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Much as we might like to think of the academy as an enlightened domain of pure knowledge creation, it is inextricably linked to financial and corporate influences. The business of academic publishing is a complex ecosystem of actors, processes, expectations, and perversions. Many of us have encountered indeed, reinforced—such entanglements. But when we start to unpack this system, it can present some pretty nefarious effects. Within the morass of issues, advocates for Open are trying to imagine another way of doing things. Open education and open educational resources (OER), open publishing, and open distribution are all part of the eco-system of open knowledge.



Editorial

O is for open (as well as optimal, operable, optimistic, organic)

David Szanto & Alexia Moyer

Much as we might like to think of the academy as an enlightened domain of pure knowledge creation, it is inextricably linked to financial and corporate influences. The business of academic publishing is a complex ecosystem of actors, processes, expectations, and perversions. Many of us have encountered—indeed, have reinforced—such entanglements. Very often our academic success depends on learning the rules of engagement and then following them. We research, we write, we publish; we review, we critique, we edit. We make our textual submissions and pay our subscription fees, whether directly to a journal or indirectly through our participation in the institutions, organizations, and libraries to which we are connected.

But this system, when we start to unpack it, can present some pretty nefarious effects. Research papers published in for-profit journals are not easily and freely accessible to those outside of institutional life. Yet these papers are generally produced by people with access to public funding, either from research councils or educational institutions. By paying for journal articles that sit behind paywalls, we are effectively transferring tax revenue into the pockets of private corporations. Of course, for those who can't or don't want to pay, there are semi- and non-legal options, but even 'free' access to PDFs comes with costs (often folded back into commercial publishers' fee structures).

Other significant issues arise from for-profit knowledge. Students with limited income are often forced to make program and course decisions based on the price of textbooks and learning resources. Worse, they sometimes have to decide between buying these materials and eating well. Scholars, who choose to flout copyright and publicly post copies of their work, can face intimidating legal missives from publishers. Junior academics, trying to move up in their careers, and who have less access to knowledge dissemination funding, may opt to publish with a paywalled journal, reinforcing the system and limiting broader access to their work.

Within this morass of issues, advocates for Open are trying to imagine another way of doing things. Open education and open educational resources (OER), open publishing, and open distribution are all part of the eco-system of open knowledge. Open source software and open licensing undergird the movement, creating powerful tools that are non-private and freely

adaptable. Other efforts—including opening up peer review, attending to accessibility standards, and acknowledging editorial input—address early concerns about the quality and rigor of open publishing (which is sometimes confused with vanity and self-publishing). Organizations like <u>SPARC</u> (the Scholarly Publishing and Academic Resources Coalition), <u>Creative Commons</u>, <u>GNU</u>, and the <u>Rebus Foundation</u> all support and contribute to the eco-system, but its long-term resilience depends on the participation of the multitudes, of *us*.

Canadian Food Studies/La Revue canadienne des études sur l'alimentation is itself part of this world, providing open access to its contributors' content. Our workflow systems and website are built on the open-source platform, <u>OJS (Open Journal Systems)</u>, which is an initiative of the Public Knowledge Project (PKP). Like many other open access journals, we charge our authors a publishing fee, which varies according to their financial means and submission type. (<u>See the CFS/RCÉA fee schedule for details.</u>) These fees allow us to keep the journal in operation, covering administrative costs and copyediting fees, while resisting the need for other sources of revenue such as advertising and data analytics. Although our editors work on a volunteer basis, each article comes with production costs, and over the long term, we want CFS/RCÉA to remain sustainable, both in terms of labour and finances.

Yet even as journals like ours participate in the open eco-system, many of the giant academic publishers are also moving towards open access. But it's not out of the goodness of their hearts. Insiders acknowledge that open is the wave of the future, and so for-profit publishers have recognized that they need to change their revenue models. This is why many of them have moved into the highly lucrative (and extremely problematic) business of selling data analytics—processed user behaviour that is in turn sold to academic institutions to improve their own financial performance. This then has effects on the selective hiring of professors, the valorization of one or another research program, the investment in new pedagogical initiatives, and, importantly, the attraction of specific student populations. While some might tout this as the 'smartening' of the education industry, data-driven decision making is never without bias. Algorithms and predictive technologies invariably allow for systemic discrimination to become baked in, reinforcing many of the same social justice issues that food scholars often seek to undo.

So what are we to do? Once one dives into the murk, it may seem that, as individuals, we are mostly fairly powerless. Like every complex system, academic publishing presents challenges that can neither be understood nor addressed simply. Yet there are many ways to engage. The most significant are to talk about how messy the industry is, to investigate and learn about it, to think about our publishing choices wisely, and to support those who choose to do work that returns more value to learners and researchers, and focuses less on academic prestige and advancement. That doesn't mean giving up on our careers, it just means realigning our values and being mindful of the implications embedded in our choices. (Kind of like everything we do within food systems...)

As CFS/RCÉA continues to evolve and grow, we will remain committed to providing full, free, and open access to the content our contributors create. We will adapt with the times,

stay open to critiques and recommendations, and respond to the needs of the CAFS/ACÉA community and food scholarship more broadly. We are grateful to have you along for the ride.

Speaking of opening things up, this issue of CFS/RCEA brings together two perspectives, one narrative, two research articles and four book reviews.

We kick off with Charlene Elliott's reflections on play and food. While many of us may have once been admonished for playing around the table, the world of children's packaged foods says otherwise. Elliott explores what play looks like to producers of such foods, as well as to the parents and children who consume them—or not—and to the governments who regulate them.

Next, is Sarah Elton's contemplation of the 'obesity crisis'. Are increasing waistlines the most appropriate rationale for overhauling the food system, asks Elton, as she makes a case that human health is more profoundly and inextricably tied to ecological criteria. If kale is grown in such a way that damages the water on which we rely, then can it really be called healthy?

In her narrative—"Who are the Cattails? Stories of Algonquin Anishinaabe Food Systems"—Kaitlyn Patterson is equally wary of such tendencies toward oversimplification. She writes, "as dietitians, we study the function of food within our human bodies, but we are not often taught to think about the *who* behind our more-than-human food sources. Who are the living, diverse beings whom we consume (plants and animals included)? How do we take care of one another?"

What follows is a territorial approach to understanding the food system, an original research article by Manon Boulianne, Carole Després, Patrick Mundler, Geneviève Parent, and Véronique Provencher of l'Université Laval. Boulianne et al. are concerned with mapping out the modalities of production and exchange that ultimately nourish the inhabitants of a particular region, in this case the Quebec City area.

Elaine Power, Julie Dietrich, Zoe Walter, and Susan Belyea round out this section with a study of student experiences of food insecurity at Queen's University. Their interviewees include first-generation Canadians, international students, Indigenous students, law students and undergraduate students transitioning to independent living.

Should you find room on your double-stacked bookcases, book reviews editor Michael Classens and his team of critical readers lead us through a selection of the latest food-centered offerings. Jennifer Sumner relates the ways in which chef and food activist Joshna Maharaj's *Take Back the Tray: Revolutionizing Food in Hospitals, Schools, and Other Institutions* is every bit as "original, bright, and nourishing" as the food she makes. Japji Bas, Jake Robitaille and Alejandro Bas engage in a collaborative and personal exploration of Amy Symmington's *The Long Table Cookbook.* The result is a thoughtful search for community in a time of physical distancing. Kaitlyn Duthie-Kannikkatt sifts through *Thinking With Soils: Material Politics and Social Theory*, turning it over and deftly taking its measure. And finally, Rachel Mason carefully unpacks the relationship between meat and the environment as tackled by editors Ryan M. Katz-Rosene and Sarah J. Martin in *Green Mean? Sustaining Eaters, Animals, and the Planet*.



Perspective

Food marketing and the regulation of children's taste: On packaged foods, paratexts, and prohibitions

Charlene Elliott*

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Abstract

Playing with food has long been understood as a part of childhood, with adults placing rules around children's eating. Over the past few decades, children's imaginative food play has been commodified by the food industry—the play has been packaged and sold back to children, with fun appeals, cartoon characters, and bright packaging used to identify packaged foods as 'for kids.' Yet with increasing rates of childhood obesity, the very foods designed to appeal to children are now subject to new forms of regulation. This Perspective explores how play and food are expressed and controlled in the world of children's packaged foods, including an exploration of how play and food are being promoted to children by the use of licensed characters from children's media culture. Specifically, I argue that there is particular purchase in recognizing licensed characters as *paratexts* (rather than simply cartoon appeals). Doing so reconfigures the conversations about child-targeted promotional appeals in new and significant ways, shifting the conversation from issues of obesity and regulation to those of media culture and commercialization.

Keywords: Food marketing; taste; child; packaging; regulation; food

Don't play with your food!

Such is the title of Jay Mechling's delightful article in *Children's Folklore Review*, which aims to "begin mapping the territory called 'playing with food'" in order to better understand its meaning and functions (2000, p. 7). Although two decades old, the article still resonates. Mechling queries, "is there a person alive who hasn't been told at some time "Don't play with your food?" (2000, p. 7). His article explores why the "very triviality of food play" matters individually and socially (Mechling, 2000, p. 7). Children's imaginary play with respect to food—be it creating "erupting volcanoes" out of mashed potatoes and gravy or biting the bottom off of a sugar cone to suck out the ice cream (Mechling, 2000, p. 13)—functions as a type of creative behaviour and expression of identity for children. The injunction "don't play with your food", he suggests, is an adult attempt to both establish rules around eating and to affirm power. Playing with food is one way children seek to demonstrate their own power; regulating and establishing rules around that play is how adults claim that power back.

The command "don't play with your food!" neatly captures the various themes I wish to take up in this perspective, including notions of *food, children and identity*, and *play, governance and control*. Food is (obviously) sensory; children's food play takes these sensory aspects, and then adds another tactile, imaginative layer of meaning. When adults place rules on children's food play, complexity is added to the process; that is, children have their own tastes, but they are governed in particular ways.

Of the many potential angles one might consider on this topic, here I focus on how play and food are expressed, and also controlled, in the world of children's packaged foods. My core argument is that the concept of 'kids' food' has been powerfully advanced and channelled by the food industry, and central to that is the notion of fun. As promoted by the food industry, kids food is, by definition, 'fun' (Elliott, 2012; 2015). Fun and play are key to these foodstrumpeted from the packaging (with cartoon characters, colourful labels and fun names)-and sometimes found in the shapes and colours of the food itself. Due to rising rates of childhood obesity, however, the very appeals used to make foods 'fun' for kids are now viewed (by governments, the public health community and others) as 'risky' and requiring of regulation (Elliott, 2020). A tension thus arises: packaging appeals on child-targeted foods claim "this food is for play!" Government and public health concerns over the nutritional quality of these foods and the subsequent call for restrictions on the marketing those foods assert, such food, wrapped in playful appeals, is bad and such marketing to kids should be stopped. It is a new variant on the claim, "don't play with your food!" In the final section, I take up how new forms of play and food are being promoted to children by the use of licensed characters from children's media culture, and why such paratexts raise complicated questions when it comes to children, food play, and governance.

The co-optation and commercialization of food play

Mechling (2000) observes that adults send mixed messages to children when it comes to playing with food. Children engage in play with food, which is subject to rules by adults, but adults also co-opt that play by creating commercial products designed to be sold back to the kids (Mechling, 2000, p. 13). This is certainly the case when comes to packaged foods. Kids may play with food by pretending that a bowl of spaghetti is, instead, worms. But then bug-shaped pasta (including one product, with the nudge-and-wink name of "Bug-o-licious pasta") started to appear in the grocery stores, rendering the imaginary play unnecessary. Or consider the marketing of Nabisco Oreo cookies, which explicitly frames Oreos as vector for play. Its advertisements instruct: "Twist 'em, dunk' em, or just plain eat them! There are so many ways to enjoy OREO cookies." Oreo's website affirms that "it's important we stay home. It's also important, now more than ever, to stay together and stay playful", and that "playfulness and joy" can be found in its cookie collection (www.oreo.com). The back of an Oreo package enthuses, "Dip, Dip, Hooray!" Here, the company explicitly tags Oreo's interactive nature, instructing consumers on *how* to play with a cookie (i.e., dip, twist, dunk) and the fact that eating an Oreo is, fundamentally, about play.

While Oreo's campaign aims to appeal to both children and the child in us, child-targeted packaged foods are defined by these appeals to play (Elliott, 2020). Betty Crocker Fruit by the Foot fruit roll ups are to be unrolled into a "Foot of Fun," Envirokidz Turtle Splash cereal is "delicious, fun" cereal (naturespath.com) shaped into baby turtles for kids to chase in the bowl, and Yoplait Tubes of yogurt are not to be eaten with a spoon, but rather designed to be sucked or squirted directly into the mouth. Playfulness, in child-targeted packaged foods, exists on a scale of interactivity from the most minimal (such as the use of a cartoon character found on a package to communicate fun), to more moderate (such as the use of a licensed media character, which links the food to other forms of play/entertainment, such as children's television shows or movies), to highly interactive (such as the instruction to use the cereal or fruit snacks as game pieces for the game printed on the back of the package). Examinations of the highly interactive aspects of children's packaged food and the framing of kids' food as eatertainment have been taken up elsewhere (Elliott, 2008; 2009; 2010; 2012; 2015) and so will not be addressed here. Instead, I wish to engage directly with governing children's tastes, as well as some of the unique implications for playing with food when it comes to the less interactive examples of children's food, specifically the use of licensed media characters on packaged foods, which links them to other forms of entertainment and play.

Governing the play of child-targeted foods and the problem of paratexts

How does the governance of children's tastes play out in our contemporary environment? The situation is complex. Children have an innate tendency to play, and playing with food is part of

that (Mechling, 2000). Adults set rules around such play (e.g., *don't play with your food!*). These are individual interactions, child-parent negotiations over governing appropriate tastes.

As Mechling (2000) notes, adults also send contradictory messages by commodifying imaginary food play. Such commodification, I suggest, moves the negotiation to a more macro level. In this case, the food industry commercializes and channels kids' play by marketing food as fun and by creating child-targeted packaged foods for other adults (parents) to buy for their kids. Child-targeted foods powerfully affirm that *food is about play*. Yet, because of the dubious nutritional quality of the majority of these foods (Aerts & Smits, 2019; Chacon, Letona, & Barnoya, 2013; Chen, Chien, Yang, & Chen, 2019; Devi et al., 2014; Elliott, 2019; Elliott & Scime, 2019; Elliott & Truman, 2020; Giménez, Saldamando, Curutchet, & Ares, 2017;) and concerns over the negative effects of food marketing on children's health (Boyland et al., 2018; Smith, Yeatman & Boyland, 2019; WHO, 2010, 2012), many governments seek to limit the power of such messaging on children. Here, negotiation around governing tastes moves from individual, child-parent interactions to the macro-scale, with the food industry communicating that *this food is about play*! and governments providing the injunction, *don't play with this food*!

Currently, 16 countries have statutory regulations on unhealthy food marketing to children (Taillie, Busey, Stoltze, & Carpentier, 2019), and the Canadian federal government has committed to ban such marketing under its *Healthy Eating Strategy*. As part of this, Health Canada is exploring possible restrictions on the use of cartoon characters, licensed media characters, and other fun, kid-targeted appeals on food packaging.

Where does the notion of paratexts fit and why is it worthy of consideration? Paratexts is a term originating in literary studies used to refer to the physical and conceptual items that surround a literary work but are not the work itself (see Brookey & Gray 2017, p. 101). Paratexts include book covers, prefaces, book reviews, interviews, advertisements, and other promotional materials. They matter because they influence the meanings people attribute to a work (see Brookey & Gray 2017, p. 101). Over the past decade, the concept has been adopted by media scholars, who have used it productively for understanding the promotional and fan materials (such as trailers, merchandise, fan texts and licensed games) that surround film, television, and other media (Brookey & Gray, 2017; Gray, 2010). In fact, promotional culture itself can be understood as a world of paratexts (Aronczyk, 2017).

Given this, I suggest that there is particular purchase in viewing licensed characters found on children's packaged foods as paratexts. First, their presence is ubiquitous. In a recent study of 374 child-targeted foods found in the Canadian supermarket, roughly one of every six products had prominent character licensing (Elliott, 2019). Alongside the *brand mascots* created by food companies (such as Tony the Tiger or Lucky the Leprechaun) sit a vast array of licensed media characters: *Avengers Shreddies, Paw Patrol* waffles, *Minions* cereal, *Scooby Doo* fruit snacks, *Disney Frozen*-themed Cheerios, *Disney Frozen*-theme canned tuna fish, *Darth Vader* granola bars, and *Spiderman* canned pasta. The existence of these licensed characters reveals the extent to which children's media culture is being infused into food. Understanding these products *as paratexts* means a different perspective because the actual play with food is shifted: *Avengers* *Shreddies,* for instance, is as much an advertisement for the movie as it is a strategy to make Shreddies more appealing to kids. *Avengers Shreddies* certainly communicates that the food is for kids by the cartoon image. More significantly, it directs kids' attention to other forms of entertainment. The package becomes an advertisement for 'play' that is to be consumed elsewhere (at the movie theatre). Simply put, unlike all other forms of *play (or don't play) with food,* the viewing of licensed media characters as paratexts also brings in concepts of distance and deferral: namely, that the play advertised on the package is not necessarily to be infused into the food. Rather, the food becomes the vehicle for promoting the movie and thus the 'play' with food refers to a completely different form of entertainment, consumed at another point in time.

Bringing the notion of paratexts to children's food marketing is especially significant in light of recent public health initiatives that aim to combat the negative impacts of food marketing to children. Over the past few years, public health advocates and scholars have championed the use of 'Big Food' marketing strategies on *unprocessed* foods as a means of 'fighting back' against the promotion of unhealthy, processed foods to children (Baldassarre & Campo, 2015; Bezbaruah & Brunt, 2012; Karst, 2018; Kolter, Schiffman & Hanson, 2012; Kraak & Story, 2015). The recommendation is to put licensed media character stickers on unprocessed fruits and vegetables in order to make them more appealing to children. *Sesame Street Elmo* stickers on a watermelon, avocados, and grapes or *Disney Beauty and the Beast* stickers on bananas, pineapples and bagged lettuce, for example, are promoted as a way to make produce more "fun" and "exciting" for children (Disney, n.d.; PMA, n.d.). The starting point for such initiatives is that 'playfulness' associated with such children's entertainment will be transferred by children onto 'boring' produce and that the produce is thereby transformed in some meaningful way.

When viewed through the lens of paratextual theory, we recognize that the assumptions of these initiatives are flawed from the start. Paratextual theory requires that one works out the relationship the paratext has to the larger text, namely, how the movie trailer relates to the movie or the promo to the television show. With the case of Disney, Sesame Street, and other produce character stickers, the larger text is *not* the banana or pineapple; the larger text is the Sesame Street show, the Disney movie and other media products that the produce cartoon sticker advertises. So the question of paratextual theory is *not* about the play that the licensed character produce sticker brings to the produce. Rather it is about what meaning the licenced media character produce sticker brings to the movie or television show it is promoting. Such food play, again, is about children's media culture rather than individual imagination and located worlds away from the sensory, tactile, playing with food that Mechling explores.

