Growing Food and Social Change: Rural Adaptation, Participatory Action Research and Civic Food Networks in North America

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A thesis submitted to the Faculty of Graduate Studies of the University of Manitoba in partial fulfillment of the requirements of the degree of

DOCTOR OF PHILOSOPHY

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ABSTRACT

The goal of this research was to better understand how farm families adapt to global environmental and political-economic change to secure their livelihoods and to build more resilient food systems. The dissertation reports on five iterative cycles of participatory action research that resulted in a diversity of pragmatic, conceptual and theoretical outcomes. I first examined how farmers adapted to the BSE (bovine spongiform encephalopathy) crisis in the Canadian Prairies, identifying three general adaptation types: 'exiting' from beef production or agriculture; 'enduring' through adaptations that seek stability; and 'innovating' to pursue new opportunities, including direct farm marketing and cooperatives as important forms of grassroots adaptation. Next, I reported on a five-year action research project that developed a "civic food network" in rural Manitoba, which emerged in large part as a response to the BSE crisis. This case study examined the tensions, politics and opportunities that arise through the intensely socially embedded relationships that underpin these grassroots innovations. I argue that CFNs must productively engage with difference if they are to reach their full potential for rural development and social change. Next, I examine the barriers that confront the local food movement, especially as they relate to food safety regulations. A series of short articles and videos are presented that were used to buttress the political efforts of our participatory action research team to advocate for scale-appropriate regulations in Manitoba. Next, I examined my PhD research as a whole to illustrate how participatory action research transgresses "academic" and "non-academic" knowledge and space to mobilize knowledge in intentional processes of social transformation. Through this research, we developed three Knowledge Mobilization strategies. These

include: Using transmedia to exchange knowledge *via* multiple platforms and mediums; "setting hooks" to draw together diverse knowledge communities; and layering to deliver knowledge at varying levels of detail and complexity. Finally, through a performative autoethnographic script, I deconstruct graduate education, the dissertation and the professionalizing discourses that impede a vibrant "public scholarship" in Universities. As a whole, this participatory action research simultaneously argues for and also embodies democratic approaches to research and to agriculture and food practice and policy.

ACKNOWLEDGEMENTS

This thesis is but a snapshot of a wide diversity of scholarly labor contributed by a supportive team of farmers, community organizers, academics, activists and students that made this action and research possible.

Thank you to my best friends - Jenny, Clara and Finn. Jenny, through the ups and the downs, your support has been unwavering. Never did I detect an ounce of doubt even when I was suffering from intense bouts of imposter syndrome.

I am deeply grateful to my advisor, Stephane McLachlan, for providing a rigorous, yet flexible and supportive environment that allowed me to explore my own interests and to develop my own voice. Stef, you often indicated that you considered me to be as much a colleague as I was your apprentice. This humility, of course, downplays the degree to which your guidance has shaped my thinking, my politics and my life path. Yet, your collegial approach to mentorship reflects the critical pedagogy that underpins your teaching style. By breaking down the conventional roles of teacher-student and mentor-mentored, you have cultivated a space for co-learning, dialogue and mutual respect. I only hope to carry forward this approach in my own teaching and mentoring.

I am grateful to my thesis advisory committee: Jo-Lene Gardiner, Jeff Masuda, and Shirley Thompson. Although Jo-Lene was prevented from formally participating on my advisory committee by university policies after I transitioned from the Masters to the PhD program, her active and continued input into this project and into my intellectual development was immense. Thank you to Jeff for the always-critical eye in my research program and for your advice and guidance in regards to my scholarly career. Shirley, your enduring support and student-centered approach to mentorship provided me with confidence to pursue my research on my own terms. Thank you also to Nancy

Rosenberger for warmly hosting me during my year of research at Oregon State University and for your continued support.

Thank you to Jen Brady, Ryan Brook, Valentine Cadieux, Lydia Carpenter, Sarah Carson, Annette Desmarais, Charles Levkoe and Troy Stozek for helpful manuscript reviews. Thanks to Joey Goertz for providing a number of photographs included in these pages and to Natalie Baird for her brilliant assistance with designing many of the figures. Also, thanks to my companion travellers in the Environmental Conservation Lab who contributed their support, advice and labor to this project: Alam Ashraf, Dave Brophy, Greg DeJong, Laura Husak, Alison Jonk, Jaqui Kotyk, Alexis Knispel, Ian Mauro, Aimee McDonald, Dean Rennie Melissa Yestrau and Dave Vasey.

