outcomes. Recent mainstream approaches to policy change have tended to emphasize the interplay between the two streams of institutional structures and actors and societal factors.

Policy networks and communities approaches, for example, operate on the premise that policy-making unfolds through decentralized and more or less regularized and coordinated interactions between state and societal actors. Approaches that focus on formal and macro-level decision-making bodies like parliament, cabinet, and first-ministers conferences may therefore ignore the realities of the policy process and obscure the imperatives for effective and legitimate governance (Skogstad, 2008a).

Sabatier and Jenkins-Smith's (1993) concept of coalition frameworks theorizes that policy change happens through coordinated activity among a range of actors with the same core beliefs and purposes, dependent upon a sympathetic government/administration and skilled advocates with a strongly shared goal. In their view it is often the case that an existing administration has to be removed to create change opportunities or there are significant external events that change public opinion and socio-economic conditions.

Known as the new institutionalism and departing from some incrementalist dimensions, "Historical institutionalists started to emphasize that institutional paths contain ambiguities, multiple layers, and competing logics, which can be used by policy actors as vehicles for experimentation, conversion, recombination, and transformation." (Sitek, 2010). Neo-institutionalism highlights the potential for relations between specific state and societal actors to become so deeply embedded that they become 'institutionalized' and difficult to disrupt or displace.

Drawing on economic approaches to understanding behaviour, Public choice/rational choice approaches emphasize the role of self-interest on the part of institutions, non-state actors and individuals in explaining their actions (Sproul-Jones, 1996). Although offering explanatory and potentially predictive potential in some cases, public choice approaches have been criticized for underplaying the complexity and range of variables potentially involved in public policy decision-making and assuming that self-interested rationality will explain behaviour in all cases.

Some recent work has re-emphasized the importance of formal Institutional arrangements. Donald Savoie's (1999) Governing from the Centre thesis is that it is unlikely complex, multi-dimensional, and multi-departmental policy issues (such as food) will undergo substantive parliamentary discussion, given the roadblocks at all levels[10]. Such policy is unlikely to be a priority of the Prime Minister's Office (PMO). Cabinet participation in policy making has been eroded, so that agriculture or health ministers are not likely to bring forward significant food and agriculture legislation without PMO approval. Committee capacity to review is compromised by the complexity of most bills and by the limited resources of the committee and individual parliamentarians. MP-bureaucracy relations are generally strained because many elected officials believe public servants now have too much influence over policy development.

[10] Note that more limited and highly politically charged issues, such as the Canadian Wheat Board, are still occasionally part of parliamentary debate.

More specifically, some parliamentarians are dismissed by their limited capacity to provide oversight on legislative implementation, especially pertinent in an era of implementation and enforcement-related cutbacks. Some parts of the civil service are now viewed as political liabilities because of their failure to respond to politicized issues in ways that remove pressure from elected officials. In turn, public servants question the competence of many elected officials, viewing them as adversaries, given civil service loyalty to the government of the day (Savoie, 2003). Such realities have significant implications for policy change, which we elaborate on in the pesticides case study below and in MacRae et al. (2012).

Recent judicial decisions in Canada regarding the meaning of Aboriginal and Treaty Rights, particularly the meaning of aboriginal 'title' (*Tsilhoqot'in Nation vs. British Columbia*, 2014) and the establishment of the Crown's 'duty to consult' with aboriginal people where their rights or interests may be affected (*Haida Nation v. British Columbia (Minister of Forests)*, [2004] 3 S.C.R. 511), have also placed a renewed focus on the importance of institutional arrangements. In particular, they emphasized how changes to the formal rules of governance can fundamentally alter the power positions of institutional and societal actors. The Supreme Court's *Spraytech vs. Hudson* (2001*)* decision has had a similar impact regarding the scope of legislative action potentially available to municipal governments in Canada.

Ideas as variables/Discourse Analysis

The dominant approaches to the study of public policy in Canada have tended to emphasize the roles of government agencies and structures, and non-state actors and forces in understanding public policy debates and the resulting policy decisions (Doern, 1996; Howlett et al., 2010). While the roles of underlying ideas, norms and assumptions in policy formulation are generally acknowledged in the study of public policy (Atkinson, 1993:1-3; Macdonald, 2007), the manner by which they shape and bound policy discourses has generally received much less attention. In comparison, the policy literature addressing the themes of state and non-state interests and actors and their interactions through policy networks and communities and institutions is more robust (Finlayson, 2004). Ideas, norms and assumptions have tended to be dealt with through the proxies of the state and non-state actors whose actions they inform, rather than being treated as variables in their own right.

Discourse analysis places a renewed emphasis on understanding the assumptions, judgements and contentions that are the basis for analysis, agreements and disagreements among the actors involved in policy debates (Dryzek, 2013:9-10; Winfield and Dolter, 2014).

The importance of economic/physical/environmental/technological variables and factors

Similarly, the mainstream public policy and policy change literature tends to underplay (or completely ignore) the importance of the physical dimensions of public policy problems, and the economic context within which policy decisions are made. Some of the literature dealing with environmental, natural resources and energy policy cases does place more emphasis on these factors (Hessing et al., 2005: Chapter 2). For Doern and Toner (1985), the fundamental geographic realities of the distribution of Canada's fossil fuel resources between eastern and western Canada are an essential factor in understanding the evolution and fate of the federal government's 1980 National Energy Program. Courchene and Telmer (1998) and Winfield (2012a) highlight the centrality of structural changes to Ontario's economy in understanding the types of issues that have come to the forefront in province's economic, energy and environmental policies. The increasing physical manifestations of the consequences of climate change may compel policy responses, at least in terms of adaptation, and may weaken the position of opponents of action the reduce greenhouse gas emissions. The emergence of 'fracking' technology over the past decade in North America and its impact on the energy sector highlights the potential for technological developments to fundamentally alter power relations among different actors and require new policy agendas to respond to their consequences.

Efforts to draw streams together

Both earlier (Doern and Toner 1985) and more recent work (Winfield, 2012a) have sought to re-integrate the four major categories of variables involved in public policy change: interests; institutional frameworks; ideas/norms/discourses; and physical and economic context. Behind these approaches is an implicit recognition that no single variable or even combination of variables is likely to be determinative in all cases. Rather, the explanations for major policy changes are typically more contingent on the particular combination of circumstances.

Within this context, institutional frameworks and physical and economic context provide 'landscape' conditions within which public policy decisions emerge. These variables are relatively fixed. However, if they are altered in some way, they can be 'game changers' that compel major shifts in policy. As noted earlier, recent judicial decisions regarding the meaning of aboriginal and treaty rights provisions of the Canadian constitution, or the scope of municipal legislative authority, provide examples of such events. The restructuring of economies in eastern Canada away from manufacturing and resource processing and towards service and knowledge based activities provides another. Societal forces and ideational norms are likely to be more fluid, and therefore more likely factors in driving policy change.