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La Revue canadienne des études sur l'alimentation

Perspective

Is the 'obesity crisis' really the health crisis of the food system?: The ecological determinants of health for food system change

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Abstract

Multilateral organizations and research institutions are increasingly calling for transformation of the industrial food system due to its negative health impacts, its contribution to climate change and the fact that the system fails to provide adequate food to more than 800 million people. A common rationale given for food system change is the so-called obesity crisis. This commentary draws from critical weight studies and ecological public health discourses to argue that it is unnecessary to connect the crises of the food system with a rise in overweight and obesity. This approach contributes to fat stigma and further marginalizes a group of people who already suffer from stigmatization. A more inclusive rationale for food system change can be found in a concept articulated by the Canadian Public Health Association termed the 'ecological determinants of health.' These are features of the biosphere such as water, air, food and soil systems that support life on earth and human health. The current industrial food system threatens the ecological determinants of health by contributing substantially to climate change and environmental degradation. A shift in discourse in food policy and practice to focus on the ecological health impacts of the food system is more inclusive and promotes the well-being of all.

Keywords: Ecology; food supply; climate change; obesity crisis

Introduction

Even before the COVID-19 pandemic exposed numerous food system frailties (International Panel of Experts on Sustainable Food Systems, 2020), international multilateral organizations had begun to compile the evidence on the grave health and environmental consequences of the industrial food system. It was in 2019 that the United Nations' Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Service tied industry generally, and the food system specifically, to catastrophic species loss (IPBES, 2019). The independent, international scientific body named the EAT Lancet Commission (The Lancet, 2019) called for a complete transformation of the way food is produced because the system contributes substantially to climate change and environmental degradation. Not only did organizations make the case that the industrial food system threatens climate stability and future food security but the Food and Agriculture Organization (FAO, IFAD, UNICEF, WFP, & WHO 2019) reported that the system also fails to provide healthy and affordable food to many, at a time when pre-pandemic food insecurity was on the rise. We now know that food insecurity since COVID-19 has worsened for many (HLPE, 2020). This institutional alarm came after decades of academic research calling for food system change in response to its environmental and social impacts (see for example this journal's special issue, Clapp et al. (2015)).

Intertwined in calls to action by these institutions are references to what is typically called the 'obesity crisis,' a term familiar in both the nutrition and food systems literature (Lartey et al., 2018; Winson & Choi, 2017) as well as in the mainstream press. The notion of there being a crisis of body weight, according to Cooper (2010), emerged in the late 1990s. Since then, this 'crisis' has been widely used by academics and journalists to critique the food system (Brady et al., 2019). The 'crisis' commonly frames research in the public health and global health discourse (such as da Silva, 2019). When the EAT Lancet report (2019) was released to much fanfare, it was only the latest publication to offer the obesity crisis as a rationale for changing the status quo. In a YouTube video of a public address titled Food, Planet Health, the report's lead author, Dr. Walter Willett, ties environmental crisis to waistlines. He opens his talk stating that "humanity is facing a huge crisis today in terms of environment but also in terms of human health and wellbeing (...). We are facing a massive epidemic of overweight and obesity.¹" The Food and Agriculture Organization of the United Nations (Food and Agriculture Organization, 2019) took a similar tack when reporting on the rise in global hunger. Superimposed on an image of a slum in the Global South, the FAO published, "More than 820 million people do not have enough to eat. At the same time, no region is exempt from the epidemic of overweight and obesity." The World Health Organization also pointed to weight in a 2019 World Food Day statement, labelling rising undernutrition and obesity as a world health crisis, fueled by

¹ This quote has been condensed for clarity in the written form. To compare this edited version to the original video broadcast, visit <u>https://eatforum.org/learn-and-discover/eat-lancet-explained/</u> and watch from 1:00-1:25

"dysfunctional global food systems" (World Health Organization, 2019). The discourse inextricably links the 'obesity-epidemic' to inequitable food access and to the climate crisis.

It is unnecessary to frame the health crises of the food system this way. Citing obesity as the push factor for food system change shifts blame away from food system actors and contributes to the marginalization of certain groups (Arroyo-Johnson & Mincey, 2016) by promoting fat stigma (Russell et al., 2013). This approach targets one group instead of addressing the fundamental health threat posed by the status quo to all populations through its impact on the ecological determinants of health (EDoH). The EDoH is a public health concept articulated by a Canadian Public Health Association working group (CPHA, 2015) to make explicit the connection between the ecosystems of the biosphere and human health and wellbeing. It is a simple concept with multidisciplinary dexterity that could be adopted in food studies and critical global food studies to guide food system change in the name of health. It is well documented in this journal (Levkoe & Blay-Palmer, 2018) and beyond (Blay-Palmer et al., 2016) that food system change is imperative, considering that industrial food production, processing, and distribution destroys biodiversity, damages water systems, endangers soil health, and contributes substantially to climate change (IPCC, 2019). Rather than condemning waistlines, a truly health-promoting understanding of the problems with the food system would conceive of environmental impacts as health impacts. An ecological determinants of health analysis of the food system broadens an understanding of health impacts and points to structural change instead of behavioural solutions.

The ecological determinants of health and problematizing the 'obesity crisis'

The three foremost ecological determinants of health are water, air, and food. The other ecological determinants include: soil systems that support food production, such as the cycling of phosphorus, nitrogen, and potassium; water systems; and a life-supporting climate. Food and the ecological systems that support food production, as well as the systems that provide the fuel and resources that allow for the processing and distribution of foodstuffs, are all dependent on the features of the biosphere and its processes that are called the ecological determinants of health. Health is produced by ecological systems and relationships. Thus, in the same way that the social determinants of health shape individual and population health, so too do the ecological determinants of health.

The EDoH are a convenient concept—simple to explain and to apply (Elton, 2018). The concept builds on decades of scholarship in subfields such as Ecohealth and One Health (Zinsstag, 2012), that have foregrounded the health-supporting role of nonhuman nature. Yet, the insights provided by these decades-old scholarly interventions have not yet been fully realized—not in public health, nor in food studies. As Hancock (2015) and others have argued, since the 1990s, public health has eschewed focus on health threats posed by environmental crises in favour of the social determinants of health, which has informed public perceptions about food

and health too (Rail et al., 2010). In the fields of nutrition, dietetics, and public health as well as in food and food system studies, the health of food typically is understood in one of three ways: in a biomedical frame (how healthy is this food for the body?); a food access frame (who does not have access to affordable, healthy food?); or a food environment frame (how healthy is the food provided by the retail landscape and is it an obesogenic environment?). The ecological determinants of health offer an alternative way to conceive of health in terms of the entire food system—from the seed and the soil to the waste produced in production and at the end of the meal. If the way food is produced, processed, and transported damages ecosystems and contributes to climate change, the healthiness of that food, when viewed through the lens of the EDoH, is diminished because the food production systems harm the ecological determinants of health, which threatens human health. Substantial research in food and food systems studies has explored the ecological benefits of agroecology (Fernandez et al., 2013) as well as other ecologically-grounded approaches to food systems. The EDoH provide the language and the theoretical concept that makes explicit how these systems—be they agroecological, organic, biodynamic, et cetera-are human health supporting. Rather than human health being a state, it is conceived of as something that is produced by interspecies relationships and dependencies, inextricably connecting human wellbeing to nonhuman nature. Following an EDoH logic, human health, when it comes to food, is not produced only by eating well, having enough money to buy food, or living in a neighbourhood where there is access to healthy foods such as fruits and vegetables. Rather the wellbeing of people is produced at every step in the food system, from soil to plate to waste.

The idea that human health vis-à-vis food is interconnected with environmental conditions is not new. Indigenous peoples in Canada have long recognized food in the context of what are now being called the ecological determinants of health (such as Geniusz, 2015). Indigenous food sovereignty work in Canada and Indigenous resurgence includes enabling connection between Indigenous peoples, and what is known in a Euro-Western ontology as nature, in sovereign food systems (Wendimu et al., 2018). Also, the notion of food sovereignty, arising from the Global South in solidarity with Indigenous people and peasants, recognizes the connection between food systems and wellbeing (Patel, 2009). It is not even new in a Euro-Western context. Carlsson, Mehta, and Pettinger (2019) write that in the late 19th century in Canada, a woman named Ellen Swallow Richards, an "ecological nutritionist," promoted thinking about ecology in the context of what was then called home economics. More recently, Lang (2009) put forward the idea that food policy be aligned with ecological public health goals, including consideration for the "physical and material world" (p. 325). In this journal, Seed and Rocha (2018) have suggested that dietary guidelines can help to connect food systems with human and ecological health. Still, ecological approaches to healthy food systems have not garnered deep interest in mainstream institutions as the recent spate of reports by multilateral organizations demonstrates, despite their attempts to document the environmental impact of food systems.

Conversely, the notion of the 'obesity crisis' has had traction in the public discourse and has shaped policy (Bombak, 2014). The data show that a higher number of Canadians than ever before, as well as people in other countries, have an excess of what the medical literature refers to as 'adipose tissue,' or body fat (Wharton et al., 2020). The data also tell us that certain amounts of this tissue—called excessive adiposity—can render a person vulnerable to Type 2 diabetes, nonalcoholic fatty liver disease, as well as cancers of the colon, esophagus, and kidney among other ailments (Wharton et al., 2020). Certainly the connection between these health issues and the food system, including its governance, necessitates continued exploration (see Lang & Rayner, 2007). However, it is also important to consider that the medicalization of body size has been unpacked by many (including Bacon & Aphramor 2011; Bombak, 2014; Guthman, 2013). Bombak (2014) and Bacon and Aphramor (2011) in their reviews of the scientific literature argue that a person's metabolic health, rather than their appearance, is a better predictor of wellness. They advocate for a "health at every size" approach to focus health promotion on regular physical activity, healthy eating and the countering of fat stigma (Bomback, 2014; Bacon & Aphramor, 2011).

It is beyond the scope of this article to weigh in on debates about "health at every size" and the problematization of obesity as a crisis. I raise these critiques to draw attention to the ways that, as Guthman (2013) argues, the scientific apprehension of obesity is shaped by social values. One cannot separate out the medical data from the social worlds in which they are produced. For this reason, Patterson and Johnston (2012) suggest that obesity is a "hybrid construction" that is biophysical and that has socio-economic and cultural dimensions. One impact of the discourse is that the social construction of the 'obesity crisis' has shaped contemporary understandings of food and health. To start, the social construction of obesity stigmatizes those who are categorized as obese or overweight by casting them as unhealthy people who have a bad relationship with food (Cooper, 2010). As Brewis, Wutich, Falletta-Cowden, and Rodriguez-Soto (2011) found, this fat stigma, along with the prejudice it produces, is spreading around the world as a result of the globalization of these social norms around body type. Secondly, the obesity discourse has shaped contemporary understandings of food and health as it has merged with calls for food system change. In the food security discourse, the world is often described as being made up of the "stuffed and the starved" (Patel, 2013). This contrasts obesity with food insecurity, as if the two conditions are mutually exclusive. The data, however, show that people who are obese can also be food insecure (Stowers et al., 2020). Also, the obesity discourse has shaped health-based calls for food system change, such as in the EAT Lancet Report (2019) that points to body size as a reason for fixing food systems. But the social construction of obesity as a health crisis of the food system thus far has not led to structural change but rather has marginalized a group of people with fat stigma.

There is a stronger human health rationale for overhauling the food system: the health impacts of the industrialized food system on the ecological determinants of health. Here I use red meat to illustrate how the ecological determinants of health shift analysis when considering the health of a food, since red meat-the burger-is so often singled out as an unhealthy food that promotes obesity. Apply the ecological determinants of health to red meat and the problem identified is not some people's waistlines but rather the health of everyone. An EDoH approach evaluates the impact of the meat in question on ecological determinants of health, such as water systems and climate. In applying this concept, one would evaluate the impact on water systems of how the cattle were raised. Did the cows graze on irrigated pasture or was the grass rainfed? How was manure handled to prevent nutrient runoff from polluting water systems? In terms of climate, what is the greenhouse gas burden of the meat's production? An EDoH approach would judge the health impacts of the red meat based on the methane gas emitted in production, as well as carbon emissions along the production lifecycle of corn and other grain, typically fed to cattle in feedlots. Further, an EDoH approach would not consider all red meat equally, since livestock can be raised in different farming systems that have different environmental impacts (Broom, 2019). In this way, an EDoH analysis broadens an understanding of health impacts. By evaluating the healthiness of food based on these criteria, an EDoH approach does not separate human health from environmental degradation and rather sees human health as inextricably tied to the wellbeing of nonhuman nature. If a supposedly healthy food, like kale or quinoa, is produced in a way that damages the ecological determinants of health then the food is not in fact healthy. To reduce the environmental harm caused by the food system is to support human health.

The EDoH not only highlight how the health of all people is affected by food production systems, they also point to different solutions. As Guthman (2013) writes, focus on an 'obesity crisis' can "foreclose other problem conceptualizations and thereby affect [stet] the range of solutions" (p. 264). Tying food system crises to body size is a simplistic rationale that ignores complex sociopolitical and economic problems. Rather than limiting analysis to behavioural solutions that put the onus on the individual to eat better and trim up, the EDoH point to structural change in the food system in the name of health. To fix the parts of the food system that damage the EDoH requires the system itself to change, a critique common to the food systems literature. It is in this way that the language and rationale of the ecological determinants of health can help food and food systems studies to ground their critiques in health discourse and hopefully persuade policy makers, the health industry—as well as the authors of reports published by international multilateral organizations—that the impact of the food system on all our health is the best reason for change. This approach to food systems also raises many questions and opens numerous avenues for study. How might thinking about the ecological determinants of health contribute to a deeper understanding of equity in the food system? How might this lens inform understandings of supply chains, for example, and reconsider food prices, food waste, and other issues? Where these questions may lead is not yet known, however, I argue that an EDoH approach to assessing the healthiness of the food system can be a conceptual tool for food scholars looking to shape policy and practice and to push structural change that promotes the resiliency that is missing now in the food system.

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Who are the Cattails? Stories of Algonquin Anishinaabe Food Systems

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Narrative

Abstract

This narrative illustrates my evolving ontological and epistemological relations with food systems on Algonquin territory as an Algonquin woman and a registered dietitian. As dietitians, we study the function of food within our human bodies, but we are not often taught to think about the *who* behind our more-than-human food sources. Who are the living, diverse beings whom we consume (plants and animals included)? How do we take care of one another? Colonial and capitalist ways of relating to food have led humans to objectify and devalue the beings we consume; can we embody relational and reciprocal ways of being to heal our damaged food systems? This narrative explores these questions using two stories and reflective work based on my own experiences on a medicine walk and spending time with my relations.

Keywords: Algonquin; Indigenous; ontology; epistemology; food systems

Boozhoo. Kaitlyn nindizhinikaaz. Mattawa nindonjibaa. Portland endaayaan. My name is Kaitlyn and I am a mixed Mattawa/North Bay Algonquin First Nation woman with Algonquin and European ancestry currently living in Portland, Ontario on unceded Algonquin territory.¹ For this article about food systems on Algonquin land, I thought I would tell you a few stories. Storytelling is a critical methodology in many Indigenous cultures, through which knowledge, tradition, relationship, responsibility, and identity are transported across generations (Archibald, Lee-Morgan, & De Santolo, 2019; Thomas, 2015). Stories are told in a variety of ways including through song, dreams, oratory, and the land directly (Gehl, 2017; Kovach, 2009). Stories can also be memories of past relationships (with land, humans, and more-than-humans) and provide guidance for our future relations (Hampton, 1995; Kovach, 2010).

Storytelling is fundamentally relational and meaning is co-produced within the interconnections of storyteller, story, and listener/reader (Davidson, 2019). The process of sharing stories is not necessarily a linear event. Often, the significance of a story is left open for the reader to distinguish for themselves. Readers may take what they need and what they are prepared for at the time. In this way, storytelling is an empowering methodology because all stakeholders are engaged in the meaning-making process (Archibald, 2008). In this article, the stories I tell and the questions I pose are left open for each reader to consider for themselves.

My storytelling approach also incorporates the concept of Two-Eyed Seeing. Two-Eyed Seeing as a methodology involves weaving together Indigenous knowledges and ways of knowing with Western knowledge systems (Marsh, Cote-Meek, Toulouse, Najavits, & Young, 2015; Peltier, 2018). Two-Eyed Seeing acknowledges Indigenous knowledge as an autonomous entity and also recognizes the importance of bringing Indigenous and Western ways of knowing together for the benefit of all (Bartlett, Marshall, & Marshall, 2012). As I reflect on my life experiences, I attempt to reconcile Anishinaabe ontologies and epistemologies with my academic training as a registered dietitian in Canada (where these knowledge systems are not popularly incorporated or accepted). While I attempt to do this, I acknowledge that I am not a knowledge keeper, and therefore my qualifications for this task are limited. With that said, these processes of reflection have helped me question fundamental systems of knowledge within dietetics, as well as my role as an Anishinaabe-kwe dietitian going forward. As I critically reflect on my own motives and methods, others who are entangled in food systems may do so as well.

¹ You will notice that I use Ojibwe spelling (rather than Algonquin spelling) throughout this article. I do this because I did not learn Algonquin growing up and most of my Indigenous language instruction as an adult has been in Ojibwe

First, I want to begin by telling you about the medicine walk I went on this spring with my brother and my mother.

I fill my pack with medicines and secure it on my waist. My brother and mom are waiting for me. I place some cedar on my cast iron pan and light the smudge. The smoke rises and we wash ourselves. We had decided to go on a walk at my parents' house to see the marsh and to find some food and medicines along the way. My mom knows the land better than my brother and I— she has known the land longer and more intimately. As we walk over the stone bridge and into the first field, she calls out members of Tree Nation and identifies animal tracks and scat.

How long has she known how to do this? Where did she learn?

"I used to go out hunting with your Pépère when I was a kid. We would walk through the bush together and name trees and look at animal tracks. And your uncle and I would go out and check all the snares and we'd give whatever we got to our grandmother. And when I got older, I used to make meals for the whole family," my mother explains.

My brother brings a book along with him to help identify plants, but he rarely opens it along the walk. He touches the trees at the edge of the field, sees vines wrapped around them, and is happy to know that there will be grapes here in the fall. "We need to come back," my brother determines.

Why can't I find grapes on my own too?

"Kaitlyn, remember how I would spend summers with Pépère and our uncle?" My brother explains.

I put some tobacco down, and I say *thanks* and *see you soon* to the vines and we keep walking. My mom is trailing behind a bit, lingering on the treeline and looking down at the creek.