Thank you to Robert Guilford for opening your home to my family for two wonderful years living in the community that I now consider to be one of (a growing number of) second homes. Pam and Clint Cavers - thank you for your emotional and intellectual support through this long journey.

Thank you to my Mom and Dad for the wonderful foundation that you provided for me, allowing me to create and recreate myself in ways unimaginable to many.

Finally I acknowledge the generous support of the following funders: This project was funded by: the SSHRC Linking, Learning Leveraging project; the Manitoba Rural Adaptation Council (Agriculture and Agri-Food Canada); Manitoba Government Sustainable and Development and Innovations Fund; Heifer International Canada; a SSHRC and NSERC Operating Grants to S.M. McLachlan, a Graduate Capacity Building Grant from the University of Manitoba Transmedia and Justice Group; A PrioNet North American Training and Travel Award; a Manitoba Graduate Scholarship; a SSHRC Canadian Graduate Scholarship; the Manitoba Alternative Food Research

Alliance; and a Fulbright Student Scholarship. A more detailed list of grant funding that supported this research is provided in appendix C.

Dedication

For Dad.

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1 Introduction: Living Rural Communities and Environments

1.1 INTRODUCTION: RESEARCH CONTEXT

Over the last century, farming in North America has become increasingly input-intensive, mechanized, consolidated, and controlled by corporations (Hendrickson and Heffernan, 2002; McMichael, 2006; National Farmers Union (NFU), 2008; Winson, 1993). In Canada, the liberalization of agricultural policy has led to the systematic erosion of vital institutional supports for farm families through the removal of price-support programs, the retreat from publically-funded agricultural research and the dismantling of marketing boards (Ramsey and Everitt, 2001; Stefanson and Fulton, 1997). Without these supports, farm families have been exposed to the unfettered power of a highly concentrated agro-food industry (McMichael, 2006; Winson, 1993) and the vagaries of the weather and the markets.

Canadian agriculture policy is rooted in what is referred to as a 'productivist agriculture paradigm' where the predominant focus is to maximize food and fiber production. These policies have enabled the industrialization of agriculture by promoting scale intensification, laborsaving technologies, biotechnology and have defined progress in terms of efficiency, modernization and gross yields (Darku and Malla, 2010; Mauro and McLachlan; National Farmers Union (NFU), 2003; Qualman, 2010). Although this productivist model has predictably increased yield and efficiency at a national scale (Darku and Malla, 2010), the benefits of industrialization have been highly uneven. The narrow focus on productivism has been widely criticized for externalizing the environmental and social costs of industrial agriculture (National Farmers Union (NFU), 2003). The "get big or get out" mantra of the productivist paradigm is indifferent to the fate of farmers and rural communities. Thus, over the last three decades we have

witnessed a considerable consolidation and enlargement of agriculture holdings and the emptying out of the rural countryside (Boyens, 2001; Statistics Canada, 2013).

In the Canadian Prairies, agriculture is described as being in a state of chronic crisis (Bessant, 2007) that represents a deepening emergency for rural Canada as a whole (Anderson and McLachlan, 2012b; Bessant, 2007; Boyens, 2001; Epp, 2001; Qualman, 2005; Qualman, 2010). From 1996 to 2006, the number of farmers on the prairies declined by 19.6% (140,385 to 112,814) while average farm size increased by 19.6% (939 to 1169 acres) (Statistics Canada, 2006), leaving ever fewer farmers to manage increasingly large farms. With rising capital and input costs and falling farm prices, farm debt has almost doubled, from $14 billion in 1996 to $25 billion in 2006 (Statistics Canada, 2011). Over the same period, gross farm receipts rose from $14 billion to $18 billion, yet net farm income has failed to keep up. Indeed, the aggregate net farm income in the prairies in 2006 was negative $359 million (Statistics Canada, 2011). Although net farm income has since increased, almost one-third of farm families are still experiencing "chronic negative net farm income" (Statistics Canada, 2011). That the average farm produces enough to feed hundreds of families but struggles to earn enough income to feed its own household is an ironic symptom of a dysfunctional agro-food system.