3. Perspectives from Complexity Thinking: Path Dependence and Transitions

Path dependence (or lock-in) – originally developed from the economic history literature, Wilsford (1994: 252) argues that "A path dependent sequence of political changes is one that is tied to previous decisions and existing institutions. In path dependency, structural forces dominate, therefore policy movement is most likely to be incremental. Strong conjunctural forces will likely be required to move policy further away from the existing path onto a new trajectory. It is the combination of path-dependent limits along with occasional windows of exceptional opportunity, or conjunctures, that determine the ways small or big that a political system responds to policy imperatives."

Multi-level Perspective on socio-technical regime change (Geels, 2011: 25) – to some degree building on regime theory and path dependence, Geels believes that "sustainability transitions are necessarily about interactions between technology, policy/power/politics, economics/business/markets, and culture/discourse/public opinion. Researchers therefore need theoretical approaches that address, firstly, the multi-dimensional nature of sustainability transitions, and, secondly, the dynamics of structural change. With regard to structural change the problem is that many existing (unsustainable) systems are stabilized through various lock-in mechanisms, such as scale economies, sunk investments in machines, infrastructures and competencies. Also institutional commitments, shared beliefs and discourses, power relations, and political lobbying by incumbents stabilize existing systems .... Additionally, consumer lifestyles and preferences may have become adjusted to existing technical systems. These lock-in mechanisms create path dependence and make it difficult to dislodge existing systems. So, the core analytical puzzle is to understand how environmental innovations emerge and how these can replace, transform or reconfigure existing systems." A multilevel perspective links three scales of analysis. 'Socio-technical niches' form the network involving new innovations at a local scale. The 'socio-technological regime' is made up of the social network of infrastructures, regulations, markets, and established technical knowledge. The 'socio-technical landscape' is the exogenous environment of air quality, resource prices, lifestyles, and political, cultural and economic structures. The regimes are nested within and structured by landscapes, and niches are nested within and structured by regimes.

Transition management (Voss et al., 2009:284) – Part of a reflexive governance approach, " .... policy design in transition management comprises five main components: (1) Establishing a transition arena, (2) developing a vision, (3) pathway development through back-casting techniques, (4) experimenting with pathway options and (5) monitoring, evaluation and revisions..... For each of these components of the transition management process, a variety of societal actors are supposed to participate and provide knowledge, competences, material resources and viewpoints."

Summarizing, the socio-technological transitions and public policy literatures touch on many common themes regarding processes and barriers to major shifts in policy direction, but have largely emerged in parallel to one another, with connections between the two only beginning to be explored recently (Hoffman, 2013; Meadowcroft, 2009; Voß & Bornemann, 2011) .

4. Comparative studies

Comparative studies are worth brief mention. They cut across the categories presented here because they contrast how policy changes (and explanatory frameworks) are applied in different environments. They have been used to understand agricultural policy differences in Canadian provinces (cf. Montpetit and Coleman, 1999), international health policy change conjunctures (Wilsford, 1994) or the possibilities of paradigmatic agricultural policy change across international borders (cf. Skogstad, 2012). They help us understand what might be more effectively executed in Canada. The comparative method has been set out by numerous authors, including Collier (1993).

5. Regimes/Governance Models

In this category fall frameworks that place more emphasis on governance than the change process per se, but they have significant implications for the kinds of strategies proposed to drive change. They can be combined with the policy change frames discussed in the earlier subsections to bring more explanation to observed phenomena or proposed solutions. We include a quick review of them here and show their utility in the case study section.

Regulatory pluralism – a governance regime that embraces a wide range of coordinated and integrated instruments (including some traditional command and control regulations), well matched to the desired effect and implemented by an equally wide range of state and non-state actors (see, for example, Gunningham, 2005).

Instrument choice (Eliadis et al., 2005) – This is a tools approach because in the current context, tools are typically the focus of advocacy work. Governments cannot undertake grand new deals on the food system for a variety of reasons. Advocacy groups are framing their advocacy based on their favourite instruments. This is more of a public management approach that recognizes that the political layer often does not deal with the details. In advocacy terms, instruments are not without political values so one uses them to drive philosophical change. Fed-prov-territorial debates are usually about instruments and their design. For many issues, the political framework has already been set, so instrument design becomes the only negotiating

space. Instrument choice fits within the efficiency/substitution stages of Hill and MacRae's (1995) ESR transition framework.

Loci of decision making – Hill (1994) uses the term choice of organizational arrangement (mode) for regulation and examines the interest politics-mode paradigm – decision style framework to explore the tensions that can be inherent in a mode choice. Modes are carefully crafted mixes of structure, resources (staffing and budgets) and organizational processes. In her view, the choice of mode for regulation is "a fluid, evolutionary, policy community-wide activity in crafting machinery for delivering regulatory policies and programmes out of various possible structures, budgets and staffing levels and administrative processes." (p.362). In other words, mode choices are often made by a single decision maker.

Cases:

Four cases elaborate on the process of blending historical realities, transition concepts, and food system and policy change frameworks. As stated earlier, this is not a search for the best frameworks, but rather the cases hopefully elucidate a reflexive approach to identifying the blends of frames that will offer the most explanatory power to the issues being explored. The cases were selected from work we've been involved in with collaborators, across different jurisdictions (international, national, provincial, municipal) and thematic areas (trade, pesticide regulation, health care, and joined up food policy). They involve different analytical frameworks, scopes and scales, and a range of actor realities. Some are interpretations of what has happened, others of what could be.

The general policy change literature suggests a set of guiding questions for food policy analysts. We focus on themes typically not well examined by social movement actors (see MacRae and Abergel, 2012), in particular, understanding the governing policy paradigms, the jurisdictions and structures of governance and loci of decision making, and the range of potentially applicable instruments. The questions are as follows:

Governing and Policy Paradigms/Regime and Landscape conditions

- How firmly embedded is the status quo? What is the role of the state in supporting the status quo or is it more deeply cultural and economic with minimal current state intervention? What is the role of ideas/discourses? To what extent are the environmental and technological contexts important to understanding the change process? Geels (2011) refers to this as regime rules: "regime rules are cognitive routines and shared beliefs, capabilities and competences, lifestyles and user practices, favourable institutional

arrangements and regulations, and legally binding contracts. Because existing regimes are characterized by lock-in, innovation occurs incrementally, with small adjustments accumulating into stable trajectories. These trajectories occur not only in technology, but also in cultural, political, scientific, market and industrial dimensions. While science, technology, politics, markets, user preferences and cultural meanings have their own dynamics, coordinated by different sub-regimes, they also interpenetrate and co-evolve with each other" Tactically, this affects how advocates might push for new policies/tools vs. modifications to existing ones and the extent to which the strategies engage the state vs. wider socio-cultural and economic phenomena.

Institutional Context/Loci of Decision-making

- What level of government has lead jurisdiction? Are other levels of government competing for leadership on the file? Or is the issue one that everyone wants to avoid?
- Where within the decision making structures are decisions being made? Particularly, is the issue a Parliamentary discussion? Or are decisions largely being made at a sub-parliamentary level (see Savoie, 1999, 2003)
- What unit of analysis is appropriate? Multiple departments across one level? Multiple departments across multiple levels, a sub-unit within one department?

Roles of Non-State Actors

- Where do the issues fit traditionally on the private sector – NGO – public sector spectrum of activity?
- How skillful and resourced are CSOs on the issue?