"The deer love it here," my mom says. There are raspberry bushes (sorry, raspberry *canes* as my mother lovingly corrects me) over by the bridge, and water from the creek runs gently towards the farm house next door. She points to the deer tracks and recognizes, "They've got a great place to live."

The ground goes soft under our boots as we approach the marsh. The marsh used to be a small lake where my brother once toured around on his fishing boat, but the beavers had clearly been at work upstream. As we arrive, I think about the last time we were all here together. I was just a kid—I don't even know how old. So much has happened since then and so much has changed—for me and for the land.

We weave through the cattails that surround the edge of the pond and head towards a few large rocks that line the water. We climb up and share some space on the rocks and look out over the marsh. The wind is calm today and the water lays still.

Do you know that big breath you take when you find yourself face-to-face with the land?

I stood and inhaled, felt my lungs fill, and my mind swell with memories. It was like sitting in a comfortable chair with a cozy blanket. It was slipping into a warm bath filled to the brim to cover your whole body. I felt completely full, whole, and finally home.

Suddenly my mom CLAPS her hands and breaks my gaze. She has been doing that throughout the entire walk. "Sorry... It's for the Bears. You have to let them know you're coming," she had explained the first time.

"Oh, Makwa, " I think to myself.

When we are ready to leave, we get down off the rocks and start back through the cattails. As we move, I say, "You know, I read this book—*Braiding Sweetgrass* by Robin Wall Kimmerer—that said you can eat cattails, and that they also have a gel substance inside similar to aloe vera that can help with bug bites and scratches."

My brother sighs, "Yeah, Kaitlyn, I know. I had some on my camping trip a few weeks ago."

I am behind the ball again. I don't bother telling him that I also looked up the nutrients in a cattail on the Canadian Nutrient File website—I have a feeling he will not be impressed by my knowing how many grams of carbohydrate are in a 100g portion of cattail root.

We reach the edge of the cattails and walk into the field. But I turn back. "Want to try harvesting one? I'd like to see how I can cook them in different ways. And if we like it, we can come back in the fall to harvest more." I lay some tobacco down again and my brother and I dig up a cattail.

As the three of us walk back toward the house—my mom clapping intermittently along the way—I wonder out loud, "How is it that I am a dietitian with a master's in nutrition, and yet I don't know how to identify grapes by looking at their vines? Shouldn't I know that it is called a raspberry *cane* and not a raspberry *bush*? Why can't I feel the trees and know their names? Why do I know the smoke point of *avocado oil* and not know how to cook a cattail from the land I've lived on my whole life?"

We walk back to my parents' house and part ways. On my drive home, I wrestle with these thoughts some more. It was a great trip to the marsh and I was fortunate to have the land and my family as teachers. However, I am also unpleasantly confronted by the fact that—surprise, surprise—I barely know anything about our food systems on Algonquin territory at all.

In my education as a dietitian, I understand why I needed to learn about the composition and "utility" of food—how to use it and how it helps our bodies. However, I failed to learn about the *who* behind our food sources. *Who* are the cattails? Who makes up their relations? Why are these relations crucial to their wellbeing? Instead of constantly asking myself (situated within my

position in dietetics), what can this "food" do for me/my body, I needed to shift to: what can I do for this being to ensure that our reciprocal relationship with one another is maintained? How do we take care of one another? I needed to go back to the beginning, and in my mind, the core of an Algonquin food system is fundamentally structured by the relations that comprise the system. So, let's start there.

As an Algonquin Anishinaabe-kwe, I am moving forward on the basis that our realities are produced through our relations with all that surround us; we have a relationship with every human and more-than-human body that exists, and these relationships produce a cosmos that is shared with all of Creation (Wilson, 2008). All of Creation is equal and dependent on one another, though Anishinaabeg acknowledge that humans were created last and have a lot to learn from our environment (Gehl, 2017; Kovach, 2009; Sherman, 2008). Ultimately, the purpose of gaining knowledge is to shape us as individuals within a larger collective in order to live in harmony with all of Creation (Sherman, 2008).

Though I understand food systems as more complex than sharp binaries (e.g., good vs. bad; entirely local vs. fully industrialized), it is clear that we have moved away from the foundations of Algonquin relationality and reciprocity within our food systems today. Colonial and capitalist principles have shaped modern food systems so that food is unsustainably extracted, commodified, exploited, and subjected to inequitable distribution within the free market (Suschnigg, 2012). Food (which I understand to be the living beings whom we eat—animals and plants included) is morphed into an object to dominate and control for the purpose of incurring power and wealth for elite groups. Even popularly referring to these beings as "food" supports this objectification. Food becomes "it" rather than "they," thereby ignoring their living, diverse, multiple bodies. In this process, the animation of those whom we eat—their spirit and interdependent life—is diminished along with our love and respect for them. I think we once knew the cattails. I think we once loved the cattails. But I think we have forgotten.

Let me tell you one more story.

I grab my lawn chair, book, and a thermos of coffee and start my walk towards the lake. I live a few blocks from the park in town that overlooks the water. The park is deserted this morning (as it is every morning I come). I untuck my book from under my arm and I set my things down under the old maple tree that offers some company by the lake. The maple's grey, reaching limbs extend over me and shade me from the sun and heat (which are already making me uncomfortable at nine o'clock this morning). Earlier in the season, I used to sit on the grassy bank and slip my feet in the cool, refreshing water below. Now the water level has dropped, revealing a line of rocks and sand along the shoreline; my toes can't quite reach anymore.

I unfold my chair and place my thermos beside me. I feel the soft ground give a little as the pegs of my chair push into the grass when I sit down. I crack open my book. After our

medicine walk, I have been working my way through book after book about Indigenous methodologies, histories, ceremonies, storywork, plants, and more. I am desperate to answer one fundamental question: *How do I remember*? How do I come to know my relations once more? How do I learn about the ontologies and epistemologies that I have forgotten? How do these become my new ways of seeing the world and the food systems in which I am embedded? Is it possible to reconcile my knowledge of 'food' within dietetics with Algonquin understandings of land and our more-than-human relations? By weaving together complementary (and often contradictory) knowledges, experiences, and views, perhaps I can fulfill my responsibilities as an Indigenous dietitian within the profession and within our complex food systems (Peltier, 2018). Ultimately, the question becomes: how do I, as a dietitian and an Anishinaabe-kwe, embody relationality and reciprocity in everyday life, professional practice, and with all my relations? *How do I remember*?

I sip my coffee and exhale. Taking a break from the page, I look up at the water. There are no boats yet this morning, I have come down too early for that. The only exception I see is a man who is kneeling in an overpacked canoe. Its sides are only inches from the surface of the lake, at risk of taking on water and submerging the whole vehicle. I release my grip on the arms of my folding chair as the man and his canoe finally reach safety on a dock nearby. I exhale again.

The water is fairly calm today—pretty good for the Big Rideau. But as I take in the beauty of the lake, with its complex curves, clarity, juts, and weeds, I feel the wind pick up and sweep over my shoulders and face. I hear something shuffle in the wind beside me. I turn and notice a familiar friend. Cattails sway in the breeze, waving hello as they defend the shoreline.

"Boozhoo Apakweshkwayag (Cattails). Kaitlyn nindizhinikaaz. It's nice to meet you."

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La Revue canadienne des études sur l'alimentation

Original Research Article

Une approche territorialisée du système alimentaire: Le cas de la grande région de Québec

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Abstract

De 2016 à 2019, une recherche collaborative impliquant des universitaires et des organisations partenaires a permis de caractériser le système alimentaire de la région de Québec. Cet article propose une analyse qui rend compte de la complexité de ce dernier. L'étude repose sur une approche territorialisée du système alimentaire. Celle-ci s'intéresse à toutes les modalités de production et d'échange qui contribuent à nourrir les habitantes et les habitants d'une région, qu'elles s'inscrivent dans des logiques marchandes ou non marchandes. Les résultats présentés révèlent qu'un grand nombre d'acteurs aux logiques divergentes interviennent, à différentes échelles territoriales, au sein d'un système alimentaire régional comme celui de Québec. Néanmoins, leurs activités s'inscrivent dans des circuits qui s'entrecroisent. L'approche déployée permet d'éviter les classements à grands traits entre système « conventionnel » et « alternatif » et facilite la reconnaissance de différentes logiques d'action ainsi que des contraintes structurelles et des rapports de pouvoir au sein desquels opèrent les acteurs. Au final, le recours à une approche territorialisée du système alimentaire, de même que la prise en compte des activités marchandes et non marchandes qui en sont constitutives, a permis d'analyser et de rendre certaines réalités régionales plus visibles et plus intelligibles pour les partenaires du projet.

Keywords: Québec; système alimentaire; recherche collaborative; approche territorialisée

Introduction

Entre 2016 et 2019, une recherche collaborative¹ impliquant des universitaires et des organisations partenaires a été réalisée dans le but de caractériser le système alimentaire de la grande région de Québec. Dans l'article qui suit, les résultats issus de cette étude sont mobilisés de manière à mettre en lumière, à partir du cas de Québec, l'aspect multiforme et la complexité des systèmes alimentaires en proposant une approche territorialisée de ces derniers. Une telle approche s'intéresse à l'ensemble des acteurs et des processus impliqués, peu importe qu'ils soient insérés dans des activités considérées comme étant « alternatives » ou plus « conventionnelles ». L'adoption d'une perspective territoriale sur les systèmes alimentaires favorise aussi l'identification de points d'intersection et de friction entre les acteurs et les processus qui en sont constitutifs.

L'intention de cet article est triple : 1) rendre compte des travaux menés sur le système alimentaire de Québec dans le cadre de la recherche partenariale mentionnée précédemment ; 2) identifier les différents modèles de production et d'échange qui coexistent au sein de ce système alimentaire ; 3) montrer en quoi une approche territorialisée des systèmes alimentaires permet d'exposer les réalités régionales de manière nuancée et critique.

Dans la première partie de l'article, nous exposons le cadre théorique adopté. Après avoir défini la notion de système alimentaire et introduit l'approche territorialisée que nous en proposons, nous distinguons, en nous reposant sur Fournier et Touzard (2017), différents modèles de production et d'échange alimentaire : domestique, de proximité, de qualité différenciée, de commodités et industriel. Nous présentons ensuite, dans une deuxième partie, la démarche réalisée avec les partenaires, ainsi que la méthodologie de recherche déployée pour l'étude du système alimentaire de la région de Québec. Dans la troisième et dernière partie de l'article, nous montrons à quoi correspondent, sur le terrain, les différents modèles proposés par Fournier et Touzard (2017) et analysons les relations entre acteurs et dispositifs alimentaires dans la région d'étude.

Perspective théorique sur le système alimentaire

La notion de système alimentaire retenue dans le cadre de notre recherche englobe « (...) tous les facteurs impliqués dans la production alimentaire, la transformation, la distribution, l'entreposage, la consommation et la gestion des déchets » ainsi que les produits (intrants et

¹ Le projet de recherche en question s'intitule « Vers une alimentation territorialisée et durable : une recherche participative pour comprendre le système alimentaire de Québec ». Il a bénéficié d'une subvention dans le cadre du programme *Développement de partenariats* du Conseil de recherches en sciences humaines du Canada. L'Université Laval a également contribué. La Caisse d'Économie solidaire Desjardins a financé le développement du site web du projet (<u>www.systemealimentairequebec.info</u>).

extrants), les acteurs (producteurs, transformateurs, distributeurs, grossistes, consommateurs, régulateurs) et les modes de coordination mobilisés (par le marché, les standards ou l'État) (Mundler & Criner, 2016, p. 77; notre traduction). Partant de là, ainsi que d'une perspective anthropologique de l'économie, définie comme étant « l'interaction entre l'homme (sic) et son environnement, naturel et social, interaction qui lui fournit les moyens de satisfaire ses besoins matériels » (Polanyi 1974, 153), nous considérons comme constitutives du système alimentaire des activités réalisées selon des modalités marchandes et non marchandes de production et d'échange. Dans les premières, la nourriture est produite et circule en tant que marchandise; elle représente, essentiellement, un objet de commerce. Dans les secondes, la production prend la forme de l'autoproduction alors que l'échange s'y effectue par le biais du don et de la redistribution. Les aliments circulent entre des personnes ou au sein de groupes qui entretiennent des liens familiaux, amicaux ou communautaires. Inclusive, notre approche permet de rendre compte de l'ensemble des activités qui contribuent à nourrir les habitantes et habitants d'un territoire donné.

Par ailleurs, nous privilégions une approche territorialisée du système alimentaire, semblable à celle dite des *city-region food systems* (Jennings et al., 2015, cités dans Blay-Palmer et al., 2018, p. 3). La notion de *city-region food system* invite à réfléchir aux moyens de mettre en place des systèmes alimentaires durables sur des territoires qui incluent un centre urbain ainsi que les zones péri-urbaines et l'arrière-pays rural qui l'entourent, formant ainsi un ensemble régional.

Ainsi défini, le système alimentaire implique un grand nombre d'acteurs aux logiques parfois divergentes, qui interviennent à différentes échelles territoriales. Pour faciliter l'analyse de cette diversité, Fournier et Touzard (2017) distinguent cinq modèles de production et d'échange: le modèle domestique, le modèle de proximité, le modèle de qualité différenciée, le modèle de commodités et le modèle agro-industriel. Dans le modèle domestique, « la consommation se fait au niveau de l'unité de production. La production et la transformation sont assurées par des unités familiales, ou parfois d'autres formes collectives ; les excédents peuvent être échangés localement » (Fournier et Touzard, 2017, p. 142). Le modèle de proximité, pour sa part, se caractérise par un « faible nombre d'intermédiaires entre les producteurs et les consommateurs (circuits courts, vente directe) et une proximité géographique importante entre les zones de production et de consommation des produits ». Le modèle de commodités « permet l'échange de produits vivriers sur de moyennes distances (100 à 1 000 km) grâce à des filières " traditionnelles " fortement intermédiées (producteurs, collecteurs, grossistes, transformateurs artisanaux ou semi-industriels, détaillants) ». Le modèle agro-industriel repose quant à lui sur « (...) une logique fondamentale de maximisation du profit des agro-industriels et des distributeurs grâce au développement des économies d'échelle », la standardisation des produits, une production de masse, l'offre d'aliments à prix réduits, la spécialisation des activités et la mondialisation des échanges. Enfin, le modèle de qualité différenciée correspond à « une logique fondamentale de différenciation des produits au sein de filières intermédiées », différenciation liée à l'origine des produits ou au fait que ceux-ci soient issus de pratiques respectueuses de

l'environnement ou associés à une éthique particulière (Fournier et Touzard, 2017, p. 142). Les auteurs précisent que plusieurs de ces modèles peuvent cohabiter sur un même territoire. Qu'en est-il dans la grande région de Québec? Quelle importance y revêt, le cas échéant, chacun de ces modèles? Jusqu'à quel point sont-ils compatibles? Certains acteurs sont-ils liés à un modèle spécifique, à l'exclusion des autres? Avant de présenter certains constats saillants de notre étude offrant des éléments de réponse à ces questions, nous expliquons dans la prochaine section de l'article comment a pris forme la recherche collaborative menée dans la région de Québec de même que les principales balises organisationnelles et méthodologiques qui ont guidé sa réalisation.

Démarche et méthodologie d'une recherche collaborative

Le projet de recherche dont est issu cet article est un partenariat entre une équipe interdisciplinaire de recherche de l'Université Laval² et 14 organismes gouvernementaux et non gouvernementaux. Réunies à l'occasion d'une activité de maillage et de concertation régionale ayant pour thème l'alimentation durable, en septembre 2015, une trentaine de personnes en ont jeté les bases. Celles-ci connaissaient bien, pour y être impliquées au quotidien, certaines composantes spécifiques du système alimentaire régional, mais elles étaient moins familières avec d'autres maillons du système. Savoir comment ces composantes sont structurées est alors apparu comme une étape préalable à l'identification de buts à fixer et d'actions à poser pour assurer une plus grande durabilité environnementale, économique et sociale du système alimentaire de Québec et sa région. Une question de recherche générale, formulée avec les personnes participantes, a émané de cette rencontre : « Comment le système alimentaire est-il organisé dans et autour de la Communauté métropolitaine de Québec? » Elle se déclinait en un ensemble de sous-questions associées aux cinq maillons du système alimentaire (production, transformation, distribution, consommation, gestion des matières résiduelles), à leur articulation et aux acteurs, processus, aménagements territoriaux et cadres réglementaires qui le constituent.³

À partir de mai 2016, l'équipe du projet a mené une recherche collaborative, au sens que lui donne Bonny (2017),⁴ afin d'appréhender le système alimentaire dans la « grande région de

² En sus des auteurs de cet article, une douzaine d'étudiantes et étudiants en anthropologie, agroéconomie, design urbain, droit et nutrition, ainsi qu'une professionnelle de recherche ont pris part à l'équipe.

³ Ces questions étaient: Quels aliments produit-on et mange-t-on sur ce territoire? Quelle part de cette production est consommée dans la région? Quelle distance les aliments parcourent-ils? Comment la distribution est-elle organisée? Où et comment les résidents s'approvisionnent-ils? Quelles sont les perceptions des consommateurs à l'égard des aliments disponibles? Qui sont les fournisseurs des commerces alimentaires? Quelles entreprises conditionnent ou transforment les aliments frais? Quels sont les politiques et documents de planification officiels, de même que les cadres réglementaires qui influencent, actuellement, la structuration et le fonctionnement de ce système alimentaire? Que fait-on des déchets qui sont générés?

⁴ Dans sa typologie des recherches partenariales participatives, Yves Bonny définit la *recherche collaborative* comme « une forme de recherche partenariale participative s'inscrivant de façon centrale sous l'égide du référentiel scientifique et mettant au premier plan de la dynamique collective la production de connaissances objectives par les

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Québec ». Cette dernière comprend la Communauté métropolitaine de Québec (CMQ), considérée comme bassin de consommation pour les fins de l'étude, ainsi que les régions administratives de la Capitale-Nationale et Chaudière-Appalaches qui, ensemble, constituent un bassin de production de proximité. Ce dernier compte 1 160 000 habitants, 308 000 hectares de terres agricoles et près de 7000 exploitations agricoles (StatCan, 2016a). La CMQ regroupe quant à elle 28 municipalités, 800 000 habitants, soit 10 % de la population du Québec, sur 3 340 km² en territoire municipalisé et sur près de 9 500 km² si on ajoute les territoires non organisés.