Despite these challenges, family farming has historically been resilient as a mode of production (Brookfield, 2008). Farmers and their operations are accustomed to adversity and, indeed, are characterized by resilience and innovation (Anderson and McLachlan, 2008). They have a long history of adapting to change associated with technology, disease, politics, climate, weather, and globalization (Bradshaw et al., 2004; Mazoyer and Roudart, 2006; Winson, 1993) - each introducing a unique element of risk but many of which also present new opportunities for innovation.

In Canada, the dominant approach to supporting farm adaptation, promoted by industry and government, is one that advocates for increased technology adoption and other efficiency-utilization measures for farmers that align with the national productivist agricultural agenda (Qualman, 2010). However, Wilson suggests that this hyper-focus on agricultural productivism pigeonholes farmers and rural communities in a 'productivist trough' that limits adaptation options for farm households and thus undermines the resilience of rural communities (Wilson, 2010; 2012). Wilson, and others, argues that an alternative adaptation framework rooted in a multifunctionality paradigm would recognize the multiple productive outputs that are derived from agricultural holdings and rural space (Ibid.; Skogstad, 2012). The multifunctional adaptation paradigm represents an opportunity for farm households to diversify their livelihoods and to respond to changing societal demands for a more secure, sustainable and socially just food system (Renting et al., 2009).

There is some evidence of multifunctional agricultural policy in Canada, however the available programs are limited in scope and the policy-making framework is dominated by agri-business and commodity-groups, "to the exclusion of a broader array of civil society actors" (Skogstad, 2012). The vast majority of multifunctional adaptation occurs independent, and often in spite of the state, from the bottom up and through the ingenuity of individual farmer and collective, grassroots responses (Seyfang and Smith, 2007). Some of the latter responses include holistic management clubs (McLachlan and Yestrau, 2008); farmers markets (Connell et al., 2008); farmers market clusters (Beckie et al., 2012); food hubs (Blay-Palmer et al., 2013a), short food supply chains (Anderson and McLachlan, 2012a), farmer-to-farmer training networks (Laforge et al., In preparation); collective farmers marketing initiatives (Mount, 2011) and, as the focus of this

dissertation, Civic Food Networks (Renting et al., 2012). These organizations support farmers in pursing multifunctional adaptation by diffusing innovation, facilitating government support, educating the public and providing new markets for multifunctional goods and services.

1.2 Civic Food Networks

The concept of Civic Food Networks (CFNs) was recently developed by Renting et al. (2012) in the European context to describe grassroots initiatives that bring citizens together in cooperative locally owned and controlled food provisioning systems (Lamine et al., 2012; Psarikidou et al., 2012; Renting et al., 2012). In North America, CFNs have been discussed under the rubric of the social economy (e.g. Connelly et al., 2011; Wittman et al., 2012), food democracy (e.g. Hassanein, 2003) and civic agriculture (e.g. Lyson, 2004; Wynne, 2006). Rather than relying on conventional food system infrastructure and actors (Bloom and Hinrichs, 2011) citizens in CFNs cooperate to coordinate and control most, if not all, of the steps from farmer to consumer. These CFNs attempt to foster connections between farmers and consumers through more spatially and social proximate relations of exchange (Kneafsey, 2010; Morgan et al., 2006). Through the localization of food systems and the adherence to production protocols that promote connectivity, sustainable agriculture practices and humane animal husbandry practices (Lamine et al., 2012; Mount, 2011; Renard, 2003; Whatmore and Thorne, 1997), CFNs seek to deliver social, economic and environmental benefits for local communities (Sonnino and Griggs-Trevarthen, 2013).