Potential for Niche to Regime/Landscape Transitions

- Are there niches or on-the-ground exemplars that show how practice can guide better policy, and how policy improvements can lead to more on-the-ground activity (for examples at the municipal level, see MacRae and Donahue, 2013)? What instruments are suitable?

In the cases below, these questions serve to provide a core structure for analysts and advocates. While not representing a policy advocacy strategy per se, the answers provide the basis for establishing such strategies in the future. After reviewing the responses to these core questions, we ask whether there are apparent gaps in the analysis that require the consideration of additional

factors or questions, beyond those identified in the core framework. This enables us to both complete the analysis, and consider whether there are recurring factors or variables that need to be added to the core analytical frame. In our conclusion, we elaborate on how the frame identification and blending process has worked and its challenges. Ultimately, our hope is that the cases help enhance analytical skills and produce a better roadmap for food policy change.

1. *International agreements: Trade and its effects across multiple government levels on local/sustainable food production* (MacRae, 2014)

There are numerous ways to examine trade deals, including policy analysis (Hajer, 2003), through the lens of economic and political globalization (Coleman et al., 2004), neo-colonialism (Rosset, 2007), food regime theory (Pritchard, 2009; Otero and Pechlaner, 2010), analyzing economic risks and benefits across different food chain actors (Kerr and Gaisford, 2007), and trade deals as "roll back" neoliberalism, or the use of neoliberal concepts and actions to rollback certain dimensions of social progress (Peck and Tickell, 2002). However, these frames are only partly helpful for understanding the effects of trade deals on policy to support local/sustainable food production and distribution, as there is significant debate about their effects. So MacRae (2014) sought a different way to bring explanatory power to this question.

How firmly embedded is the status quo? What is the role of the state in supporting the status quo or is it more deeply cultural and economic with minimal current state intervention? What is the role of ideas/discourses? To what extent are the environmental and technological contexts important to understanding the change process?

The ideology of free trade is deeply embedded, which explains its endurance in the face of significant evidence it is deeply flawed (see for example Daly and Cobb, 1989). Dating to the economic philosophy of David Ricardo and his 1817 treatise, The Principles of Political Economy and Taxation, his theory of comparative advantage still sits at the heart of free trade ideology, despite the reality that in the modern world, the conditions that allow trade to generate societal benefits no longer apply. The assumption that free trade brings widespread benefits is now a rarely challenged sacred cow within much of the agricultural economics and policy community. It is a significant obstacle to new thinking about the global food system.

Despite these assumptions, the mechanisms of free trade delivery are highly contradictory and often ambiguous. These mechanisms polarize discussions across nations and between food system subsectors. As discussed above, the geography and economic performance of Canadian agriculture across regions and commodities has a significant impact on policy positions, and ultimately reveals potential spaces for contestation. There is no singular position within the

agricultural sector, a situation that creates the possibility of unusual alliances against trade agreements. The Canadian state, however, is an active facilitator of trade agreements, a key part of why Canada has moved from a state assistance paradigm in agriculture to a somewhat hybrid approach where the state is still prepared to treat certain subsectors as "special" while others remain more subject in theory to the forces of free trade. As measured by two indices, Canadian policies are only very modestly trade-distorting compared to most other industrialized countries (Anderson and Croser, 2010), in part, reflecting the reconstruction of state interventions to comply with trade agreements (Skogstad, 2008).

What level of government has lead jurisdiction? Are other levels of government competing for leadership on the file? Or is the issue one that everyone wants to avoid?

The federal government has jurisdiction since trade agreements are about cross-border trade, part of the federal constitutional authority related to trade and commerce. However, informal and sometimes formal approval by the provinces is required. The internal political realities of Canada require that the federal government account for politically sensitive production and distribution issues, although the diversity of regions and agriculture means that the federal government trades different interests off against each other or offers compensation against losses incurred by the deals. In the case of the Canada – EU Comprehensive Economic and Trade Agreement (CETA), formal provincial approval is required because this agreement will take provisions more deeply into provincial jurisdiction than previous agreements. Although provinces have indicated preliminary agreement, the adoption process will likely take several years and could be fractious (Clark et al., 2013). Municipalities are also potentially affected by certain trade deal provisions, but as instruments of the provinces, do not have independent jurisdiction. Many have objected to CETA inclusion but it is not clear their provinces will take account of those objections.

Where within the decision making structures are decisions being made? Particularly, is the issue a Parliamentary discussion? Or are decisions largely being made at a sub-parliamentary level?

Although trade deals are typically ratified by legislatures, the trade agreements are usually part of high profile political agendas implemented by the national governing party. The Prime Minister's Office and the Privy Council Office are very involved. The negotiating team is usually led by high ranking officials in the Department of Foreign Affairs, Trade and Development Canada.

What unit of analysis is appropriate? Multiple departments across one level? Multiple departments across multiple levels, a sub-unit within one department?

The lead department is Foreign Affairs, Trade and Development Canada. Staff from many other departments participates in negotiating teams. Consultations happen with many provincial departments, farm and commodity organizations, agri-food firms and organizations. This is a multi-unit activity, most of it highly confidential, which narrows the policy network.

Where do the issues fit traditionally on the private sector – NGO – public sector spectrum of activity?

Many private firms are major promoters of trade arrangements to facilitate freer movement of goods and are active participants in negotiations. The public sector is ultimately responsible for the elements of the deals. NGOs are typically opposed and have only very limited access to the process.

How skillful and resourced are CSOs on the issue?

Canadian food NGOs have developed some skills and analysis regarding the wider forces that create the trade arrangements, and the potential negative implications of many of the features of the deals. NGO positions are typically counter-hegemonic. They have had limited influence on deal construction and shape, in part because of the lack of transparency and in part because they have paid only limited attention to many ambiguities in the texts and the associated implications for instrument choices.

Are there niches or on-the-ground exemplars that show how practice can guide better policy, and how policy improvements can lead to more on-the-ground activity?

Not really. This is a very divisive issue, with apparently limited middle ground. Opponents typically focus on rejecting trade deals and proponents do not support interventions that in their view favour domestic production and might trigger trade disputes that will penalize exporters. A typical response from elected officials when questioned about the failure to support local / sustainable food systems is that the trade arrangements do not permit such interventions. Such reactions are evidence of the power of the dominant norms and assumptions in the policy system.

Additional explanatory features of the frameworks

A local/sustainable food system lens is obviously central to the inquiry. For this, MacRae employed agroecological theory as central to understanding the design and execution of sustainable production and distribution (cf. Altieri, 1990; Gliessman, 1990). Although the foodshed concept (Kloppenberg et al., 1996) is also highly pertinent, especially to issues of locality, given its early state of development, existing political boundaries, and the current nature

of regional food supply chains, a more jurisdictionally oriented approach to locality is required (see Louden and MacRae, 2010).