Figure 1 : Le territoire à l'étude



Projet REPSAQ

Bassin de production Bassin de consommation (CMQ)

Territoire hors de l'étude Régions administratives

Chemin de fer

Voles majeures
 Topographie
 Écoumène potentie
 Hydrographie

Municipalités régionales de comtés (MRC)

100 km

Les partenaires du projet jouent des rôles diversifiés au sein du système alimentaire régional. On y trouve des organismes étatiques dont la mission concerne l'aménagement et la gestion d'un territoire, soit la CMQ et les municipalités régionales de comté (MRC) de la Côte-de-Beaupré et de la Jacques-Cartier. L'État y est aussi présent via le ministère de l'Agriculture, des pêcheries et de l'alimentation du Québec (MAPAQ). Y participent, par ailleurs, la branche régionale de l'Union des producteurs agricoles (UPA Capitale-Nationale-Côte-Nord) ainsi qu'une coopérative

chercheurs professionnels » (2017, p. 28). Cette forme de recherche implique une collaboration étroite entre praticiens et chercheurs tant en amont qu'en aval de la recherche. Les praticiens collaborent activement au processus de recherche et interviennent selon diverses modalités dans la définition des questions ou dans l'animation et le suivi du dispositif de recherche, sans pour autant être considérés comme des « co-chercheurs », contrairement à d'autres formes de recherche participative.
en production et mise en marché de produits maraichers, la Coopérative pour une agriculture de proximité écologique (CAPÉ). Enfin, s'y retrouvent plusieurs organismes à but non lucratif. Certains contribuent directement à l'un ou l'autre des maillons du système alimentaire (Marché de proximité de Québec, Moisson Québec). D'autres mènent des activités connexes. Elles ont trait au développement de la filière bioalimentaire (Table agroalimentaire de Chaudière-Appalaches - TACA), à l'accompagnement des collectivités (Vivre en ville), au plaidoyer (Conseil régional de l'environnement - CRÉ), à la sensibilisation du public (AmiEs de la Terre de Québec) et au transfert des connaissances (Centre de Référence en Agriculture et Agroalimentaire du Québec - CRAAQ). Près de la moitié de ces organismes (ATQ, MPQ, Vivre en ville, CAPÉ, Moisson Québec, CRÉ) cherchent à favoriser la transition vers un système alimentaire plus durable sur le plan environnemental, économique ou social.

Six des quatorze organismes partenaires du projet ont pris part à un comité d'orientation rassemblant partenaires et chercheurs.⁵ Ce comité s'est réuni de trois à quatre fois par année pendant la durée du projet. À l'automne 2017 et 2018, une rencontre de l'ensemble des partenaires a eu lieu et en 2019, un forum régional a permis de divulguer les principaux résultats de la recherche à plus de 130 participantes et participants issus d'organismes du milieu.



Figure 2 : Les étapes de la démarche

⁵ Il s'agit de la CMQ, du MAPAQ, de la TACA, de Vivre en Ville, des AmiEs de la Terre de Québec et du Marché de Proximité de Québec.

Plusieurs essais (Delucinge, 2018; Legault, 2018) et mémoires (Des Roberts, 2018; Fortier 2019), de même qu'un rapport (Bach, 2019) ont été réalisés, dans le cadre du projet, par des étudiantes et étudiants de 2^e et de 3^e cycle de l'Université Laval. Ils ont mobilisé des méthodes de cueillette et d'analyse de données propres à leur discipline pour aborder des problématiques spécifiques liées aux questions soulevées par les partenaires. Par ailleurs, trente entretiens semi-directifs ont été menés sur une base individuelle avec des acteurs de la transformation et de la distribution alimentaire afin de mieux comprendre l'organisation de ces maillons. Une banque de données élaborée à partir de différentes sources a permis d'en faire un portrait chiffré et de les cartographier. En outre, une dizaine d'initiatives issues du milieu communautaire ont fait l'objet de courtes monographies. Enfin, l'équipe a compilé des données secondaires, quantitatives en bonne partie et ayant trait à chacun des maillons du système alimentaire, qu'elles soient issues du milieu académique, gouvernemental ou communautaire. Au final, les résultats de l'ensemble de ces travaux ont été mis en commun dans un rapport de recherche qui dresse le portrait du système alimentaire régional de Québec.⁶

Afin de pouvoir pousser certaines analyses, l'équipe de recherche, en collaboration avec les partenaires du projet, a ciblé un certain nombre d'aliments souvent consommés et produits dans la région ou ayant le potentiel de l'être. En plus des critères précités, leur choix s'est appuyé sur le panier du dispensaire diététique de Montréal (Dispensaire diététique de Montréal, 2016), qui propose une liste d'une soixantaine d'aliments abordables pouvant constituer la base d'une alimentation qui permet de satisfaire les besoins nutritionnels fondamentaux. Les aliments retenus appartiennent aux quatre groupes identifiés par le Guide alimentaire canadien (version 2009) : légumes et fruits (bleuet, fraise, pomme, carotte, courge, maïs sucré, ail, pomme de terre, tomate, pousses et germinations), produits céréaliers (farine de blé entier, gruau rapide, pain de blé entier, pâtes alimentaires), lait et substituts (lait, cheddar, yogourt nature), viandes et substituts (bœuf, porc, poulet, œufs de poulet, légumineuses ou soja), ainsi que des sources de matières grasses (beurre salé, huile de tournesol) et de sucres ajoutés (miel).

Du modèle agro-industriel au modèle domestique : Portrait du système alimentaire de la région de Québec

Dans les pages qui suivent, nous présentons certains constats saillants issus de notre étude sur le système alimentaire de la région de Québec, en référant aux modèles de production et d'échange mentionnés précédemment.

⁶ Le rapport est intitulé *Vers une alimentation territorialisée et durable. Le système alimentaire de la grande région de Québec, de la production agricole à la gestion des résidus : enjeux, questions, portrait.* <u>https://www.systemealimentairequebec.info/sites/systemealimentairequebec.info/files/RAPPORT%20REPSAQ_201</u> <u>9_erratumD26.pdf</u>

Les modèles agro-industriels et de commodités, au cœur de la distribution alimentaire

Dans la région à l'étude, les modèles agro-industriels et de commodités sont bien présents. Il n'est pas toujours aisé de les distinguer, mais on peut souligner par exemple que certaines productions animales comme les bovins laitiers et la volaille sont soumises à la gestion de l'offre et sont donc destinées à alimenter la demande intérieure de la province d'abord et du reste du Canada ensuite. Ces filières penchent vers le modèle des commodités. Il en est tout autrement de la production porcine, qui est résolument tournée vers l'exportation et le modèle agro-industriel. Ainsi, il se produit dans le territoire à l'étude presque dix fois plus de porcs que ce que représente la consommation locale (Des Roberts, 2018).

La distribution alimentaire paraît de son côté très concentrée. En effet, la majeure partie des aliments qui sont consommés sur le territoire transitent par les circuits des grands distributeurs-détaillants, des entreprises qui prennent en charge à la fois la distribution de gros et la vente au détail. Au Québec, Loblaw, Sobeys et Métro sont les trois plus importants. Chacun détient plusieurs enseignes ; elles correspondent à des magasins de différentes superficies, qui visent des segments de marché distincts. Par exemple, Marché Richelieu, qui appartient à Métro, une entreprise québécoise, est une enseigne utilisée pour les épiceries de proximité qui desservent une clientèle de voisinage, en milieu urbain. Ces commerces disposent de surfaces relativement réduites, mais offrent une gamme de produits presque aussi large que les supermarchés. Les magasins à escompte de la même chaine, qui portent l'enseigne Super C, se caractérisent par une gamme de produits alimentaires plus restreinte et des prix moins élevés. À eux seuls, les trois grands distributeurs-détaillants concentrent les deux tiers des ventes en épicerie au Québec (MAPAQ, 2017). Toutefois, les établissements qui offrent des articles divers (Costco, Walmart, Dollarama) occupent une part croissante du marché et les pharmacies vendent de plus en plus de produits alimentaires.⁷

Si les magasins d'alimentation affiliés aux grandes chaines sont les avatars du modèle agro-industriel, il faut éviter de tenir pour acquis qu'ils recourent exclusivement à des circuits longs impliquant un nombre élevé d'intermédiaires et que tous les aliments qu'on y trouve parcourent de grandes distances. Dans le cadre du projet, un examen minutieux des pratiques d'approvisionnement d'un échantillon diversifié de quinze commerces alimentaires localisés dans la CMQ, pour cinq aliments de consommation courante parmi ceux identifiés précédemment (fraise, pomme, maïs en épi, tomate et pomme de terre) a révélé que malgré les contraintes auxquelles font face les détaillants affiliés à des chaines eu égard aux pourcentages élevés de leur stock qui doit être commandé à leur distributeur assigné, plusieurs commerces,

⁷ À ce sujet, certaines enseignes appartiennent aux grandes chaines d'alimentation. Par exemple, Loblaw est propriétaire de Pharmaprix depuis 2003, tandis que Jean Coutu et Brunet appartiennent à Métro.

même parmi les affiliés, s'approvisionnent directement auprès de producteurs québécois ou régionaux, surtout en saison (Delucinge, 2018). L'étude montre aussi qu'un approvisionnement centralisé qui passe par un distributeur localisé à Montréal, à quelque 250 kilomètres de Québec, n'implique pas nécessairement une provenance étrangère. En effet, des aliments produits dans la région de Québec transitent parfois par Montréal avant de se retrouver dans les commerces de la CMQ. C'est le cas des pommes produites dans des vergers de la région, mais entreposées puis mises en sac par des producteurs localisés en Montérégie, qui agissent également comme emballeurs. Autrement dit, les commerces de détail typiques du modèle agro-industriel recourent à des circuits longs et courts de distribution; s'ils n'ont pas comme objectif premier la mise en marché de produits locaux, ils contribuent tout de même à l'offre de ces derniers.

Du côté de l'approvisionnement des ménages, des données recueillies en 2011 auprès d'un échantillon de plus de 2 500 personnes et représentatif de la population de la CMQ montrent que les épiceries (supermarchés, épiceries de proximité et magasins à escompte) y constituent, sans conteste, le type de commerces alimentaires le plus fréquenté, et de loin : neuf personnes sur dix (89 %) les visitent au moins une fois par semaine et une sur deux (51 %), plusieurs fois par semaine. À l'inverse, plus des trois quarts (82 %) des habitantes et habitants de la CMQ n'achètent jamais d'aliments dans des structures « alternatives » (coopératives alimentaires, paniers bios, point de vente chez l'agriculteur). Leur fréquentation demeure marginale. Une personne sur quatre (27 %) dit fréquenter un marché public au moins une fois par mois, et 70 % au moins une fois par année, alors que 30 % de la population n'y met jamais les pieds (Boulianne et al., 2019, p. C6).

En adéquation avec ces résultats, l'analyse des données d'une autre enquête portant cette fois sur l'approvisionnement et la consommation d'aliments locaux, menée auprès de 299 résidents de la CMQ, arrive aux mêmes constats. En référence à onze produits retenus pour cette étude,⁸ les résultats illustrent un recours peu fréquent aux circuits courts de distribution alimentaire ainsi qu'une faible consommation d'aliments produits dans la région ou la province de Québec (Fortier, 2019).

Le modèle de proximité basé sur une « promesse de différence »

On reproche souvent au modèle agro-industriel de contribuer à la déterritorialisation de l'alimentation. Certains produits qui en sont issus parcourent des milliers de kilomètres entre le champ et l'assiette, générant des gaz à effet de serre. Leurs bas prix les font entrer en compétition avec des productions plus locales, ce qui contribue à dévitaliser les agricultures régionales, surtout là où l'on cultive sur de petites surfaces. On relève aussi le caractère souvent anonyme des aliments issus de l'agro-industrie (McMichael, 2009 ; Van der Ploeg, 2010).

⁸ Ces aliments sont les suivants : pomme, petit fruit, carotte, tomate, haricot, laitue, épi de maïs sous forme fraiche; pain, œuf frais, viande de porc fraiche ou transformée, miel.

Les structures qui correspondent au modèle de proximité (vente directe à la ferme ou en kiosque, marchés fermiers, marchés virtuels, systèmes de paniers, ateliers de fabrication artisanale jouxtés à des commerces de proximité tels que des boulangeries ou des fromageries, par exemple) proposent une solution de rechange à cet état de fait.

La vente directe à la ferme représente le mode de mise en marché en circuit court le plus prisé, dans la région, par les producteurs agricoles. Il est aussi très ancien. De nos jours, un tiers des fermes localisées dans la région administrative de la Capitale-Nationale⁹ écoulent ainsi une partie de leur production; la proportion descend à 18% en Chaudière-Appalaches, où dominent les productions animales. Par ailleurs, en 2016, 18 fermes maraichères certifiées biologiques de la Capitale-Nationale et 39 de Chaudière-Appalaches distribuaient au moins une partie de leur production via des paniers d'aliments, dans le cadre du réseau des Fermiers de famille mis en place en 1996 par Équiterre (StatCan, 2016), dans différents points de chute localisés surtout en zone urbaine et péri-urbaine et desservant chacun plusieurs dizaines de ménages. En 2018, on dénombrait aussi 26 marchés publics sur le territoire du bassin de production de proximité, auxquels participaient 220 fermes, soit 9% de celles localisées dans la Capitale-Nationale et 3% des fermes de Chaudière-Appalaches. Deux marchés virtuels (en ligne) permettaient à leur clientèle de s'approvisionner directement auprès de fermes et de transformateurs et on trouvait, seulement sur le territoire de la CMQ, environ 80 commerces de proximité.

Certains des dispositifs mentionnés s'inscrivent dans une dynamique de contestation du modèle agro-industriel dominant. C'est le cas, notamment, du Marché de proximité de Québec (MPQ), un organisme à but non lucratif mis sur pied en 2007 dans le but de favoriser une agriculture locale, équitable et plus durable (que l'agriculture industrielle) sur les plans écologique, environnemental, social et politique (Laviolette & Boulianne, 2016). Les adhérents peuvent y commander, sur une base hebdomadaire et grâce à une plate-forme en ligne, des aliments offerts par les producteurs membres, des agriculteurs et des transformateurs opérant une ferme ou une microentreprise familiale pour la plupart d'entre eux. S'ils disposent pour plusieurs d'une certification biologique, le Marché n'en fait pas un critère absolu. Pour leur part, les magasins spécialisés (fromageries, boulangeries, etc.) ne diffèrent en rien, à première vue, des autres commerces alimentaires ayant pignon sur rue. Plusieurs de ces entreprises ont néanmoins pour mission explicite de promouvoir les productions régionales ou artisanales et favorisent la mise en marché en circuit court.

Les modalités de mise en marché en circuit court sont toutes porteuses d'une « promesse de différence » (Le Velly, 2017); *a minima*, celle de faciliter une (re)connexion entre consommateurs et producteurs (Kneafsey et al., 2008) ou entre consommateurs, activité agricole et « nature », comme dans l'autocueillette de petits fruits, par exemple. Cette promesse de différence est parfois fortement affirmée, revendiquée même ; mais ce n'est pas toujours le cas. Dans certaines structures, elle s'étend aux méthodes de production, dites écoresponsables, comme l'agroécologie ou l'agriculture biologique ou biodynamique. C'est le cas de l'agriculture

⁹ En 2017, il s'agissait de 324 des 971 fermes de cette région administrative.

soutenue par la communauté (ASC), avec les « paniers bio ». C'est aussi celui du Marché de proximité de Québec (MPQ), déjà mentionné précédemment. En effet, cet organisme insiste constamment dans sa production discursive sur ce qui contribue à le dissocier du modèle agroindustriel. Par exemple, on v met en relief le fait que le Marché « offre un accès direct à des aliments produits localement », qu'il s'agit de « produits frais, de qualité, cultivés écologiquement et localement, et ce, à un juste prix pour tous », en respectant les contraintes que posent les changements de saison. Au-delà de son offre alimentaire, le MPQ vise aussi à ce que les « adhérents puissent se sensibiliser et se mobiliser face aux grands enjeux agricoles, alimentaires, écologiques ou encore, de santé » et soutient que pour les producteurs membres, « le MPQ n'est pas qu'un simple outil de mise en marché, il est aussi un espace de solidarité créant un lien direct avec les dégustateurs de leur travail. Il favorise donc les relations directes entre adhérents et producteurs, que ce soit par des rencontres et des dégustations au point de chute ou encore par des ateliers, des visites et des journées d'entraide à la ferme » (MPQ, 2020). Ainsi, d'entrée de jeu, le MPQ se définit comme « alternatif » sur les plans de sa mission (à plusieurs volets), de sa gouvernance interne (de type OBNL, avec fixation des prix par les producteurs et application de principes visant à éviter que ne s'établisse une compétition entre eux), du lien préconisé avec les petites entreprises qui sont ses fournisseurs, de son autofinancement à 100% (affirmation d'autonomie) et de la place essentielle qu'y occupent les bénévoles (Laviolette & Boulianne, 2016).

Dans les marchés publics (ou fermiers), la promesse de différence concerne la provenance (locale) des produits qui y circulent, la possibilité (dans certains cas) de rencontrer les producteurs ainsi que l'ambiance conviviale (Bergeron, 1993) que l'on y retrouve. Bien qu'ils soient fréquentés par certains producteurs et productrices biologiques, ces marchés n'affichent pas de détermination à favoriser la vente d'aliments cultivés sous régie biologique ou selon des principes agroécologiques, ni par des entreprises de petite taille.

Par ailleurs, alors que le système de paniers et les marchés de solidarité régionale comme le Marché de proximité de Québec ont vu le jour en 1996 et en 2006, respectivement, au Québec, les marchés publics ont déjà une longue histoire. Dès le 17^e siècle, sous le régime français, les villes ont créé et réglementé les places de marché et ont fait ériger des halles (Bergeron, 1993, p. 3). Leur cas est intéressant pour illustrer les tribulations que connaissent certaines modalités d'échange au fil du temps, ce qui fait qu'elles peuvent sembler nouvelles alors qu'elles existent en fait depuis des décennies, voire des siècles. À Québec, le marché de la Place royale, inauguré en 1640, a perduré jusqu'en 1889 (Mercier, 2003). Une dizaine d'autres marchés, desservant différents quartiers, y ont coexisté au cours du 19^e siècle (Bergeron, 1993). À partir de 1910, les fermetures se sont multipliées à la suite d'incendies et sous la pression de nouvelles règles sanitaires, si bien qu'au début des années 1970, il ne restait qu'un seul marché en fonction, le marché St-Roch, localisé dans la basse-ville (Ville de Québec, 2013). Celui-ci a dû changer de site à deux reprises au cours des années qui ont suivi, alors que le centre-ville faisait l'objet d'importants réaménagements urbanistiques. En 1987, il était définitivement fermé, au profit d'un nouveau marché localisé ailleurs, ouvert à l'année et visant une clientèle touristique : le

marché du Vieux-Port. Entre-temps, en 1976, un autre marché saisonnier, représentatif d'une revitalisation qui allait s'étendre au cours des années 1990 et 2000, voyait le jour, cette fois dans un quartier de banlieue, Sainte-Foy. Puis, dans les années 2010, à l'initiative de citadins, des marchés éphémères qui n'opèrent que quelques week-ends par été ont fait leur apparition sur la voie publique ou dans des parcs des quartiers centraux de la ville. Ceux-ci ont pour objectif de bonifier l'offre d'aliments frais, sains et locaux pour leurs résidentes et résidents (Proteau, 2018). Dernier évènement en date, la Ville de Québec a choisi de relocaliser les marchands du Vieux-Port dans un bâtiment neuf situé dans un quartier résidentiel de Québec afin de créer le Grand Marché de Québec, qui a ouvert ses portes en 2019. Il offre, outre les habituels stands de produits vendus par les producteurs, d'autres services tels que des ateliers culinaires éducatifs et des camps de jour pour les jeunes, des vitrines technologiques pour faire rayonner la science et l'innovation ainsi qu'un incubateur agroalimentaire qui vise à accompagner les nouvelles entreprises du domaine agroalimentaire.