The current opposition of local/sustainable food advocates to trade regimes in Canada focuses on the need to withdraw from them, or to substantially alter their construction, and these are clearly long term agendas (see for example, the Toronto Food Policy Council, 1994), falling within the redesign stage of Hill and MacRae's (1995) Efficiency-Substitution-Redesign transition framework. While this is an important line of reasoning, perhaps a more pressing set of questions includes: In the short to medium term, can local/sustainable food systems be supported within the current trade environment? Can efficiency-stage initiatives be proposed that still comply with trade arrangements?

The ESR framework is a generic change framework that can be applied to many transition contexts and cuts across numerous policy change frameworks, so it is worth highlighting some of the linkages. The Efficiency stage is essentially tinkering with the status quo, a very incrementalist approach. Of the 5 elements of incrementalism highlighted by Streck and Thelen (2005), conversion would bleed into stage 2, Substitution. The socio-technical regime approach highlights niches, which are a subset of the Efficiency stage. When a niche is embedded in a dominant institution (or a regime), it passes to the Substitution stage. Smith (2007) cites Hoogsma et al., that niches on their own are unlikely to transform regimes, but when the regime itself substitutes practices or processes based on its own significant learnings of niches, or when significant regime instability exists due to internal or external pressures, then institutional change is more possible[11]. At a tactical level, Kingdon (1995)'s agenda setting approach is useful for identifying efficiency and substitution stage strategies with substitution strategies normally designed as well to exploit the contradictions in institutions consistent with a New Institutionalism frame. The ESR framework typically involves a gradual shift to redesign, although it can also incorporate phenomena associated with punctuated equilibrium, but this is relatively rare in the Canadian food system.

Certainly, in this analysis, elements of Incrementalism and New Institutionalism are pertinent. Many of the proposals outlined in MacRae (2014) are designed to exploit contradictions in the trade deal language and process. The trade deals certainly represent an

[11] Alot of MacRae's work is about how to structure the linkages from niches to regime to use Smith's words. This is what the food movement is not so good at. Smith talks about the third way of translation, that niche and regime can come together to collaborate, how they might understand each other's context to come closer together. This is what some dimensions of food system change require. According to Smith (2007), there are "three different kinds of translation:

1. Translating sustainability problems, i.e. how problems in the regime inform the guiding principles creating the niche.
2. Translations that adapt lessons, i.e. reinterpreting elements of socio-technical practice in the niche and inserting them into regime settings, or modifying the niche in the light of lessons learnt about the regime.
3. Translations that alter contexts, i.e., changes that bring the regime closer to the situation that pertains in the niche, or vice versa."

entrenched Regime identified in the Geels (2007, 2011) STR approach, in part because of the norms and assumptions surrounding the societal benefits that are believed (as opposed to proven) to flow from free trade. The traditional policy community remains dominant, but significant disputes between state assistance and free trade communities typically frame the Canadian negotiating positions. Because the loss of instrument choices is commonly identified as the reason why the state cannot support the evolution of local/sustainable systems, the instrument choice frame is highly pertinent.

Using a textual analysis, MacRae (2014) concludes that there are numerous ways to promote local/sustainable food system development without running afoul of trade agreements. Bundling local and sustainable production together may create new opportunities for exemptions and re-categorization of initiatives to non-discriminatory trade status. Depending on the deal, sub-national governments, para-governmental agencies and NGOs are often exempt, and many food and agricultural sectors will support such exemptions because they are disfavoured by the agreements. Ultimately, innovative ideas to promote local/sustainable food that do not fall under existing categories or clauses may not attract attention because they are not sufficiently significant to trigger a trade dispute.

2. *Federal legislative change is the primary focus: Agricultural pesticides*[12] (MacRae et al., 2012)

Agricultural pesticide use remains a strategic target for social movements as the evidence of harm to ecosystems and human health is now well established. Although there has been progress reducing use of many of the most problematic pesticides, the pace of change has been much slower than many advocates, and indeed many farmers, would have hoped. MacRae et al. (2012) examined the tensions across the traditional policy network and with ENGOs from the late 80s, including the pesticide registration review of 1988-92 that led to the transfer of regulatory authority from Agriculture and Agri-food Canada to Health Canada, the passing of a new Pest Control Products Act (adopted in 2002, brought into force in 2006), and the development of a new programme to encourage pesticide reduction, the Pesticide Risk Reduction and Minor Use Programme (PRRMUP). This research was inspired by the confusing events leading up to, and immediately post-adoption of, the new pesticide legislation, and the ENGOs efforts to understand why their advocacy was not entirely successful.

How firmly embedded was the status quo? What was the role of the state in supporting the status quo or is it more deeply cultural and economic with minimal current state intervention? What is

[12] Note that there is a different, albeit significant story to be told about the cosmetic use ban in urban / suburban areas as highlighted above in the Supreme Court decision of *Spraytech vs. Hudson*.

the role of ideas/discourses? To what extent are the environmental and technological contexts important to understanding the change process?

Reliance on pesticides is both deeply cultural and deeply regulatory. The industrial food production paradigm and practice is heavily wedded to synthetic chemical inputs, including pesticides. The discussion above of the dominant paradigm of agriculture science is deeply applicable, and pesticides have been a central tool of the long standing cultural notion that we are at war with nature. The policy system has clearly adopted such paradigms. The dominant assumption, therefore, is that pesticides are useful if their inherent toxicity (as killing agents) is properly applied and managed. Equally important, the policy system has doubts about alternative approaches, partly reflected in the absence of an effective national strategy to reduce pesticide use[13]. One reason for the absence of an effective strategy is that many pest problems result from poor farm design (issues of rotation, location, canopy, timing, borders, etc), and there has been a reluctance on the part of government regulators and extension staff to propose significant changes to farm design, that being considered the purview of the individual property owner. Pesticide costs are low relative to reliance[14] and many externalized costs are unpaid by pesticide users (Tegtmeier and Duffy, 2004). This has discouraged farmer willingness to invest in new approaches and created an accentuated aura of importance for pesticides as the primary pest control method. Issues of economy and geography are also important because pesticide use varies tremendously across regions and crops, with regulatory decisions having differential impacts. Some sectors, consequently, have been more interested in alternative approaches and this has helped create strange alliances, for example the apple and canola industries participating in advocacy work with World Wildlife Fund Canada (see MacRae et al., 2012).

What level of government has lead jurisdiction? Are other levels of government competing for leadership on the file? Or is the issue one that everyone wants to avoid?

The federal government has authority for registration, classification and labeling, and the provinces for regulating use (Hill, 1994). Municipalities in some provinces now have some authority over use regulation as well. The registration authority is expressed through the Pest Control Products Act (PCPA). It first appeared in 1927, as the Agricultural Pests Control Act. The legislation allowed the Minister of Agriculture to deny registration on the grounds of adulteration, lack of efficacy, copy-cat qualities, and threats to public health. This latter provision was very general, although there were some more specific controls over pesticide

[13] MacRae was involved as a consultant in efforts to set up the Pest Management Centre and PRRMUP, providing extensive advice to the federal government on how to improve the programs. Only some of that advice was heeded.
[14] 6% of farm operating expenses in 2011 Statistics Canada (2011)

residues in the Food and Drugs Act of 1920. The Agricultural Pests Control Act was amended in 1939, with some expanded provisions related to its main purposes - to ensure farmer access to non-fraudulent products - and a new name, the Pest Control Products Act. From 1939 to 1969, there were only incremental adjustments to the Act. Experimental evidence to justify a product's use was first introduced in 1949 and modified in 1954, but regulators did not challenge the validity of manufacturers' claims. The 1969 version of the legislation was considered a very significant modernization because it was the first to substantially recognize pesticides' potential for harm (Hill, 1994). The Act was not significantly revised between 1969 and 2002, despite substantial new knowledge about pesticides and their chemistry.