Les marchés publics constituent, on le voit bien, une modalité de mise en marché qui s'est renouvelée avec le temps, « en parallèle du développement du modèle agro-industriel » (Fournier & Touzard, 2017, p. 139). Si, dans leur version la plus récente, ils portent parfois un discours critique du système alimentaire « conventionnel » (Lefèvre & Audet, 2016; 2018), ce n'est pas nécessairement le cas dans leur version d'origine. Ainsi, un certain recul historique permet de constater que les innovations résultent parfois de la réactivation de structures qui ont été instituées dans un contexte social et politique donné puis marginalisées pendant un certain temps pour ressurgir ensuite sous des formes, mais surtout dans des circonstances différentes et avec des significations nouvelles.

Le modèle de qualité différenciée, entre localisation et globalisation

Dans la région à l'étude, on trouve aussi des initiatives qui relèvent du modèle de qualité différenciée. Elles recourent à des appellations réservées, des marques commerciales et des marques territoriales pour mettre en valeur l'origine ou une autre qualité d'un produit. Au Québec, le Conseil des appellations réservées et des termes valorisants (CARTV) est l'organisme responsable des systèmes de reconnaissance et de certification des produits distinctifs (CARTV, 2019). Les appellations en vigueur ont trait au mode de production (biologique), au lien avec un terroir déterminé (l'appellation d'origine ou l'indication géographique protégée) ou à une autre particularité, comme les spécificités traditionnelles. Dans la région à l'étude, plusieurs centaines d'exploitations agricoles et entreprises de transformation détiennent une certification biologique, dont un grand nombre d'érablières (Portail Bio Québec, 2020). La production biologique est actuellement en plein essor, alors qu'en 2017, la part de marché occupée au Québec par les aliments certifiés bio n'était que de 5%. Notons qu'au même moment, la plus grande part des achats de nourriture biologique se faisait dans des supermarchés, et non pas dans des structures de proximité (MAPAQ, 2015, p. 22). Sur un autre plan, on trouvait cinq appellations d'origine au

Québec en 2020, dont deux concernent des aliments produits dans la région de la Capitale-Nationale : le maïs sucré de Neuville (créée en 2017) et l'agneau de Charlevoix (2009).¹⁰ Dans la catégorie qui renvoie à une « spécificité », une fromagerie localisée dans la Capitale-Nationale détenait, en 2020, l'appellation « Fromage de vache de race Canadienne », reconnue depuis 2016. Si les systèmes d'appellation sont considérés par certains chercheurs comme faisant partie des alternatives au modèle alimentaire agro-industriel (Ilbery et al., 2005; Renting, Marsden et Banks, 2003), cette position reste ambigüe puisque la reconnaissance d'une qualité déterminée facilite et vise parfois, en fait, la conquête de nouveaux marchés d'exportation. En plus de contribuer à la standardisation des procédés, un processus jugé typique de l'agro-industrie, elle a aussi tendance à consolider la place déjà occupée, dans les filières concernées, par les plus grands joueurs (Bowen & Gaytán, 2012 ; Grasseni, 2011).

Les marques « Aliments du Québec » et « Aliments préparés au Québec » signalent elles aussi une qualité différenciée. À l'échelle de la province, environ 22 000 produits bénéficient d'un de ces labels, utilisés surtout dans le commerce de détail et la restauration commerciale.¹¹ Chacune de ces deux marques possède une déclinaison « biologique », qui signale des qualités liées à la fois à l'origine des aliments et à des méthodes de production respectueuses de l'environnement. À l'échelle de la région d'étude, certaines collectivités ont créé leur propre marque territoriale dont elles se servent pour faire la promotion des produits qui lui sont associés. C'est le cas dans la MRC de Charlevoix, avec le label « Certifié terroir Charlevoix ». Dans la région de Chaudière-Appalaches, l'initiative « Goûtez Lotbinière », qui fait la promotion des produits issus de la MRC du même nom, a aussi créé un logo qui facilite leur identification (Morin, 2020). Dans ces cas, la clientèle visée par ces marques territoriales est locale et régionale avant tout.

Soulignons, pour conclure cette section de l'article, que les dispositifs de mise en marché qui s'inscrivent dans un modèle de proximité, à la différence des initiatives qui mettent en avant une qualité différenciée signalée comme telle, partagent avec le modèle domestique le fait que la connaissance mutuelle des parties impliquées y constitue une source de confiance et un lubrifiant important de l'échange. La provenance des aliments y est, d'entrée de jeu, clairement établie. On y obtient facilement, de surcroit, des renseignements sur les méthodes culturales ou de production. Néanmoins, les labels de qualité n'y sont pas complètement absents; les fermes du réseau des Fermiers de famille détiennent une certification biologique ou sont en processus de certification. La reconnaissance d'une qualité différenciée par l'attribution d'une appellation réservée implique, pour sa part, la sélection de produits ou de méthodes de production qui seront

¹⁰ Les trois autres indications géographiques protégées concernent le cidre de glace, le vin de glace et le vin du Québec.

¹¹ Pour être identifié comme « Aliment du Québec », un produit doit être « entièrement québécois ou […] composé d'un minimum de 85 % d'ingrédients d'origines québécoise, et ce, à condition que tous les ingrédients principaux proviennent du Québec. De plus, toutes les activités de transformation et d'emballage doivent être réalisées au Québec ». Un « Aliment préparé au Québec » doit être « (…) entièrement transformé et emballé au Québec. De plus, lorsque les ingrédients principaux sont disponibles au Québec en quantité suffisante, ils doivent être utilisés » (Aliments du Québec, 2020).

jugés « authentiques », ainsi que l'élaboration d'un cahier des charges conséquent. Cela peut contribuer à créer des conflits entre producteurs, ainsi que des gagnants et des perdants dans une filière donnée, une dynamique souvent considérée typique du modèle agro-industriel.

Le modèle domestique, de la quotidienneté au dernier recours

Il y a peu de chiffres à fournir en ce qui concerne la place occupée par le modèle domestique de production et d'échange dans la région de Québec, puisqu'il relève de l'économie non marchande et, bien souvent, non monétaire. Les données disponibles résultent pour la plupart d'études exploratoires ou partielles, qui portent sur des petits groupes ou des territoires restreints. Pourtant, le modèle domestique est au cœur de plusieurs activités indispensables mais souvent passées sous silence. Tel que défini par Fournier et Touzard (2017), ce modèle concerne essentiellement les familles et les communautés paysannes. Dans les faits, on le retrouve aussi dans le milieu communautaire.

Les activités de production domestiques comprennent différentes modalités d'autoproduction alimentaire : cultures potagères attenantes au domicile ou aménagées dans des espaces partagés, forêts nourricières, petits élevages domestiques, cueillette de plantes sauvages, chasse et pêche « sportives », acériculture familiale. Elles demeurent toutes marginales comme source d'approvisionnement des ménages. Néanmoins, on constate que l'agriculture urbaine d'autoproduction ne cesse de gagner en popularité. Dans la région à l'étude, on dénombre à ce jour une cinquantaine de jardins communautaires et collectifs et plusieurs projets de forêts nourricières. Un sondage réalisé dans l'agglomération de Québec révélait qu'en 2013, 25% des résidents de cette dernière rapportaient cultiver un potager à domicile ou dans un jardin communautaire (Léger, 2013, p. 21). Il y a fort à parier que ces espaces productifs connaitront une croissance significative au cours des prochaines années, car les pouvoirs publics municipaux et le MAPAQ font maintenant la promotion de l'agriculture urbaine.¹² Les habitantes et habitants de la région à l'étude pratiquent également des activités cynégétiques, qui relèvent aussi de la production domestique. Le ministère des Forêts, de la Faune et des Parcs concède, depuis 2005, une moyenne de 113 500 permis de pêche et 85 600 permis de chasse par année sur ce territoire. Précisons aussi que pour de nombreuses familles de Wendake, réserve de la Nation huronnewendat enclavée par le territoire de la CMQ, la chasse et la pêche représentent des modes d'approvisionnement significatifs.

La transformation domestique correspond pour sa part à la conservation des aliments et à la préparation des repas à la maison. Elle revêt une grande importance dans la région d'étude et

¹² La Direction générale des politiques du ministère des Affaires municipales et de l'Habitation (MAMH) et la Direction du développement et de l'aménagement du territoire du ministère de l'Agriculture, des Pêcheries et de l'Alimentation (MAPAQ) ont réalisé conjointement un « Guide de bonnes pratiques sur la planification territoriale et le développement durable » en agriculture urbaine (Fontaine et al. 2020). La Ville de Québec a adopté récemment son *Plan d'action en agriculture urbaine (2020-2025)*. En outre, la pandémie a suscité un désir d'autonomie alimentaire chez une partie de la population : au printemps 2020, semenciers et centres jardin ont été pris d'assaut.

plus largement, car elle est réalisée dans tous les ménages qui vivent à domicile. Cette activité s'est beaucoup transformée au Québec avec le développement du système alimentaire agroindustriel et les changements sociétaux survenus après la 2^e Guerre mondiale. Elle n'est plus l'apanage des femmes, bien qu'elles en restent les principales responsables au sein des ménages. Par ailleurs, on y passe moins de temps. Depuis plusieurs décennies, la proportion de plats préparés ou prêts-à-manger qui se retrouvent dans l'assiette des Québécoises et des Québécois ne cesse d'augmenter (INSPQ, 2018). Du reste, la transformation domestique des aliments peut aussi opérer au sein de cuisines collectives. Des organismes communautaires structurent et animent des cuisines collectives dans toutes les MRC du territoire à l'étude.

Le don de nourriture entre proches ou étrangers, une modalité domestique de distribution, correspond à une faible part des flux d'aliments qui circulent sur le territoire d'étude, mais il s'avère crucial pour certains ménages. Le don entre proches concerne les parents et amis. Le don entre étrangers passe par des organismes communautaires qui recueillent et redistribuent de la nourriture à des personnes en situation de précarité. Dans la région de la Capitale-Nationale, avant la crise sanitaire et économique provoquée par la COVID-19 en mars 2020, environ 36 000 personnes recevaient, chaque mois, une aide alimentaire; ce nombre a considérablement augmenté depuis, d'autant plus que les cuisines collectives sont mises à mal à cause de la pandémie. Les exploitations agricoles, les entreprises de transformation et les magasins d'alimentation participent activement à ces réseaux de redistribution non marchands; ils constituent en fait d'importants fournisseurs des organismes dédiés à la lutte contre l'insécurité alimentaire. À ce titre, le Programme de récupération en supermarché (PRS), une initiative unique au Canada mise en place par les banques alimentaires et les trois grandes chaines d'alimentation du Québec (Sobeys, Métro et Loblaw), a permis d'accroître considérablement la collecte et la redistribution des invendus de produits de viande et de diversifier l'offre dans ce réseau (Legault, 2018), tout en contribuant à la réduction du gaspillage.

Conclusion

En somme, les constats mis en avant dans cet article démontrent que l'on retrouve une diversité de modèles de production et d'échange sur le territoire à l'étude et que certains d'entre eux pèsent plus lourds que d'autres. Le modèle domestique est le seul dans lequel la nourriture n'est pas une marchandise. Dans le modèle de proximité, elle constitue un bien qui se vend et s'achète, même si le nombre d'intermédiaires et les distances parcourues restent faibles. Dans les initiatives contemporaines s'inscrivant volontairement dans ce modèle, la nature de la nourriture est ambivalente : il s'agit d'une marchandise que l'on associe, néanmoins, à des personnes, des groupes, des lieux et des identités auxquels s'identifient les mangeurs, alors que dans le modèle de commodités et, à plus forte raison, dans le modèle agroindustriel, l'aliment est devenu une marchandise anonyme et accessible à un grand nombre, sur des marchés plus ou moins éloignés des lieux de production, selon le cas. Le modèle de qualité différenciée met en avant des

manières de contrecarrer cet anonymat, en visant des marchés pouvant être éloignés, à la différence du modèle de proximité. À part le modèle domestique, les autres se rejoignent donc sous certains aspects et plusieurs sont compatibles entre eux. Par exemple, les aliments disposant d'une appellation d'origine contrôlée peuvent être vendus en circuits courts et longs, par le biais de marchés fermiers comme par celui de magasins d'alimentation appartenant à des grandes chaines. Le modèle domestique se distingue fortement des autres puisque dans ce cas, il n'est pas question de commerce ou de bénéfices. S'il reste souvent invisible dans les statistiques régionales et nationales, nous considérons qu'il importe de l'inclure quand il est question des systèmes alimentaires, car les activités qu'ils désignent sont significatives dans tous les maillons de ce dernier.

Notre analyse témoigne aussi du fait que les acteurs participent à des réseaux qui relèvent de plus d'un de ces modèles, qui s'entrecroisent ainsi (Le Velly, 2019). Par exemple, pour se procurer des aliments, les consommateurs sont susceptibles de recourir à différentes filières d'approvisionnement, comme l'achat en magasin ou chez les producteurs, le don et l'autoproduction. De même, les agriculteurs mobilisent souvent plus d'un canal de mise en marché pour écouler leur production. Pour leur part, les supermarchés constituent des fournisseurs importants des banques alimentaires.

À l'issue de cette recherche, le système alimentaire nous apparaît plus complexe que jamais et marqué par des dynamiques diversifiées et hybridées. Cette complexité représente sans contredit un défi pour la recherche. Des milliers d'acteurs de toutes tailles constituent le système alimentaire de la région de Québec. Ces acteurs prennent quotidiennement de multiples décisions qui rendent illusoire tout repérage exhaustif des flux et des interactions. Ainsi, plusieurs des questions formulées par les partenaires en début de démarche demeurent sans réponse. Dans certains cas, elles auraient requis de s'attarder à une portion plus petite du territoire visé ou à une seule filière de production, voire un seul aliment, par exemple. Souvent, elles auraient exigé des ressources humaines et financières considérablement plus importantes que celles dont nous disposions. Enfin, il reste encore beaucoup à faire pour évaluer les pratiques existantes et les initiatives en émergence sur le plan de leur durabilité environnementale, économique et sociale.

Pour terminer, eu égard au partenariat dans le cadre duquel s'inscrivaient nos activités de recherche, nous constatons que le recours à une approche territorialisée du système alimentaire a permis de rendre certaines réalités régionales plus visibles et plus intelligibles pour les membres de l'équipe de recherche et pour les partenaires du projet. En effet, elle a contribué à la connaissance et à la reconnaissance mutuelle des différentes logiques d'action, des contraintes structurelles et des rapports de pouvoir en place. Elle a aussi facilité un rapprochement entre les partenaires du projet, des organismes gouvernementaux et non gouvernementaux qui occupent des positions diversifiées, voire antagoniques, dans le système alimentaire régional.

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Original Research Article

"I don't want to say I'm broke": Student experiences of food insecurity at Queen's University

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Abstract

Food insecurity, the inadequate or insecure access to food because of financial constraints, is an important public health concern, associated with poor physical and mental health. Recent research among post-secondary students shows that it also has consequences for academic performance; food insecure students are more likely to have lower grades and to drop out. This qualitative study aimed to describe the experiences of Queen's University students who didn't have enough money for food or who worried about having enough money for food. We conducted semi-structured interviews with 12 undergraduate, 10 graduate and 5 professional students. Participants included 14 students of colour and 2 Indigenous students. All described chronic food insecurity during their time at Queen's, including 9 who experienced severe food insecurity, skipping meals and going hungry. Most participants cycled between different levels of food insecurity (severe, moderate, and marginal) depending on the availability of resources, though a few were severely or moderately food insecure on an ongoing basis. None escaped worry and anxiety about being able to properly feed themselves. Our sampling strategy netted a more diverse set of students than previously described in the literature on post-secondary student food insecurity, including first-generation Canadians, international students, Indigenous students, law students and undergraduate students transitioning to independent living. Our results demonstrate the human costs of market approaches to post-secondary education and lend support to the growing campaign in Canada for a basic income that includes young people.

Keywords: Food insecurity; university students; health; poverty; inequities; Canada

Introduction

Individual and household food insecurity—the inadequate or insecure access to food because of financial constraints-has serious consequences for health and is recognized as an urgent public health concern (Power, Abercrombie, Fafard St-Germain, Vanderkoov & Dietitians of Canada, 2016). Adults who are food insecure are more likely to suffer overall poorer health and a variety of diseases, including mental illness, diabetes, heart disease and other chronic diseases (Heflin, Siefert, & Williams, 2005; Huddleston-Casas, Charigo, & Simmons, 2008; Siefert, Heflin, Corcoran, & Williams, 2001; Siefert, Heflin, Corcoran, & Williams, 2004; Tarasuk, 2001; Vozoris & Tarasuk, 2003), and early death (Gundersen, Tarasuk, Cheng, de Oliveira, & Kurdvak, 2018) compared to those who are food secure. Children who live in food insecure households are more likely to experience poorer overall health (Cook et al., 2004; Cook et al., 2006; Kirkpatrick, McIntyre, & Potestio, 2010); cognitive problems and poorer social skills (Howard, 2011); various chronic illnesses, such as asthma (Kirkpatrick et al., 2010); and higher rates of mental illness, including suicide ideation and suicide attempts in adolescence (Alaimo, Olson, & Frongillo, 2002; McIntyre, Williams, Lavorato, & Patten, 2013). Representative surveys in Canada and the United States show a national population prevalence of food insecurity in the range of 12-13%, with some groups, such as Indigenous populations, racialized groups, and single mothers experiencing much higher rates (Coleman-Jensen, Rabbitt, Gregory, & Singh, 2018; Tarasuk, Mitchell, & Dachner, 2014). Food insecurity is highly correlated with income, in that the risk of food insecurity increases significantly as household income drops (Tarasuk, Mitchell, & Dachner, 2014).