The legislative framework has never been designed to encourage pesticide reduction, focusing instead largely on the conditions to be met for the registration – or pre-market clearance - of pesticides (Castrilli and Vigod, 1987). This situation exists because food safety legislation in Canada has been built on an anti-adulteration platform (Ostry, 2006; Blay-Palmer, 2008) that is not designed to encouraging changes in production practices that would focus on pest prevention and thereby reduce reliance on pesticides. Some analysts trace the problem to the absence of provisions in the Canadian constitution (the British North America Act of 1867) that expressly authorize the regulation of poisons (Hill, 1994). Some provinces have developed significant pesticide reduction strategies as part of their authority for agricultural land use and practices, but most of these have experienced only limited success. Some commodity organizations have also participated in programming spearheaded by the new federal programmes, but farm adoption of new systems has been limited.

Where within the decision making structures were decisions being made? Particularly, was the issue a Parliamentary discussion? Or were decisions largely being made at a sub-parliamentary level?

The legislation was clearly a parliamentary discussion. Advocates for legislative change, however, were not very cognizant of the wider angle dynamics between parliament, the PMO and line departments. The sub-parliamentary dimensions of this case were not very obvious to ENGOs and they failed to appreciate how significantly they would affect the outcomes of the legislative and programme design process.

What unit of analysis is appropriate? Multiple departments across one level? Multiple departments across multiple levels, a sub-unit within one department?

In the 1980s, the Plant Products Division (PPD) of AAFC was responsible for administration of the Pest Control Products Act, but it did get assistance from other departments informally, principally Health Canada, Environment Canada (EC) and Fisheries and Oceans Canada. These

arrangements had started in the 1960s. The collaborations were formalized in the 1980s, as AAFC attempted to fend off calls for transfer of authority to Health or Environment Canada. They also created a Pesticides Directorate in the 80s to take over responsibilities from the Plant Products Division. Additionally, through this period a series of changes were initiated by the civil service, attempts to address (ultimately unsuccessfully) the critics' concerns. HC and EC were not satisfied either, in part feeling that their reputations as effective regulators were being challenged by the critics, and their advice not properly heeded by AAFC. AAFC could refuse Health Canada's recommendations on registrations and Environment Canada's big concern was the lack of attention given by the Minister of Agriculture to environmental issues.

In the 1990s, authority was largely transferred to a new unit within Health Canada, the Pest Management Regulatory Agency (PMRA), but some of the same interdepartmental tensions remained and the stakeholders remained largely dissatisfied with the shift in locus. Reduced risk pesticide programming is shared between AAFC and the PMRA.

Where do the issues fit traditionally on the private sector – NGO – public sector spectrum of activity?

Intense political battles between the main policy actors - pesticide firms, farmers, NGOs and regulators - were the norm from the 80s. These battles reflected widely divergent views amongst stakeholders about the utility vs. costs of agrichemicals and the industrial food production model, who should regulate pesticides and what exactly should be regulated, and individual vs. collective rights. The private sector (manufacturers and farmers) felt strongly that other actors should have only limited say in these discussions because their economic livelihood was not at stake. The NGOs believed they were the only parties really concerned about common good issues. The regulators, ultimately, had final authority over what was permitted and how it was to be used.

How skillful and resourced are CSOs on the issue?

ENGOs have been significantly involved in this issue since the 1970s, with larger ones such as CELA, Pollution Probe and WWF contributing significant resources to the issue. Many smaller organizations have also participated, though frequently from a less skillful and financially weaker base. WWF-Canada and CELA were particularly active in the 1990s and 2000s keeping the need for new legislation front and centre. They went to the extent of engaging a law firm, on a pro-bono basis, to write a completely new and detailed bill, based particularly on ENGO interpretations of the most progressive pesticide acts and regulations in the USA and Europe. The resulting proposed bill was submitted to the Health Minister in 2000, and several meetings were held with the Minister's staff regarding its content and the prospects for introduction. Their

interventions did significantly hastened introduction of a bill, but not one with the desired content. They also participated in a strange bedfellows alliance, during the PCPA parliamentary committee hearings, with the Canola Council of Canada and the Canadian Manufacturers of Chemical Specialties Association that ultimately provoked development of a reduced risk pesticide programme. WWF in particular, was sophisticated enough in its interactions with the civil service to play a significant part in the development of new programmes. Ultimately, this NGO participation produced an environment more conducive with a regulatory pluralistic view of policy making and programme design.

Are there niches or on-the-ground exemplars that show how practice can guide better policy, and how policy improvements can lead to more on-the-ground activity?

Yes, both governmental and non-governmental initiatives had shown how pesticide reduction was feasible and achievable. But federal officials had argued for years that the 1969 legislation did not give them the authority to put in place a pesticide reduction programme.

Additional explanatory features of the frameworks

As with case #1, the agroecological paradigm helped identify the weaknesses of the chemical model of food production, and the parameters of a more ecological (reduced pesticide use) approach. The policy community / policy network frame was important for understanding the interactions among the many governmental and non-governmental actors attempting to influence new legislative and programmatic initiatives. Non-traditional participants in the policy network behaved consistent with a non-hegemonic approach to engagement, attempting to collaborate with those traditionally viewed as opponents to advance what turned out to be somewhat common agendas for change. The ENGO network did mature during the PCPA debates. The creation of unusual alliances reflected their collective ability to establish functional and cordial relationships that permitted different kinds of discussions to take place. The focus had shifted from criticisms of the pesticide system to a more sophisticated understanding of legislation, regulation and structures, skills that were weaker in the earlier advocacy phases. At some level, the CSOs were more knowledgeable about the details of the bill than were the civil service. That they were able to write detailed amendments, and identify extensive gaps in the knowledge of PMRA staff speaks to this. This also addresses the opportunities presented when one knows the file as well as the opposition. But, to be successful, this experience demonstrates that such knowledge has to extend to the sub-regulatory level. The work with the Pest Management Centre also reflected a more sophisticated ability to participate in bureaucratic processes. Relationships were built by providing information and analysis that the new division did not have, but recognized they needed. The outcomes demonstrated that ENGO work can be adopted, almost

unedited, if properly framed and presented, and no credit demanded, but that this requires different skill sets of advocates compared to parliamentary-level work.

Hill's (1994) loci of decision-making approach was critical to understanding the 1980s and 1990s tensions within departments and among external actors. The wider policy network was also involved in agenda setting, taking advantage of certain policy moments/windows (Kingdon, 1995) to press for changes. Savoie (1999)'s interpretation of governing from the centre was used to understand the dynamics witnessed between the governing party, the PMO, the PCO and senior staff of the PMRA during committee hearings on the bill. MacRae et al. (2012) ultimately reveal how fundamental a role the civil service played in establishing a new loci of decision making (the transfer from AAFC to HC), in parliamentary hearings for a new PCPA, and in program design. Their analysis shows how parliament is limited in its ability to fulfill its traditional role as overseer of government, as senior bureaucrats from the Pest Management Regulatory Agency, in concert with officials from the PCO, Justice Department and PMO, worked to restrict opposition influence over the shape of the bill. As well, sub-regulatory instruments shaped execution of legislation without any parliamentary oversight. In the post-bill programme design phase, the willingness of the civil service to engage with ENGOs was explicable within a regulatory pluralism frames adapted from Gunningham's (2005) work. In many ways, this interaction with the state was the most successful of NGO interventions, identifying the opportunities for new kinds of influence.

3. *Provincial policy and programme design: Integrating food into primary health care* (MacRae, in preparation)

Canada has not organized its health care system, in particular primary care, to reflect the evidence connecting diet and health. Many chronic diseases and conditions, including cardiovascular disease, hypertension and stress, cancer, diabetes, low birth weight infants (and associated problems), anaemia, and some infections in children are strongly related to nutrition. The absence of health care design features linking diet, health and primary care is compounded by Canada's deficient primary care performance relative to many other industrial nations (Glazier, 2012). The costs of primary care are high relative to the quality of delivery and health care outcomes, with other parts of the health care system stretched because of primary care deficiencies (e.g., Emergency Departments of hospitals). Efforts to integrate health promotion and disease prevention in primary care, rather than just curative treatment, have not historically been very successful (Nutting, 1986) and consequently, using food as a health promotion strategy is similarly compromised.

How firmly embedded was the status quo? What was the role of the state in supporting the status quo or is it more deeply cultural and economic with minimal current state intervention? What is

the role of ideas/discourses? To what extent are the environmental and technological contexts important to understanding the change process?

The dominant approach is deeply cultural and legislative. Health promotion is not valued by the dominant health system. The federal government never implemented phase II of the Douglas proposals to design a community-based health promotion system to complement publicly – funded health insurance. The supply of services, primarily those of doctors and hospitals, drive demand for health care. Consequently, when people are healthier, the perverse incentives of the system cause service providers to look for new patients. Physicians are the primary gatekeepers of patient care. The state negotiates with doctor associations to govern the system. A significant inequality exists between rural and urban services. Physicians do not behave as if food access has a significant impact on health.

Yet, primary care still represents an opportune place for food as health promotion. Providing a foothold for augmenting the role, primary care has traditionally focussed on some of the more limited dimensions of disease prevention and health promotion: immunization, screening, basic risk assessments, one on one health behaviour education and counselling. In contrast, the hospital sector is more designed for acute care, and long term and palliative care are not, by definition, about prevention. Although there are debates about the effectiveness of current primary care interventions, MacRae (in preparation) explores going beyond such limited approaches as they relate to food.

Such work is timely because a primary care reform agenda is being implemented in many provinces. The traditional physician fee for service model is less popular and new approaches that blend capitation, fee for service and salary are being explored. Increasingly, physicians are organized in teams and groups, with new types of incentives, and patients enrolled specifically with that team. Some groups involve a range of health care professionals, many of whom have stronger training in health promotion than doctors. Within an efficiency and substitution transition approach, are there significant opportunities to advance food as health promotion within primary care?

What level of government has lead jurisdiction? Are other levels of government competing for leadership on the file? Or is the issue one that everyone wants to avoid? (Jackman, 2000)

The Canada Health Act is the overarching federal legislation[15]. But health has been seen for some time as a federal provincial/territorial partnership, with some aspects delivered by the municipalities, particularly public health.

[15] Note that this Act is not really about ensuring the optimal health of Canadian's despite some of the language of the Act. Its primary purpose is to govern the conditions of money transfers to the provinces.

"…. at the time of Confederation, however, health care was not considered a matter of national importance but was seen primarily as an issue of private or local interest. In the event of illness, most people were dependent on their families and neighbours for care within the home. What little institutionalized health care did exist in 1867 was organized and delivered largely by local charities and religious groups rather than by the state..... As a consequence, the Constitution Act,1867 does not include "health" as a specific head of federal or provincial legislative responsibility." (Jackman, 2000)

Municipalities, thus, where there was any state intervention, were seen to be the responsible jurisdiction until the 20th century. Such authorities have been morphed, in the current period, into responsibility for community health delivery and local health planning. Federal jurisdiction in health then flows from its spending and criminal law power. The Canada Health Act essentially forces provinces to participate in cost-shared arrangements to fund health care. It works with the Federal Provincial Fiscal Arrangements Act, and the Canadian Health Transfer (CHT), to force provinces to meet certain conditions in order to receive money. It is defended legally as the setting of national standards, a constitutional authority of the federal government.

The criminal law power of the federal government is used, for example, to regulate safety of products under the Food and Drugs Act, as part of ensuring the physical health and safety of the public. There are, however, legal debates about the degree to which criminal law powers can be invoked when intervening in health, which raises questions about a truly substantial federal intervention in health promotion beyond traditional health and safety issues. Sounding a more interventionist note, regulatory, rather than just prohibitive, initiatives have been supported recently by the courts as legitimate under traditional spending authority. The courts appear to have extended the federal role in environmental health as well. There have also recently been decisions that support the view that the federal government has the right to intervene when situations are clearly national in scope, beyond individual provinces, under the peace, order and good government provisions of the Constitution.

From the constitution, the provinces have exclusive authority over establishment, maintenance and management of hospitals. With jurisdiction over property and civil rights as well, which supports provincial regulation of relations between individuals, the provinces have primary responsibility for health care delivery. Most provinces have public health acts granting authority to a medical officer of health and the power to regulate health professions and practices. Health insurance is also provincial jurisdiction.

The federal government, thus, has indirect ability to shape health care compared to the provinces, but a sense of partnership was somewhat formalized in the first Health Accord of 2004.The Accord identified the need for public health and health promotion coordinated and planned interventions[16], though there hasn't been much success on executing this part of the

[16] http://www.hc-sc.gc.ca/hcs-sss/delivery-prestation/fptcollab/2004-fmm-rpm/index-eng.php

agreement. But the current federal government unilaterally decided not to renew the Accord and set the financial transfer schedule without consulting the provinces, and is essentially saying health care is provincial jurisdiction and the federal government will provide some money, with transfers progressively restricted. In this 2014 Accord, only the principles of the Canada Health Act apply. The current federal government is effectively abandoning a quality oversight role.

What unit of analysis is appropriate? Multiple departments across one level? Multiple departments across multiple levels, a sub-unit within one department?

The jurisdictional and financial quagmires of health care create multiple sites for decision making. In areas of health promotion, the provincial role is paramount, with municipalities substantially involved in delivery, but this area is poorly funded relative to acute care and receives limited attention from medical associations, hospitals and provincial ministries of health. Food as a health promotion strategy receives even scanter resources and is a significant discussion in only a limited number of sites, most typically municipal public health units. This reality reflects the dominant norms and assumptions that health care and health care professionals create health, as opposed to social determinants.