Until recently, there has been little attention paid to food insecurity among post-secondary students. US and Canadian scholars have begun to investigate post-secondary student food insecurity in the context of tuition fees that are rising at rates higher than inflation, mounting levels of student debt (Walsh, 2018), uncertain post-graduation employment prospects, and concern about how social inequality is reproduced in higher education (Willis, 2019). Recent literature reviews have shown that estimates of the prevalence of food insecurity on postsecondary campuses in Canada, the US, and Australia are generally much higher than national rates (Bruening, Argo, Pavne-Sturges, & Laska, 2017; Lee et al., 2018; Nazmi et al., 2018). Existing quantitative studies have been hampered by weaknesses including sampling, selection and reporting biases and the use of varied and non-validated survey instruments (Lee et al., 2018; Nazmi et al., 2018). In addition, students tend to be surveyed as individuals, whereas national prevalence rates refer to households. This means that these rates cannot be generalized to the broader university population where the research was conducted, or directly compared with each other or to measurements of food insecurity in the broader population. However, the overall evidence suggests that food insecurity may be a serious concern for a significant proportion of post-secondary students (Nazmi et al., 2018).

The largest survey to date in Canada, with over 4000 students at five universities, found an overall prevalence of food insecurity of 39% (Silverthorn, 2016). Even with weaknesses in the

study design which may have inflated the prevalence, such a high rate is concerning. The existing research shows that students who are food insecure are less likely to eat a healthy diet or engage in physical activity; more likely to have lower grades and trouble focussing on their studies; more likely to suffer poorer overall physical and mental health; and more likely to defer their studies or drop out compared to food secure peers (Bruening et al., 2017; Bruening, van Woerden, Todd, & Laska, 2018; Farahbakhsh et al., 2017; Lee et al., 2018; Suzanna M. Martinez, Webb, Frongillo, & Ritchie, 2018). Risk factors of food insecurity for post-secondary students include having a low income, being a member of racialized group, being a first-generation post-secondary student, not having support from family, having children (Bruening et al., 2017; Lee et al., 2018), and being a member of a sexual minority (Willis, 2019). In other words, campus food insecurity disproportionately affects those who are already marginalized (Shipley & Christopher, 2018) and may play a role in reproducing social inequality by limiting students' ability to complete higher education, one of the most powerful determinants of social mobility (Broton & Goldrick-Rab, 2018; Willis, 2019).

Queen's University in Kingston, Ontario is not a post-secondary institution that most Canadians would associate with poverty or food insecurity. It is one of Canada's oldest universities and has a reputation as an 'elite' (though publicly funded) school that attracts students from private secondary schools. However, belying Queen's reputation as a university of privilege, 22% of all Queen's students qualify for a needs-based bursary (www.queensu.ca/promise-campaign/) and a food bank has operated on campus for over twenty years. Preliminary analysis of the 2019 cycle of the National College Health Assessment survey at Queen's shows that 3.4% of respondents often or most of the time skipped meals or went hungry because they could not afford to eat and 6.3% worried about their food running out before they got money to buy more. Troublingly, these students were more likely to report tremendous stress, have a lower GPA, and worse mental health (K. Humphrys, personal communication, November 2019). Previous unpublished research with Queen's food bank clients found that some experienced profound food deprivation and tremendous stress related to inadequate finances (Power & Zhao, 2013; Zhao, 2013). The current qualitative research project builds on this unpublished research to investigate Queen's University students' experiences of food insecurity.

Methods

Undergraduate, graduate, and professional students were recruited by social media, notices at the campus food bank, and via listservs. We invited Queen's students who worried about running out of food or did not have enough money to buy groceries in the current academic year to participate. A \$30 honorarium was provided. Similar to Henry (2017), participants were recruited easily and quickly. The study was granted clearance by the Queen's General Research Ethics Board (GPHE-119-12).

Individual semi-structured interviews of approximately 40-75 minutes were carried out in a private space on campus. One interview was conducted by phone with a graduate student who had returned to her home city. Audio-recorded interviews were conducted by the first and third authors between December 2017 and December 2018. Interviews were transcribed verbatim and inductively coded by the second author. The coding scheme was developed by the second author in consultation with the first and fourth author. Data were managed using ATLAS.ti qualitative data analysis software. We followed Tracy (2010) to ensure high quality research design, data collection and analysis.

Results

Characteristics of the sample

Twelve undergraduate, 10 graduate, and five professional students participated in interviews, with six men and 21 women overall. Another graduate student, a fifth-year doctoral student with three children, wanted to participate but said she could not manage an hour out of her day, even by phone. In our analysis, we did not include the interview data of a first-year undergraduate woman who focussed on the poor quality of food available in residence. Thus, 26 participants were included in the analysis.

Of these 26 students, there were 14 students of colour and two Indigenous students. Two mature women students had survived intimate partner violence. Of the 11 undergraduate students, six were students of colour and immigrants to Canada. The remaining five were white and had Ontario Student Assistance Program (OSAP) government loans. One undergraduate participant was a parent.

Of the 15 graduate and professional students, seven were students of colour and two were Indigenous. Five were international graduate students and four were parents.

Food insecurity status

We categorized the severity level of participants' food insecurity based on their accounts of their experiences, using categories developed by the University of Toronto PROOF Centre for Food Insecurity Policy Research (PROOF, 2018). These categories are:

- severe skipping meals, reducing food intake, going one or more days without food;
- moderate compromising the quantity and/or quality of food; and
- marginal worrying about running out of food and/or limiting food selection.

Most participants described experiences of food insecurity that changed over time according to their incomes and the demands on their finances. However, none of the students who had experienced severe food insecurity ever stopped worrying about running out of food.

Severe food insecurity

Nine participants described skipping meals and going hungry because they did not have enough money for food. This is an unambiguous sign of severe food insecurity. For some this was chronic, while for others it was episodic or cyclical. For example, Ruby¹, an international graduate student who was a single mother, bought and prepared the best food she could afford for her elementary school-aged child but subsisted on small portions of inexpensive food herself. When asked if she got hungry, she replied, "Of course" but she said that she had gotten used to it with all the practice she had. She had unintentionally lost about 10 kilograms since coming to Canada.

An Indigenous student, James, in his third year at Queen's, described cyclical periods of hunger. November was a challenging time for him because his savings from the summer were gone and the next installment of his funding package was not yet available. In November, he would eat "a coffee for breakfast, a couple oranges for lunch and then cereal for dinner." He described another time when his dad had sent him some money after a lean period:

I went to the grocery store to get food, and I almost passed out in the store... It was actually pretty bad. ... I just, I grabbed the first thing that I could see and just started chomping down. So, here's this guy— dizzy headed looking guy—sitting in the middle of the aisle, in Loblaws [grocery store], snacking away.

Other students also described periods of dizziness from lack of food. One kept a stash of candy to boost her blood sugar when she felt dizzy. Another had landed in the hospital emergency room after fainting from lack of food.

Several students carefully timed when they would eat, cutting their meals down to two, or sometimes one, per day. Faith, an international graduate student who waited two months to get a social insurance number and could not be paid for her work as a teaching assistant until she did, ate a meal of "rice, oil and a pinch of salt" once a day for two months.

I would strategically eat it late in the afternoon, so I wouldn't get worried about dinner... My concentration, my studies were also affected because it got to a point that I would really hear sounds from my stomach, and then it would remind me that I'm hungry, but 'Hey, I can't eat now. I have to wait for a while.' And I would smell food all around, but I couldn't

¹ All names are pseudonyms.

have access to food. And so, (sigh) yeah, it was, it was tough, honestly. It was tough.

Although Faith's situation improved once she started being paid for TA work, she was still food insecure. She had eliminated meat and fish from her diet, except for rare occasions when she had some extra money left over at the end of the month. Even though she loved these foods, she did not feel she could afford them regularly. She stated, "it makes me sad sometimes," referring to her inability to buy the foods she enjoyed so much.

Moderate food insecurity

Almost all the students we interviewed could have been described as moderately food insecure at one point or another, limiting the quantity or the quality of the foods they purchased and ate. Some participants described marginal food insecurity most of the time, but they moved into moderate food insecurity when their income dropped or expenses suddenly increased. One international graduate student, Grace, said that she thought about money constantly and was always stressed as a result. However, with careful budgeting and constant attention to their finances, she and her husband were usually able to eat well, with lots of fresh fruits and vegetables; she was even able to prepare snacks when they hosted other graduate students. However, Grace's delicate financial balancing act was derailed when her husband's 11-year old son came to visit for two months over the summer. She described it as "the one period of time that we bought crappy food," such as hot dogs. She felt physically ill during this period, which she ascribed to the poorer quality food she was eating.

Other students, like Faith, described how they normally eliminated whole categories of food, such as meat, fresh produce, or dairy. A few students had become vegetarian to save money. Experiences of moderate food insecurity were sometimes highlighted by participants' answers to the question of how they would eat if they had enough money for food. For example, Jessica, an international student, stated that if she had enough money for food, she would "actually eat a balanced diet and eat three times a day."

Charlotte, a domestic undergraduate student who was the first in her family to go to university, described spending a maximum of \$30 per week on groceries.² In speaking about her food budget, she said, "It's definitely enough to get by, but it's definitely not enough to be healthy." She ate mostly what she called "cheap" or "boxed" food such as Kraft Dinner. She said she felt "guilty" about buying better quality food because, "there's always something coming up that I anticipate having to spend money on, so for that reason, I try not to spend money." At the time of the interview, paying her \$200 utility bill had left her with \$20 in the bank until her next pay cheque in two weeks. She anticipated eating "lighter" meals of cheap boxed and frozen food until she got her paycheque. Though she expected her parents would help her with money to buy

² This is about half the amount that the local Public Health Unit estimates it would cost to eat an economical healthy diet for a woman of her age. See: www.kflaph.ca/en/healthy-living/Cost-of-Healthy-Eating.aspx

groceries, she did not want to ask and be "a burden" because they were "not in a great financial situation" themselves.

Marginal food insecurity

Like Grace, described above, students who worried about having enough money for food often did a considerable amount of work to make sure they could eat reasonably well. They were often highly skilled budgeters and shoppers and used multiple strategies to lessen their food bill. They checked flyers for sale items, clipped coupons, travelled to discount grocery stores, and shopped on days when grocery stores offered student discounts. Those who had access to a vehicle would buy some items in bulk. Unlike the moderately or the severely food insecure students, marginally food insecure student had more flexibility in what they bought, and some ate a relatively healthy diet. For example, Amy, a domestic grad student described some of the work that she and her partner did, starting with what they knew would be at the campus food bank.

We write out a list, and we figure out what can be available at the food bank, and then we categorize based on what we've established is cheaper in one place or another, and since we go to No Frills [discount grocery store] and Costco, if it's worth getting the spinach at Costco we do that trip, and get what we can at Costco that we've, over time, figured out is cheaper there. And then the rest we get at No Frills.

A few students went to great lengths to save money. Two students described how they would regularly email companies whose products had 'satisfaction guarantees' to complain about the purchased product and then receive multiple coupons as compensation. One graduate student who lived on a low income for many years described multiple money saving techniques, including diluting shampoo and washing plastic wrap for re-use. Another student, who grew up in poverty and felt alienated by the culture of affluence at Queen's, told the interviewer that he regularly shoplifted grocery items—but only at large chain grocery stores that he had decided could afford the losses.

Types of students

In this section we describe the types of students we interviewed, to highlight the diversity of issues contributing to food insecurity for Queen's University students.

Undergraduate students who are first-generation Canadians

Seven students identified themselves as first-generation Canadians whose parents were helping to finance their studies to varying degrees. Some students had government loans and some had part-time jobs during the academic year. Several of these students described their parents as

working long hours to support their families. For example, Kevin, an only child whose family had come to Canada from China, described his parents as "always working" and "working crazy hours" at their jobs in Toronto restaurants. He had a credit card that his parents paid, and though they encouraged him to use it to buy food, he tried not to use it and did not want his parents to "waste their money" on food for him. Kevin and other students like him appreciated all that their parents had already done for them and did not want to further burden them. Bessey and colleagues (2020) describe a similar tension among food insecure undergraduate students in Nova Scotia who want to be financially independent.

Some first-generation Canadian students expressed acute awareness of their family's financial precarity and did not want to further drain family resources. For example, Adam's parents urged him to let them know if he needed money, but he said, "They're not doing so well either and I feel bad asking them for money." Heather was conscious of how challenging it was for her parents to afford their expensive rent in Toronto on one income. Her parents were not able to help her very much financially, so she relied on government loans and paid for her groceries from her part-time job. Dave, who grew up in Toronto, was the first in his family to go to university and he felt a lot of pressure to graduate to set an example for his nieces and nephews. He explained that his parents "want me to have a normal experience in University and not stress about money" but he worried that his parents were "drowning in debt" to keep up middle class appearances. He expected that once he had a job, he would have to pull them out of debt as well as pay off his own loan, which he estimated would amount to at least \$40,000 by the time he finished university.

One second-year student, Samantha, spoke of how poor her family was when they first moved to Toronto from China when she was three. She learned the importance of saving money at a young age and now struggled with seeing her bank account dwindle as she paid her bills but had no income.

> I find with some of my other friends who grew up in an immigrant household, even though life's a lot easier now, they still have this feeling of, "Oh, I need to save," or it's harder for them to go and get food, even though our parents might be like, "Hey, we're okay now, you can go and get yourself something nice," but growing up it's been ingrained ... "Just in case anything happens, always save."

In the first semester of her second year, after moving out of residence, Samantha prided herself on spending only \$10 per week on food. She tried intermittent fasting because of research that showed its health benefits; it also meant that she would eat two meals per day instead of three. Her parents grew concerned when she lost weight and encouraged her to spend more money on food. They started sending her care packages of food, which had the added benefit of being culturally appropriate food, which Samantha found difficult to find in Kingston. Samantha knew that she needed to learn to feel less anxiety about spending money to eat properly, but she was finding it difficult. Some first-generation immigrant participants had parents who could have provided more financial assistance, but the students were acutely aware of their parents' sacrifices to provide a better life for them and were unwilling to ask for more. Others knew that their parents could not provide any additional funding because of the family's financial precarity. Participants wanted to fulfill their parents' dreams for them and hoped their parents would be proud of them. As other research has shown, it can be complicated for first-generation children to navigate complex family dynamics around post-secondary education (Wang & Nuru, 2017).

International students

Over the past few years, Canadian universities have intensified their efforts to recruit international students, whose tuition fees are much higher than those of domestic students and unregulated by government (Ireton, 2019). However, rapid fee increases make it difficult for international students to plan (Ireton, 2019). US scholars have noted a similar trend, without a corresponding increase in programs, services, or efforts to ensure students' academic and social needs are considered (Heng, 2017). One US study found high rates of food bank use among international students (El Zein, Mathews, House, & Shelnutt, 2018).

Five participants were international graduate students, and one was an international undergraduate student. Their situations were varied. Two participants were able to get extra money from their parents when needed, though they hesitated to ask. Two others described sending money home to their families, one regularly and one for an emergency situation. One male graduate student had no cooking skills and regularly ate more expensive prepared or restaurant foods, while another male and two female graduate students described sophisticated budgeting, shopping, and cooking skills.

Two students were persistently and severely food insecure. Ruby's situation was the most challenging. As described above, she was an international graduate student who was a single parent to an elementary school-aged child. She had no financial support from her family, little social support in Kingston, and could not afford childcare. She had to give up her employment as a teaching and research assistant because she had so little time to do her own work, between caring for her daughter and the extra time it took her to read in English, which was not her first language. Ruby had come to Queen's specifically to study with her supervisor, an internationally renowned scholar, and was determined to finish her doctorate so that she could take up an academic position in her home country.

Jessica was the only international undergraduate student who participated in the research. She described her family as "very wealthy" but suspected that her parents were financially stretched, with all three of their children in Canada, attending university or private high school and paying tuition that increased every year. Her family sent her money only once per year, and at the time of the interview, Jessica had little money left for food. She said that her father did not believe that she could have spent so much money on food, not recognizing that food costs are much higher in Canada than in her home country. Jessica loved to cook and considered that she had good food skills. However, not having much money for food and living far from campus were significant barriers to eating well. She described the ease of popping into the dining hall in first year with her meal plan, and never having to think in advance about what to eat. Now that she had to cook for herself, she often did not bother, and when she did, it would be "something quick." She did not always take time in the morning to pack food with her, but found the options on campus expensive and could not justify buying them. Instead, she went hungry.

> Sometimes I'll be in class and think, I just want a quick sandwich, but then I'm like, is it worth it to buy this five-dollar sandwich or, instead, go to Metro [grocery store] and buy two-dollar eggs and something else? I am always thinking before I eat, which I don't think is like a healthy thing, but before I take anything, I'm always calculating what is this going to take away from me if I have this now? And it's just, I'll be in class, and like let's say I forgot to have breakfast and, I have back-toback-to-back classes, and I'm just hungry the entire day because all I'm thinking of is, "Just go home, wait 'til you get home and eat the groceries that you have (laughing), rather than spend five bucks now and then like, not have that five bucks and you've just had this one sandwich."

At one point, Jessica fainted and was taken to the emergency room, where she was diagnosed with iron-deficiency anemia and other nutrient deficiencies. She had little awareness of the existing resources on campus and was grateful to be connected to campus services and programs.

These accounts of food insecurity among international students highlight issues raised by other scholars about the ethics of a market-driven approach to international student recruitment (Altbach & Teichler, 2001; Heng, 2017) and domestic universities' responsibilities for the wellbeing of international students who often experience significant challenges, including racism, language and cultural barriers, social exclusion, and financial difficulties (Sherry, Thomas, & Chui, 2010).

Indigenous students³

There were two participants who self-identified as Indigenous. One student, James, was being funded by the federal government's post-secondary support program for Indigenous students, which paid his direct educational expenses (tuition and books) plus a living allowance of \$750 per month. His band added \$250, for a total of \$1000 per month. However, his rent at the graduate student residence was \$750 per month, leaving him only \$250/month for food, cable, cell phone, transportation, and other essentials. James noted that the federal government support program had set the living allowance in 1996, before cell phones or the expectation that all

³ Because of the low numbers of Indigenous students at Queen's, we have deliberately not identified Indigenous participants' programs to protect their confidentiality.

students had personal computers. He considered the lack of adequate funding for Indigenous students a broken treaty promise.

The second student, Katie, applied for funding for her post-secondary education from her band, but was rejected. Now in her eighth year of university education, she had received a total of only \$8000 from her band, despite multiple applications. She was in a program with high, deregulated tuition fees and had "a crazy amount of debt." Katie had a government (OSAP) loan, a student line of credit, and worked as a teaching and research assistant during the school year. Her parents had four younger children and were living on low incomes themselves. Katie was grateful for the groceries that they would sometimes bring, but she was not comfortable asking them for more. She was chronically, severely food insecure, and had lived on potatoes and noodles for much of her time at Queen's. She also had dietary restrictions, notably gluten and dairy. Sometimes she was so hungry that she would eat the free pizza on offer at various events or the fry bread at the Four Directions Aboriginal Student Centre. Her stomach would then be upset for days. Katie was embarrassed to ask for assistance and felt a particular burden to not reinforce any stereotypes of Indigenous poverty.