Where do the issues fit traditionally on the private sector – NGO – public sector spectrum of activity?

Much of health care policy is negotiated, given constitutional traditions, between the government, the hospital sector and the provincial medical associations (e.g, the OMA), a limited negotiated governance model. The pharmaceutical industry is the most influential private sector actor, although since doctors in private practice are essentially small businesses, they too can be viewed as significant private sector players. NGOs are active in some subsectors, not so much in others. Food NGOs have had very modest influence, and where it has occurred has often been associated with some programme successes.

How skillful and resourced are CSOs on the issue?

Policy influence is generally limited except in some municipalities and few food NGOs focus particularly on the health sector. There is no NGO network actively attempting to integrate food into primary health care.

Are there niches or on-the-ground exemplars that show how practice can guide better policy, and how policy improvements can lead to more on-the-ground activity?

Food has long been a key component of health promotion work, but is often centred in public health units, community health centres, and health-focused NGOs. As such, part of the relationship between food and primary care is determined by the larger issue of health promotion and primary care. This is a significant area for scaling up and out.

Additional explanatory features of the frameworks

A social determinants of health frame helps understand the place of food in promoting individual and community health. In a social determinants approach, primary care is only a piece of the health story. Issues of income inequality and other systemic environmental challenges, including the structure of the food system, are bigger issues to be addressed. Consequently, larger strategies to promote optimal population health are ultimately much more significant than primary care, which focuses on individuals and families typically without much attention to the larger environment in which they are situated. The challenge is to better connect primary care to many of these wider interventions.

Given resource and institutional constraints, a key element will be demonstrating who can benefit from a "food as health promotion" strategy. Population epidemiological approaches can uncover this[17], and be combined with health economics to understand how, if diseases and conditions are prevented or delayed, food interventions might contribute to reduced morbidity and mortality and health care savings. Such studies of food intervention costs vs. benefits have been conducted for some time and have shown positive relationships (see TFPC, 1996), but scaling up and out such interventions to create system wide benefits has proven elusive.

Admittedly, the jurisdictional, negotiated governance and financial realities of this domain mean that change is difficult, sometimes characterized as a wicked problem. Path dependence / lock in (Wilsford, 1994) helps to characterize the challenges of moving the health care apparatus in a new direction. "In a path-dependent model, actors are hemmed in by existing institutions and structures that channel them along established policy paths." (Wilsford, 1994:251). Canada has a supply-driven health care system, where certain professional actors hold enormous influence and have few incentives to shift behaviour, practices and structures. Although Wilsford (1994) has identified conjectural movements in some countries where significant health care change has occurred, it is not obvious that such possibilities exist for food in the Canadian health care system. Consequently, proposed interventions will have to work within the constraints imposed by path dependence.

An instrument choice framework provides new explanation when, as in this case, there are many desirable targets, but delivering on them is proving difficult. There is substantial

[17] Typically, given the complex role of food and other factors in diseases and conditions, a multivariate conceptual framework is required, see Victora et al. (1997).

agreement on the need to transform our health care system, but much less on which tools will be most successful. One current instrument approach that fits within existing institutional and negotiating positions is new incentives for hospitals and doctors to align with government policy goals. This approach fits within the efficiency and substitution phase of the Hill and MacRae (1995) transition framework because these new incentives are not too challenging to the status quo, yet begin to advance change incrementally.

Food programme alternatives exist outside the dominant model, consistent with the niches of Geels' (2007, 2011) STR framework. In the Geels framing, the challenge is to integrate these niches within the existing regime and this is what MacRae (in preparation) addresses by examining new and existing structures of primary care delivery and their compatibility with a food as health promotion approach.

4. *Municipal joined up policy – charters, action plans, food policy councils* (MacRae and Donahue, 2013)

Over 60 Canadian municipalities have created food policy organizations, with almost a third having food charters, action plans or strategies, completed or in development, that reflect a joined up food policy approach. These comprehensive plans galvanize diverse actors, set a vision for their actions, and help leverage resources for implementation. They are often endorsed by city council, committees of council, or municipal departments. MacRae and Donahue (2013) surveyed the successes and failures of these municipal efforts and identified important themes that emerge from comparative analysis related to joined up food policy development and execution.

How firmly embedded was the status quo? What was the role of the state in supporting the status quo or is it more deeply cultural and economic with minimal current state intervention? What is the role of ideas/discourses? To what extent are the environmental and technological contexts important to understanding the change process?

As discussed at the beginning of the paper, the embedded assumption of the state is to intervene in the management of food supply and to leave food demand largely to the market place. Food system analysis is largely absent from all levels of government as a result. This constraint is compounded by the perception that food is not part of the municipal agenda, a dominant view particularly in the urban planning profession that has only recently started to shift. The financial pressures on Canadian municipalities, imposed by fiscal reallocations at senior levels, have discouraged potentially interested decision makers from taking on new mandates.

What level of government has lead jurisdiction? Are other levels of government competing for leadership on the file? Or is the issue one that everyone wants to avoid?

Municipalities have limited jurisdictional authority over the food system, yet they are faced with the consequences of the loss of agricultural land, the local effects of pollution and climate change, farmers' financial struggles, residents' uneven access to food, food affordability, public health problems associated with inadequate or poor quality diets, shrinking local food infrastructure, and reduced employment and tax revenues from food-related businesses. Municipalities intervene to address these consequences, sometimes intentionally, sometimes not, often employing food systems thinking. In part, they respond because of the failures of senior level policy and programming. Essentially, if Canada had a coordinated national joined-up food policy, the need for municipal intervention could be different or refocused. But in its absence (and other senior government policy failures), "...[l]ocal (and regional) spaces are now increasingly being viewed as key institutional arenas for a wide range of policy experiments and political strategies. These include new entrepreneurial approaches to local economic development as well as diverse programs of institutional restructuring" (Brenner & Theodore, 2002:1).

Where within the decision making structures have decisions been made? Particularly, has the issue been a Parliamentary discussion? Or were decisions largely made at a sub-parliamentary level?

Because a food system approach is new at a municipal level, it is uncommon for City Council to drive the agenda. Rather, it appears that NGO-departmental collaborations are the impetus, often with a Council champion to ensure a plan is approved.

What unit of analysis is appropriate? Multiple departments across one level? Multiple departments across multiple levels, a sub-unit within one department?

A different set of departments are typically more involved at a municipal level than one finds at senior levels – public health, parks and recreation, planning, economic development, social services – in part because food has not traditionally been viewed as a municipal domain beyond licensing, inspections and traditional public health nutrition. This typically means that no one department has an assigned lead role on food policy which paradoxically allows those most interested to carve out their own space, if they can get City Council support for their initiatives.

Where do the issues fit traditionally on the private sector – NGO – public sector spectrum of activity?

The municipal intersection with food systems preferences certain food firms: retailers, some wholesalers and wholesale markets, certain kinds of manufacturing, restaurants and food service. The farming and input sectors are only marginally involved within many municipal jurisdictions. Provincial departments of agriculture do not see municipal food system issues as part of their mandate unless they impinge upon their traditional responsibilities. The drive for change has come largely from NGOs working with sympathetic departmental (especially public health) and elected officials. The structure and practice of municipal government appears to create opportunity for food NGO engagement that is more substantial than at senior levels.

How skillful and resourced are CSOs on the issue?

Skill levels and resources vary tremendously from one municipality to another. Those municipalities with the most advanced local food policy work also typically have sophisticated CSOs participating.

Are there niches or on-the-ground exemplars that show how practice can guide better policy, and how policy improvements can lead to more on-the-ground activity?

It is the many emerging local projects and practices that typically drive interest in joined-up policy making. Community organizations have constructed many creative and effective alternative food projects, though their scale sometimes limits the number of citizens who can benefit relative to the need. However, these successes demonstrate value to municipal decision makers and create the conditions for a successful policy intervention. A key strategy for both internal and external advocates is to use programme and project successes to drive policy adoption, and then use the existence of a policy to obtain support for more initiatives to give substance to the policy.

Additional explanatory features of the frameworks

The Advocacy Coalition framework was useful at the municipal level because many successes have depended on local champions (for stories, see MacRae and Donahue, 2013). Their real value may be the tactical advice and skills they offer, rather than necessarily direct influence. Champions can navigate institutional structures and arrangements and know how to work across the full political spectrum. They are also skilled at advising external advocates on tactics to influence internal actors.

Concepts of regulatory pluralism are also very germane as the municipal level engages a wide variety of actors in programme and policy conception and delivery. Elected municipal officials often recognize the value of non-governmental actors more readily than occurs at senior

levels of government. Food Policy Councils are an explicit acknowledgement that municipal governments on their own lack the expertise to engage in effective interventions.

Because of both proximity to the citizenry and transparency, the institutional contradictions of municipal government can be more apparent, which the new institutionalism frame helps analysts understand. A key role for FPCs, given that they are frequently embedded in the structures of municipality government, is to exploit these contradictions to advance food policy change.

As with most food policy change, Kingdon's (1995) frame is very useful. This was especially exemplified in BC, where a policy window was created by the Olympics, and the desire to create a healthy population. Numerous changes were made to public health programming and funding arrangements that BC municipalities were able to take advantage of to advance local food policy development. It was also feasible to attach food to other existing policy agendas, including climate change mitigation, because of municipal and provincial commitments to improvements.

The diversity of modes for instrument choice across the 60 municipalities was analyzed using lessons from Hill (1994).The wide variety of attachments and instruments employed required categorization in order to see patterns in the data. MacRae and Donahue (2013) ultimately concluded that certain kinds of attachments and instruments were associated with greater likelihoods of success.

Voss et al's (2009) transition management approach also has some pertinence in this case, the only one where it is applicable. Municipal food policy development has not faced the same level of contestation as other levels of governance. Food policy councils act as a form of transition arena. The charters represent a vision for change and the action plans that flow from them can be viewed as products of a conceptual backcasting. Municipalities frequently support pilot initiatives to test the proposed changes and then formally evaluate their merits, subsequently modifying the approach or scaling up implementation.

Conclusion

Ultimately, we are searching for explanatory power in a complex field with many seemingly intransigent problems. There are many potentially valuable frames across multiple disciplines that can add value to our understanding of the changes required and the change process itself. Although many of these frames are overlapping and interconnected, they also have unique and distinct aspects. The challenge is to find ways to blend them together to enhance, rather than confuse, our learning. And they must ultimately help us find transition paths, without being deformed, through a policy environment characterized, as Voss et al. (2009:287) highlight, by

"…positivist policy-making, new public management or market-liberalism. Those paradigms are deeply ingrained in policy discourse, institutions and practices including tools like forecasting models, cost-benefit analysis, budgeting and controlling procedures or project evaluation manuals. "According to Voss et al. (2009), most deformation of transition design occurs during implementation, when the interaction with perverse policy institutions, cultures and contexts can completely distort a sophisticated plan. The discussion of norms and assumptions in the dominant policy system is highly pertinent here. But without a plan, there is no coherent direction and transition is about direction. A robust transition plan must ultimately frame and structure what actors involved in policy change do (Voss et al. 2009).

Some confounding difficulties of the blending process include:

- The implicit and explicit conditions in which each framework was elaborated do not necessarily line up with Canadian food policy realities. Teasing out what is comparable, and how much, is typically inexact.
- The frameworks have different degrees of causal vs. normative features. Although normative inquiry builds off causal factors, it is not a causal process per se. How applicable causal frameworks can be for normative inquiry is also a challenging exploration.
- Different frameworks espouse different degrees of political contestation vs. approval. Some really only work when the policy making apparatus is largely supportive. Others presume that the policy system only moves when under significant political pressure.
- Normative processes are not testable in the traditional sense, so it's not entirely clear what will work. This obviously has an impact on policy design, execution and evaluation, especially in a change-resistant organizational culture.
- The Canadian food movement is relatively young (and may not really be a movement) which means it is not always able to play the roles commonly played by social movements in change processes; related to this, different frameworks take different account of political power.
- Our understanding of complex phenomena is also relatively immature and most policy actors, both governmental and non-governmental, do not have sufficient grounding in this field to robustly understand what they are observing and experiencing.
- Transition thinking is also in its infancy, with only a limited number of researchers and participants using it to guide their solutions.
- Given current complexities and the new knowledge that has emerged since Canada's Confederation, the legal foundations of many interventions are not enabling of the change

process. Relying, for example, on the federal criminal law power to design "food as health promotion" tools has significant limitations.

- Among policy actors, many relationships remain competitive and antagonistic, with limited capacity for collaboration. This happens within and across different policy communities. Although not all change processes depend on a more pluralistic approach, many appear to require it, but the actors are not that skilled or experienced at working together. Entrenched ideologies, structures and jurisdictions contribute to this problem.
- Some frames raise significant questions about the nature of democratic processes. Although reflexive governance is championed by some as a more democratic way forward (Voss et al., 2009), advocates for change may not be capable of creating widespread consensus on complex policy issues (see MacRae & Abergel, 2012). This raises the possibility that small groups may ultimately be more successful at detailed policy construction, but without democratic participation at the construction stage. But can participatory processes at the execution stage compensate for this apparent democratic deficit?

Blending frames is challenging because it resembles a grounded theory approach. One sees certain phenomena and tries to make sense of them, looking at other work to potentially find explanation. To know if such approaches truly add value is also difficult and relies on triangulation from different sources and an understanding of different forms of research validity, including face validity, convergent or discriminant validity, catalytic validity, and whether the work is usefu1 and illuminating (Reason and Rowan, 1981)[18]. If successful, the reward is a clear-eyed view of current problems and how they might be solved, hopefully setting the stage for an action agenda that leads to a joined-up food policy for Canada.

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[18] Face validity (whether it looks right to the discriminating observer); convergent or discriminant validity (defined by Reason and Rowan [1981:240] as .. "when a number of measures which purport to measure the same thing all point in the same direction"); contextual validity (how any piece of data fits in with the whole picture); catalytic validity (allowing individuals or groups to take action based on the study resu1ts); whether the work is usefu1 and illuminating (providing some clarity on a topic that was not previously apparent).

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