Indigenous people in Canada suffer much higher poverty rates than non-Indigenous people, with rates among Indigenous children living on reserve at 60%, more than four and a half times the rate for white, non-immigrant children (Macdonald & Wilson, 2016). Moreover, while post-secondary education is an important route out of poverty, Indigenous people attain university degrees at a rate that is less than half that of the non-Indigenous population (Statistics Canada, 2013). Queen's has committed to implementing the post-secondary education recommendations from the Truth & Reconciliation Commission (TRC) Calls to Action, including the elimination of educational gaps between Indigenous and non-Indigenous Canadians (Queen's University Truth and Reconciliation Task Force, 2017). James' and Katie's stories suggest that Queen's initiative to develop bridging and pathway programs to bring in more Indigenous students, while admirable, is inadequate. Without sufficient material support after they arrive, students who come to Queen's through these programs may face high personal costs. This conclusion is supported by the results of a recent national survey of Indigenous post-secondary students, which found that improved funding is critical for student success (Indspire, 2018).

Law students

Five participants were enrolled in the JD program at the Queen's Faculty of Law, while a sixth was doing graduate work in law. Tuition is deregulated at the Law School, meaning that tuition fees at the time of the interviews were approximately three times the tuition for graduate school. Participants' experiences of food insecurity ranged from marginal to severe. Two were severely food insecure, one persistently and one cyclically. Two others had maintained moderate food insecurity during their studies.

The reproduction of social inequality was perhaps most visible and keenly felt at the Faculty of Law. Participants noted that some of their classmates had one and sometimes two

parents or grandparents who had attended law school. All participants noted the invisibility of poverty and food insecurity at the Law School, where they felt alienated from the pervasive 'air of privilege'.⁴ Almost all Faculty of Law participants noted classmates' luxury cars, naming Bentley, Mercedes and Lexus vehicles, as one of the most visible signs of the disjuncture between themselves and their classmates. One participant recounted his experience of being in a class about poverty and thinking to himself, "Hey, that's me!", but the class was conducted in a way that assumed that poverty was somewhere else, affecting others. Similarly, in response to a question about using the food bank, Adam stated, "We are expected to *donate* to the food bank." Another agreed to participate in the study only after she was reassured that she would the fifth participant from the Law School. She had cancelled a research interview appointment without explanation and stated afterward that she was embarrassed, believing she was "the only one" in the Faculty of Law who did not have enough money for food.

The invisibility of poverty was a double-bind. On the one hand, it allowed students to 'pass' without needing to explain themselves. On the other hand, it made them reluctant to ask for help, did not allow them to support each other, and left them feeling isolated from the other students. As one Law School participant stated, "I don't want to say I'm broke, because I know this person [classmate] just got dropped off in a Mercedes." Most of the Law student participants spoke in glowing terms about a staff person who was able to help out with emergency bursaries and tickets to events, but as much as they appreciated her support and kindness, it was impossible for her to fill the gaping holes in their finances. Their experiences call into question the idea that access to professional education remains open and equitable when tuition fees are deregulated.

Transition to independent living

The majority of Queen's undergraduate students live in residence for their first year and then move off-campus to rental accommodation for the remainder of their education. Five undergraduate participants described a challenging transition from first-year residence living to second-year independent living. They described independent living as less expensive than residence, but they were now responsible for doing their own meal planning, budgeting, shopping, food preparation, and clean-up. Juggling domestic demands with school work and sometimes part-time jobs work was overwhelming for a few, especially if they did not have previous experience of cooking for themselves.

For example, Kevin, a second-year Life Science student, had never learned to cook at home. He had been eating out a lot and was aware of how expensive it was, so he learned to cook "basic stuff," such as scrambled eggs and rice, using YouTube videos. With a heavy course load

⁴ Law student participants noted pervasive class privilege; most also spoke of white privilege, sometimes in relation to settler colonialism.

and little time for meal preparation, he liked food that he could "grab and go", such as sandwiches or bagels and cream cheese. But he was easily bored with the food he prepared for himself and wished he could afford to opt-in to a meal plan.

The transition to living independently is likely challenging for most students; however, it is more complicated for those who do not have food skills, or do not have enough money for food and cannot depend on family to help. Further research is needed to assess how food insecurity in the transition to independent living may affect students' ability to continue their studies and succeed.

Effects of food insecurity

Similar to other research (Bessey, Frank, & Williams, 2020; Henry, 2017; Martinez, Frongillo, Leung, & Ritchie, 2018; Maynard, Meyer, Perlman, & Kirkpatrick, 2018; Meza, Altman, Martinez, & Leung, 2018), participants described a wide range of health effects that they attributed to food insecurity. These included unintended weight changes, anemia, light-headedness and fainting, headaches, persistent stress that sometimes intensified, and feelings of tiredness, weakness, being run down, lethargy and irritability. Some participants described an inability to concentrate and a preoccupation with food and money. Jamie, who only ate once a day because of her food insecurity, stated, "you just feel terrible, you can't focus, your brain is just not working the way it should, you're super lethargic."

Two male participants said that they went to the gym less often or not at all when they did not have enough money for food. Another student from a low-income family took up smoking to help cope with his anger that he and his family had so little, while others around him had so much. Some felt guilty for not eating healthily, and those with dietary allergies or restrictions found it especially challenging to access food.

Charlotte described the stress and mental exhaustion involved in grocery shopping and "forcing" herself not to buy items she wanted because she had so little money:

I'll be in the [grocery] store and I'll look at something and I'll be like, "Wow, I really want to eat, I really want to buy this," but it's like, "No, don't buy it," like, "You don't need it," like, "You don't need that," like, "You can have something else, or you can make something else, or you can make use of what you already have at home." That kind of thing. ... So, it's mostly just me thinking to myself, and criticizing myself and not letting myself buy things.

Food insecurity also either set up or reinforced disordered eating patterns for some students, including eating only once or twice a day and ignoring hunger cues. It complicated or deepened existing mental health problems. For many students, food insecurity was inextricably linked to feelings of social isolation, not being able to join their friends in social activities, and an ongoing sense of deprivation.

Not surprisingly, some students thought that food insecurity had affected their academic performance, especially when combined with the stresses of intense course loads, challenging courses, part-time employment, and financial worries.

Discussion and conclusion

Our results are broadly consistent with other qualitative research on food insecure university students (Bessey et al., 2020; Henry, 2017; Maynard et al., 2018; Meza et al., 2018) and has found similar results with respect to the effects of food insecurity, including feelings of shame, stigma, invisibility, and social isolation among participants. Unlike previously published qualitative research, our sample included graduate and professional students, and we deliberately recruited students who were not using the campus food bank. These recruitment strategies created a sample of students for whom the contexts of food insecurity varied. While the longstanding cliché of the 'starving student' (Henry, 2017; Maynard, Meyer, Perlman, & Kirkpatrick, 2018)) implies that there have always been postsecondary students without adequate resources to properly feed themselves, until recently, this phenomenon has not been taken seriously. There has been little effort to understand student experiences of food insecurity, which students are most at risk, or the extent or consequences of food insecurity among university students. Our sample is not random and cannot be considered representative; however, it is noteworthy that many participants came from backgrounds that are at higher risk of poverty, including students who are the first in their families to go to university in Canada (including Indigenous students, first-generation Canadians, and those from low-income families), and those with dependent children.

As government funding for university education has slipped below 50%, Canadian universities have turned to tuition to fill the funding gap (Usher, 2019). Tuition and mandatory fees for domestic students have increased at a rate higher than inflation, doubling between 1995-96 and 2019-20 (Usher, 2019). For international students, undergraduate tuition has increased by almost 70% in only the past ten years and is now \$35,000 annually in Ontario (Usher, 2019). In the context of decreased government funding for post-secondary education, the rate of tuition increase has attracted concern about accessibility for students from lower income families. However, despite increasing tuition, enrollment in university education has grown over the 21st century (Fréchette, 2016). In fact , the average national rate of participation in postsecondary education for young people from the lowest quintile of family income has grown the fastest, reaching 47%, still considerably less than the 80% participation rate of young people from the highest quintile of family income (Fréchette, 2016). Student debt levels rose dramatically in the

1990s but have stabilized as student assistance programs have moved away from loans to grants and tax credits (Usher, 2019).

While these descriptive statistics paint a picture that may seem reassuring, our results suggest that statistical averages may conceal a more complex reality. Some students, who cannot rely upon family resources to support them during periods of shortfalls, may be paying a high personal price for their university education. Their struggles are particularly invisible at Queen's, where the dominant student culture of privilege and affluence has hidden the needs of more marginalized students, reinforced their social exclusion, made it more challenging for them to ask for help, and threatened their ability to reach their full potential. Moreover, our results suggest that food insecurity may be contributing to what has been called a 'mental health crisis' on campus.

An inability to cover the cost of everyday living expenses is at the root of most of the problems described by participants. In the general population, food insecurity is a sensitive marker of material deprivation and thus a symptom of the broader problem of poverty (Loopstra & Tarasuk, 2013; Tarasuk, 2017). This suggests that eligible students may benefit more from a provincial or national basic income program to cover basic needs than from free or heavily discounted tuition. While the growing movement for basic income in Canada has focussed on high rates of precarious work among young people and the threat that automation poses to paid employment (Forget, 2018), student food insecurity may provide another compelling reason to implement such a program. For domestic students, an income that meets basic needs for food, shelter and clothing would go a long way to addressing most, though not all, of the issues our participants described. Our results also suggest that Queen's University and the Ontario government need to rethink their strategy of recruiting international graduate students to make up income shortfalls without providing adequate supports, especially adequate funding, to ensure the students' well-being. Finally, for the benefit of the minority of students who lacked food skills, the results support advocacy efforts to introduce food literacy curricula in secondary schools (Truman et al., 2017).

The implementation of a basic income program is well beyond the scope of a university's remit. However, universities could use their considerable authority to support and advocate for a basic income for students, in recognition of the primary importance of income as a determinant of health (Raphael, 2009) and food insecurity (Loopstra & Tarasuk, 2013; Tarasuk, Mitchell, & Dachner, 2016). Queen's University has adopted the *Okanagan Charter: An International Charter for Health Promoting Universities and Colleges* (Okanagan Charter, 2015) which includes two calls to action: "to embed health into all aspects of campus culture" and "to lead health promotion action and collaboration locally and globally" (p. 3). The recommendations of the recent Queen's University Report on Food Insecurity (Sebesta & Queen's University Food Insecurity Working Group, 2019) are aligned with the Charter, particularly around the promotion of well-being in food and nutrition and in social inclusion. However, without addressing the key underlying problem of income, these recommendations are essentially symptom management.

Universities concerned with addressing student food insecurity could learn from the cautionary tales of the wider community, where efforts to tackle food insecurity have been relegated to the voluntary sector at the community level. Food banks have been the primary response to food insecurity in Canada for the past 40 years. While well-intentioned, the efforts of food banks do not shift empirical measurements of individual and household food insecurity, and leave completely unserved the vast majority of food insecure households that do not access them (Loopstra & Tarasuk, 2012; Tarasuk, Fafard St-Germain, & Loopstra, 2019). The most significant unintended effect of food banks may have been to provide a cover for the dismantling of the Canadian social security net (Power, 2017; Tarasuk, Dachner, & Loopstra, 2014).

As institutions promoting critical thinking skills and retaining considerable authority, universities are in unique positions to produce sharp analyses of the primary causes of food insecurity and avoid the pretense that food programs are the best solutions. Ultimately, universities have a responsibility to advocate for real solutions that promote the health and wellbeing of their students.

Addendum: In January 2021, Queen's University announced that there would no longer be a fee differential for international doctoral students.

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Book Review

Take back the tray: Revolutionizing food in hospitals, schools, and other institutions

Joshna Maharaj ECW Press, 2020: 250 pages

Review by Jennifer Sumner*

This book fills a gap that is decades old—the problem with institutional food. Long the butt of jokes, complaints, and recriminations, institutional food has often represented the epitome of the worst that food can be: unhealthy, bland, colourless, placeless, and joyless—an afterthought that is underfunded and overcooked.

Enter Joshna Maharaj, a chef who is also a TEDx speaker and food activist. Her bona fides are impeccable—she has worked in institutional food settings in Toronto for over 10 years and has revolutionized the way food is served in those settings. From The Stop Community Food Centre to The Scarborough Hospital to Ryerson University, she has implemented her belief "in the power of chefs and social gastronomy to bring hospitality, sustainability and social justice to the table" (251). Her stories from the frontlines of these institutions are fascinating in themselves, starting with her experience as a post-surgery hospital patient facing an egg-salad sandwich mixed with low-calorie whipped salad dressing on white industrial sandwich bread that stuck to the roof of her mouth. Add to this her drive to change institutional food systems to be more hospitable, sustainable, and just, and the book crackles with ideas, inspiration, and creativity.

In this highly readable volume, she espouses what those of us in Food Studies know well: "Food is never just food" (58). For Maharaj, it was important that the organizational values also be present on every plate, even though it was often difficult to articulate those values. She worked with dieticians, chefs, serving staff, and administration to clarify their institutional values and manifest them in the food that was served. For example, at Ryerson, she emphasized that food was one of the ways the university could assure anxious parents of first-year students that it cared for their children, not only intellectually, but also physically and emotionally.

As much as Maharaj personally pushed for change in the institutions where she worked, she argues that "much of the responsibility for any change to institutional food services lies directly at the feet of government. In this province (Ontario), and many others, government budget cuts are largely responsible for the rapid deterioration of institutional meals" (225). She points out that institutional food can have enormous impact. Instead of buying prepared and packaged meals from giant food-service corporations that get reheated on site, she advocates earmarking funds to improve and sustain food services in Canadian institutions and developing public policy that connects these institutions to local agriculture, small business, and the local economy. This vision of "joined-up food policy" (MacRae 2011) uses food as a catalyst for local development, while opening the door to hospitality, sustainability, and social justice.

Maharaj also promotes investment to help institutions transition back to cooking from scratch. This move will require a government granting stream without which, she worries, change will not occur. While cooking from scratch at an institutional scale may seem a daunting process, she was able to accomplish it within her budget, please eaters, and end up with far less waste than the standard "industrial diet" produced.

Maharaj firmly believes that cooks can have an exponential impact on people through food. This is where the idea of social gastronomy enters the picture. For Maharaj, social gastronomy entails chefs using food to create social change by becoming activists and advocates for food and communities, such as happened at Foodstock in 2011, when the Canadian Chefs Congress spearheaded a fundraiser to protest the conversion of prime Ontario farmland into a mega-quarry.

> Social gastronomy is about using the values of the kitchen and dining room to animate other food spaces in a way that promotes justice, ecological stewardship of the land, and thriving communities. If sustainability and hospitality are not present, it's not social gastronomy (209).

Maharaj moves seamlessly from concepts such as social gastronomy, to practical problems on the ground, to policy advice for government and institutions. I could find nothing to fault in her approach to, and treatment of, institutional food. She is one of those public intellectuals who knows her field inside out and communicates her knowledge with flair, ease, and confidence.

In the end, Maharaj reminds us that, as human beings, food is our common denominator. In taking back the tray, we take back dignity, hospitality, sustainability, and equality, we reinvest in the land and those who work the land, and we nourish people we love and people we have never met. Her final contribution to our understanding of institutional food is a set of tasty recipes she has used in her work that includes an egg-salad sandwich filling that is original, bright, and nourishing—just like her book.

Jennifer Sumner teaches a course called The Pedagogy of Food at OISE/University of Toronto and is the co-editor of Critical Perspectives in Food Studies (with Mustafa Koç and Anthony Winson) and the editor of Learning, Food and Sustainability: Sites for Resistance and Change.

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La Revue canadienne des études sur l'alimentation

Book Review

The long table cookbook: Plant-based recipes for optimal health nourishing food for small and large gatherings

Amy Symington Douglas and McIntyre, 2019, 244 pages

Review by Dr. Japji Anna Bas, Jake Robitaille, Alejandro Bas

The not-so-long table: a narrative, collaborative, and personal exploration of a book on cooking for gatherings in a time of physical distancing

Launch of the collaborative review

Japji:

In the early days of the pandemic, during the first wave, I eagerly accepted the opportunity to review Amy Symington's "Long Table Cookbook: Plant-based recipes for optimal health— nourishing food for small and large gatherings". As a food policy researcher with a focus on health and wellbeing and a background as the owner of a sustainable vegetarian restaurant, the fit seemed perfect. I would use the time at home with my children to explore the recipes and review the cookbook.

In reality, however, the day to day of being a single parent to two school-aged children going through remote learning in a global pandemic was a lot—*is* a lot—and the task of trying new recipes and hoping that my picky younger child would eat felt out of reach. I spent time exploring the cookbook, admiring the large, glorious, full colour images with longing... and a little dismay. I *wanted* to review the cookbook but simply had too much on my plate to manage it all. Ever a proponent of community solutions, I had an idea—I proposed a barter with Jake, an aspiring young vegan chef in my neighbourhood, and he agreed enthusiastically. He would cook from the cookbook, share the food with me and I would offer him whole person transformational

coaching as part of my practicum for my COVID-career pivot. A collective solution for the review of a cookbook on sharing food.

Jake:

In the days leading up to the pandemic, my relationship with food was questionable at best. When the wave of patrons ceased and my employment was put on hold, food and I were sleeping on the opposite side of the bed. Months passed and the burning passion I once held for nourishment turned to cold-hearted efficiency, blending two thousand calories so I could be done with eating for the day. When the opportunity to participate in this project and give feedback as a chef was extended to me, I was elated. Food and I decided to try again.

This book consists of recipes for a wide variety of seasons and celebrations and includes measurements for gatherings of six or twenty-four people. In the age of physical distancing, the ability to scale recipes back to six servings was incredibly helpful. The recipes range from extremely simple (such as the chocolate dipped oranges or granny smith apples with date caramel) to vaguely intermediate. Many recipes include straightforward tasks that can be delegated to children or guests who are adamant about assisting in the kitchen. Definitions of culinary terms are provided, instructions are clear, and specialty ingredients are often listed as optional. This creates an atmosphere of accessibility, which is crucial for the success of the plant-based food movement.

Alejandro (age 11 at time of tasting, age 12 at time of writing):

The start of the pandemic was a long time ago and, to be honest, I don't really remember how I was feeling about food at the time. I do remember feeling confused about how to feel about the pandemic. When I first found out about the collective cookbook review project, I was a little hesitant—would I even like the vegan cooking? But since it was a pandemic and there were not a lot of new things to try, I was open to trying the food and agreed to become a taste tester for the project.

Cooking process and taste evaluation

Sweet potato and tahini soup

Jake:

The review process started in late September, and I thought it would be best to begin with something warm and comforting that incorporated in season ingredients. The sweet potato and tahini soup was the ideal candidate. This soup takes about an hour to complete, has four steps in the cooking process, and an additional five steps if you choose to make the garnishes suggested.

It is a low hassle first course or midweek meal option that leaves you energized. The dish is incredibly creamy despite the use of low-fat coconut milk, but in terms of flavour I found it to be muted. With only half a teaspoon of salt for twelve cups of soup, it is easy to understand why. I recommend seasoning the onions with salt at the beginning of the cooking process and bringing the amount of lime juice up from a quarter cup to a third to cut through the fattiness of the dish. Overall rating: 6.5/10

Japji:

By text, Jake had said that the soup felt "more like a queso dip than a soup. Intentionally unsalted to make room for tortilla chips." With low expectations, I actually left it to sit in the fridge for a couple of days. When I finally did taste it, I was pleasantly surprised and wrote back, "Gotta be honest, I like the soup *way* more than I thought I would." This leads me to wonder if the soup may have matured in that time, as soups and stews often do. In any case, I gave it a 7.5/10.

Alejandro:

I remember being surprised about how good it was and I also remember being someone who liked it more than all the adults. I give it an 8/10.

Cinnamon bun cookies

Jake:

These cookies are deceptively simple. There are three components: dough, cinnamon filling, and cashew icing. Each component shares multiple ingredients, and every ingredient is commonly found in a plant-based person's kitchen. Perfect for when you need to limit the number of trips you take to the grocery store. With twenty minutes of active prep time, twenty minutes of freezing the dough, and twelve minutes of baking, this recipe is practically effortless. The only difficulty that arose was rolling out the dough, but that was due to limited counter space. These cookies are also quite filling, which is helpful, otherwise I would have eaten the entire batch. Overall rating: 8/10

Japji:

Having tasted several other recipes from the cookbook, there had been a recurring theme—11year-old Alejandro was consistently more enthusiastic about the taste of the food than Jake (the vegan chef). I, the former vegetarian cafe owner, also consistently rated the food slightly lower than Alejandro. With the cinnamon bun cookies, for the first time, we were all pleased and gave them an 8/10. Of the batch that came to our home, I only ate one and Alejandro ate the rest.

Spiced banana cakes with orange frosting

Jake:

I really wanted to like this recipe, and after having tried the Cinnamon Bun Cookies I had such high hopes. I was ultimately let down. Most of the fat in this recipe comes from the cashews in the frosting, and the lack of fat in the cake causes it to be denser than desired. In addition, the taste of the cake was overwhelmingly metallic and astringent. The use of unsweetened chocolate and unsweetened soy milk would not be an issue if there was more sugar in the recipe to balance it out. I was sure there was an issue with my oven based on the batter tasting better prior to being baked, but to my surprise, the finished product was well received by many other people. Overall rating: 4/10

Japji:

Like Jake, this cake was the least liked item from the cookbook. I found it bland and dry and only moderately improved with the frosting. That being said, when eaten in equal parts cake to icing, it was enjoyable... I am a fan of cashew butter. With extra icing, I gave it a 6/10. Alejandro, on the other hand, just did not like it. He rated it a 5/10—the lowest he rated any of the foods we tried from the cookbook. Because we tried the cake at a time when we were in a bubble with two other moms in our building, I shared it with them. Interestingly, they both really liked it and gave it an 8/10, though one of them felt that the icing did not suit the cake.

Lentil and spinach pot pie

Jake:

This is a delightful main course that makes you feel good before you have had the pleasure of eating it and is sure to put any questions of protein deficiency on a plant-based diet to rest. However, the pleasure of eating it comes more from the satisfaction of making pie dough from scratch than the flavour. The spelt flour crust was slightly chewier than expected and had an earthy flavour that, while complimentary to the filling, felt a bit one-dimensional. I found myself seasoning at the table with extra salt, pepper, and nutritional yeast. The recipe is a bit prep heavy but makes for a great team building exercise if you are lucky enough to share a living space with someone. Overall rating: 7/10

Japji:

The pot pie was fantastic. I could have eaten it for dinner for several days straight. An easy 8/10. But the best thing really was my son's response. He did not realize that it was part of the cookbook project when we had it for dinner... Our conversation about the pie says it all:

Alejandro: "Mom, this is really good, but it would be better if it had just a little bit more meat." Mom: "It would be better if it had a bit more meat?"

Alejandro: "Yeah. But, like, just a little. Like a little, little bit more meat. It's almost perfect."
Mom: "Sweetheart, it's vegan--it doesn't have any meat."
Alejandro: "... wait! What? This doesn't have any meat? Wait! Is this part of that cookbook thing? Wow. It's really good. Still, it would be a bit better if it had more meat."
Mom: [laughing] "So, a little bit more than none?"
Alejandro: "Yeah, but it's still like an 8 or a 9."

Child who views "more meat" as a blanket way to "improve" a dish loves it—vegan lentilspinach pot pie for the win!

Conclusion

Jake:

Having worked in professional kitchens for a number of years, I wanted to approach the preparation of these meals as I would dinner service. While cooking I imagined the pressure to pique the interest of hungry guests, awaiting the fragrant fare they had yet to be acquainted with. I thought of potential hosting duties and how a recipe would interfere with or yield to them. While plating I wondered how likely it would be that a family member or friend would be impressed enough to ask for the recipe, or how I would feel about serving this to an experienced cook. After tasting a number of these recipes and gauging how they made me feel, I found this method to be in direct conflict with the main goal of the book.

Cooking this food is incredibly easy. Even the more labour-intensive dishes are a breeze to prep for and wash up after. As a result, the end product is often one you would expect from a simple dish. The strength of these recipes comes from their ability to show the people who care about you that their affection is reciprocated by providing nutrient-rich food that subtly wishes them a long and happy life. Cooking this food made me feel more appreciative of the few people I was fortunate enough to see on a regular basis during this difficult period.

Japji:

The task of reviewing a cookbook for social gatherings during a time of physical distancing presented unique challenges. Fortunately, our use of a collective approach, beyond being a creative solution, offered opportunities for a novel approach—a multi-person cookbook review. In turn, this novel approach offered unanticipated findings. All three of us were surprised to find that the vegan chef was the most critical and it was the meat-eating Alejandro who most enjoyed it. In offering a range of perspectives on the experience of the food we have, we hope, offered additional insights.

Dr. Japji Anna Bas is a Food Policy, Wellbeing & Equity Expert and Transformational Coach at Flourish Wellbeing Sass. She launched her career as the owner and manager of a local, sustainable full-service vegetarian cafe in Halifax, the Big Life Whole Foods Cafe. Over the years Dr. Bas has worked on food issues with Oxfam Canada, LifeCycles, the Ecology Action Centre, Nourish and Ryerson's Centre for Studies in Food Security. Japji is also an avid cook, a playful yogi, a dance floor mama and mother to two spritely children.



La Revue canadienne des études sur l'alimentation

Book Review

Thinking with soils: Material politics and social theory

Edited by Juan Francisco Salazar, Céline Granjou, Matthew Kearnes, Anna Krzywoszynska, and Manuel Tironi Bloomsbury Academic, 2020: 204 pages

Review by Kaitlyn Duthie-Kannikkatt

Following increased attention to the crisis of global soil degradation, the United Nations declared 2015 to be the International Year of Soils. The Year of Soils was launched with the release of a report published by the Intergovernmental Technical Panel on Soils demonstrating that the majority of world soil resources are in either fair, poor, or very poor condition, posing a serious threat to the future of global food security (FAO, 2015). Raising awareness and prompting action on this threat was, and continues to be, a critically important undertaking, to say the least. But for too long such efforts have failed to achieve meaningful action on addressing the crisis of soil exhaustion and collapse. What we are left with is an alarmist narrative that uplifts technoscientific conservation approaches while simultaneously disempowering those in living relationship with soil throughout the world.

This disconnect, argue the editors of this thoughtful new volume, is the result of decades of theorizing soil exclusively in the realm of the natural sciences. When we fail to consider soil as an emergent outcome in a long and ongoing socio-political historical process, conservation efforts reflect purely technocratic solutions and therefore come up short in what they can accomplish in terms of meaningfully healing our relationships with soil.

Drawing on the pioneering work of Maria Puig de la Bellacasa, the contributors to *Thinking with Soils: Material Politics and Social Theory* argue that it is time for social scientists to deepen our own understanding of soil. We need to consider how to *think with* soils and recentre the set of embodied relationships that lie at the heart of this lively world beneath our feet. The only way to confront the ecological crisis we face is to decolonize our narratives of conservation and reimagine it as an ongoing process of socioecological entanglement in which humans and non-humans are active agents. The collection succeeds in prompting deep and

meaningful consideration of what it might mean to live into our relationships with soil, and how sustained reflection on the material politics of soil might shift the way we think about and act on the so-called soil crisis.

The authors in *Thinking with Soils* consider this relationship from a variety of perspectives. The first few chapters work to un-theorize soil as purely a natural resource, easily divorceable from the historical processes of social life, and re-situate it within a broader and ongoing trajectory of soil-human alienation. Chapters one to four begin with unpacking the colonial modern belief in a separation between humans and nature (Escobar, 2018) and the productivist appropriation of soil for capitalist agriculture (Puig de la Bellacasa, 2005). It is here that our understanding of soil as something intimately connected with the land and our relationship with it both began to erode. Engel-Di Mauro and Van Sant expand on this separation by exploring Marx's notion of the metabolic rift in connection with soil, arguing that this rift has made possible (or, attempted to make possible) the commodification of soil governance continue to further distance soils from land. In particular, Kon Kam King and Granjou examine how digital soil mapping takes soil conservation out of the hands of people on the ground and into an exclusively techno-scientific realm that erodes the set of relationships that created the soil in the first place.

Later chapters explore soil relationships in a variety of place-based contexts. Together, these weave a colourful fabric reflecting the diversity of entanglements that emerge when we think with soils. Kryzowszynska, Banwart and Blacker consider how farmers live in relationship with soil through years of attentive observation. Bertoni explores how attempts to plan for the generation of soil on Mars fall short in their theorization of soil as a precise formula to perfect rather than a set of relationships difficult to replicate in an artificial context. Meulemans follows a group of urbanites as they reclaim areas paved over by the forces of development by harnessing the power of those 'freak' urban organic materials to generate soil. Salazar and Dodds unpack the violent colonial settlement of the north in service of the nation state, connecting this pattern of harm to our reluctance to act on climate change that will primarily affect Indigenous peoples who make their home with these marginalized arctic soils and territories. Together these stories paint grounded visions for a future of soiled alterity, where a new story about soil can be told that resists its imposed conceptualization as dirt, separate from the land and landscapes in which it is embedded and understands soil as both making and being made in a constantly evolving set of relationships among human and non-human beings.

Thinking with Soils is the result of a gathering of scholars and activists concerned with the state of soils but critical of efforts to advance conservation through commodification. Anyone disquieted by a path to ecological healing via carbon offsets, payment for ecosystem services, and other hallmarks of the green economy will find it a useful contribution to these ongoing debates. While few chapters approach soils from an explicitly interdisciplinary lens, the collection is diverse in its geographical representation and one would hope that this volume might serve as a conversation starter between social and natural scientists with a demonstrated

commitment to evidence-based conservation approaches. Furthermore, those considering their own path to decolonizing relationships with the land amidst impending ecological destruction might find inspiration and solace in the varied ways that those whose stories are told in these pages have gone about getting to know the soil under their feet and the new opportunities that process has enabled. Those new to considering the materiality of nature and the politics of modernity may find some of the social theory underlying these ideas a bit dense and illexplained, but the volume very effectively holds space for a diversity of theoretical and practical approaches to cultivating human-soil relationships, so much so that anyone looking to dig deeper into their relationships with place can find something compelling and meaningful here.

The introduction closes with these thoughts from Donna Harraway (2016): "It matters what we use to think other matters with; it matters what stories we tell to tell other stories with; it matters what knots knot knots, what thoughts think thoughts, what descriptions describe descriptions, what ties tie ties. It matters what stories make worlds, what worlds make stories." The ways in which the authors in this volume have storied soils is critical work for deepening our collective understanding of the work to be done to heal our separation with nature. Amidst the urgency of the ecological crises we face, taking time to centre relationships among human and non-human agents and do the slow work of cultivating soil might feel inadequate. But as the authors eloquently convey, this is the necessary work. The stories we tell matter and these stories are critical to our collective efforts to make other worlds possible.

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Book Review

Green meat? Sustaining eaters, animals, and the planet.

Edited by Ryan M. Katz-Rosene and Sarah J. Martin McGill-Queens University Press, 2020; 256 pages

Review by Rachel Mason

I have been a vegetarian since the last millennium, but my partner raises goats for milk and meat, so I am well aware of the tensions between those who think meat will destroy the planet and those who believe that grass-fed livestock can heal it (and of course those who prefer not to think about the issue at all). I was therefore delighted to come across "*Green Meat? Sustaining Eaters, Animals and the Planet*", a book that grew out of discussions at the annual meetings of various academic societies in 2016. Edited by Ryan M. Katz-Rosene and Sarah J. Martin, *Green Meat?* brings together a diverse collection of perspectives to explore the relationships between meat and the environment, while tackling the thorny question of whether and how meat can be part of a sustainable diet.

Helpfully, the Introduction sets up a framework of three approaches to sustainable meat: "Modernizing" (efficiency improvements through technology), "Replacing" (moving to alternative proteins), and "Restoring" (replacing industrial meat with socially, culturally, and ecologically sound systems). The contributions in the book mainly deal with the latter two categories, in particular the Restoring model. For example, in the Restoring vein, Ryan M. Katz-Rosene (academic and farmer) proposes that pasture-based livestock are far more climatefriendly than industrially-raised animals, while regenerative agriculture advocate Sheldon Frith argues that farmers' experience shows that holistic planned grazing is good for the environment, even if scientific evidence is scarce.

From my own perspective, a few chapters in *Green Meat*? stood out. First, Caitlin Scott's "Does Meat Belong in a Sustainable Diet" discusses who exactly is defining sustainable diets and creating the narratives surrounding them. Scott finds that much is being left to academics, civil society groups, and business, with governments playing a limited role so far. While alternative protein companies are quick to adopt research showing the detrimental environmental effects of meat, the meat industry is, of course, keen to construct counternarratives based on

efficiency and nutrition, while grass-based producers attempt to distinguish their products from industrial meat. While *Green Meat*? aims to complicate the notion that meat is unsustainable, "eat less meat" is only one of a number of competing narratives (as witnessed by hashtags and slogans like #yes2meat, "it's not the cow it's the how", "less but better", and #wownocow). Scott's chapter—aided by Tony Weis's blistering critique in "Confronting Meatification" — provides an important reminder that, despite some anti-meat messaging, powerful forces are still pushing for consumption to be maintained or increased.

In "Eco-Carnivorism in Garden Hill First Nation", Shirley Thompson, Pepper Pritty, and Keshab Thapa take the reader to an isolated Indigenous community in northern Manitoba. In Garden Hill, many Indigenous people eat meat-heavy diets of moose, rabbit, beaver, fish, and other animals, as well as locally-raised poultry and vegetables. The authors argue that these traditional diets are socially and environmentally sustainable and might be economically sustainable under a system of regulation and subsidies that allowed Indigenous foods to fairly compete with imported, commercial products. Garden Hill is a clear demonstration that sustainable diets must be context-dependent and responsive to social and cultural needs, and the maps of the Garden Hill food- and water-sheds in this chapter paint an intriguing picture of how that might look in one particular situation.

Firmly in the realm of "replacing meat", Lenore Newman's "The Promise and Peril of 'Cultured Meat" gives a lively account of recent developments in cellular agriculture (lab-grown animal products) and plant-based meats (animal-free meat analogues), noting that cellular agriculture has already been used for decades to produce insulin and rennet. In Newman's telling, these technologies hold the promise of eliminating animal suffering from the food system without requiring people to reduce or end their consumption of animal products (which, as is repeatedly stated elsewhere in the book, may be an unrealistic goal). The chapter outlines the many fascinating and unanswered social, ethical, and environmental questions surrounding the development of meat-replacement technology, and the reference list will be a valuable resource for those wishing to understand the arguments in more depth.

In "The Structural Constraints on Green Meat", Abra Brynne addresses some of the practical barriers to sustainable meat (assuming that sustainable equates to small-scale, local production). Having been part of a "meat team" that helped small-scale British Columbia (BC) abattoirs obtain licenses under a new set of standards and inspection requirements, Brynne recounts how these regulations led to the closure of many facilities that formerly catered to local livestock farmers. The chapter also puts these changes into the wider historical context of meat industry consolidation and the power of large processors. While those themes will be broadly familiar to many readers, Brynne's chapter gives a detailed and illuminating account of changes to BC's particular regulatory regime (brought about at least in part to allow large producers access to export markets) and how these changes affected the lives and livelihoods of smaller farmers and processors.

In the final chapter the editors do a good job of bringing together all these threads and attempting to chart a path forward. At the same time, *Green Meat*? raises as many questions as it

answers—and I mean that in a positive way. For instance, the book as a whole, and Alexandra Kenefick's chapter in particular, encourage us to think deeply about the "labour, time, resources, life, death" (p.144) that are involved in bringing meat to the table. So, how much of this should we expect from people outside the food movement, and how should we be talking about food issues with them? Another common thread is context-dependence; how do you create space for local solutions in a global food system dominated by powerful actors? These seem like good questions for further reflection.

However, despite its many useful interventions, there are two issues that I wish had been tackled in *Green Meat?* First, is the question of scale. While it is repeatedly acknowledged that we probably do need to eat less meat, the question of "how much can we have?" is not addressed in any meaningful sense. In fact, Gwendolyn Blue's chapter argues against global, quantitative approaches to meat and climate change, making the very valid point that this framing privileges certain perspectives and fails to consider geographical and cultural contexts. Although I agree that figuring out what makes sense in terms of both local social, cultural, and environmental conditions and, say, the global carbon cycle is extremely complicated in terms of both mathematics and power relations, it also seems extremely essential, and would have been a great subject for this book.

Second, there is a conspicuous absence of discussion related to the ethics of eating animals. The scope of treatment is confined to pointing out that economic realities have always required that "the value of animal products covered the cost of maintaining those animals" (p.244). Especially given that animal welfare and rights are barely a footnote in "conventional" sustainability analyses, addressing these conceptually and ethically fraught issues in this thoughtful collection would have been a welcome addition. Though, to be fair, no single book can tackle everything. These minor critiques aside, *Green Meat*? remains a worthwhile addition to the conversation about meat and sustainability.

Dr Rachel Mason is a research scientist at the University of Maryland where she works on changes in global nitrogen cycling and links between agriculture and the environment. This a distinct change of field for Rachel - after a PhD in astronomy, she spent several years as a scientist at some of the world's major observatories, before becoming increasingly preoccupied with the question of "How can we have good food, happy people and animals, and a healthy environment – preferably all at the same time?". As well as the biophysical underpinnings of sustainable agriculture, Rachel is fascinated by the ways in which we frame and debate issues in the food system.

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