Civic Food Networks emphasize a revitalized role for civil society, *vis a vis* the market and the state, in governing and organizing agro-food systems (Renting et al.,

2012). They are better attuned to the specificities of place and the needs of communities and are hoped to foster a more socially just, economically viable and environmentally sustainable food economy (Jarosz, 2008; Maye et al., 2007; McCarthy, 2006; Morgan and Prakash, 2006). Given the narrowing scope for participating in state and market governance, CFNs arguably open up new possibilities for the democratization of agri-food systems (Hassanein, 2003; Lang, 2007). As social economy organizations, they offer opportunities to generate both social and economic benefits for local communities (Beckie et al., 2012; Sonnino and Griggs-Trevarthen, 2013; Wittman et al., 2012). At the same time, these emerging civil society networks are also creating infrastructure through which to interface with the state to affect the policy environment for agriculture and food (Koc et al., 2008).

In North America, earlier approaches to "civic agriculture" were rural in orientation and emphasized the processes of collective problem solving as the foundation of resilient agrarian communities (Lyson, 2004). More recently, the focus has turned towards conceptualizing CFNs as being urban- and consumer- driven (Brunori et al., 2012; Franklin et al., 2011; Little et al., 2010; Renting et al., 2012). This emphasis on urban actors and citizen-consumers, however, inadvertently excludes CFNs that emerge from and prioritize rural spaces and the constitutive role that the citizen-farmer can play in driving CFNs, irrespective of consumer involvement. More generally, cooperation has received relatively little attention across the alternative food network literature, which generally overlooks the organizational processes and social relations that underpin collective problem solving, especially amongst farmers.

By working together in CFNs, farmers engage in more involved cooperative relationships, "'re-embedding' individuals into a more culturally rational food production

system" (Gray, 2008). Thus, in CFNs, economic and non-economic rationalities discipline one another through social-economic relationships that are governed by trust, mutual regard, reciprocity and equality (e.g. Lev and Stevenson, 2011; Milestad et al., 2010; Sage, 2003; Sonnino, 2007). This embeddedness creates a relational advantage whereby cooperators work together to overcome challenges associated with individualized approaches to quality food marketing (Watts et al., 2007).

However, the emerging literature on CFNs has generally reproduced an uncritical emphasis on the local scale as being comprised of homogenous and cohesive communities and assumed sites of consensus, cohesion and social embeddedness. Characterizations of CFNs thus often fall into the 'local trap' where advocates assume that localized grassroots food initiatives will be more democratic, just and sustainable than food networks that span greater distances (Born and Purcell, 2006). Yet, there is nothing inherent about the local scale and CFNs are not immune to perpetuating the injustices and problems associated with the industrial food system (Dupuis and Goodman, 2005).

Although CFNs are founded upon, and assumed to embody, these principles of social embeddedness, CFNs must also be contextualized the dis-embedding forces of the wider capitalist economy and socio-cultural differences that divide communities (Sayer, 1997). Hinrichs (2000, p. 296) cautions that social embeddedness should not be seen as the, "friendly antithesis of the market" but rather must be qualified with a consideration of how price (marketness) and self-interest (economic instrumentalism) also influence interactions (Hinrichs, 2000). These tensions reflect what has been referred to as the co-existence of old and new social movement orientations in the cooperative movement (Gray, 2008). As an old social movement, CFNs can be viewed, "along class lines as a means of surplus value retention by members" (Mooney, 2004) reflecting motivations

dominated by marketness and instrumentalism (Hinrichs, 2000). As a new social movement, CFNs can act as spaces to pursue, "a plurality of use values in the context of a diverse community," such as those related to relations of regard, multifunctionality, community building, environmental stewardship, social justice, and where other "organizational logics of action ... based in politics, ideology and culture," mediate purely class based interests (Buechler, 1995).

The hybridity of CFNs reflects the much problematized alternative-conventional binary where, in practice, individuals and groups often simultaneously incorporate strategies that are conceptually dichotomized as either alternative or conventional and as local and global (Holloway et al., 2007; Ilbery and Maye, 2005; Ilbery et al., 2005; Tregear, 2011). Indeed, CFNs as economic spaces are defined by the co-existence of conservative and radical as well as both self-interested economic and other-oriented social impulses (Smithers et al., 2008). These CFNs thus represent a hybrid outcome of the tensions that are derived from the various positionings, motivations and capacities of the actors involved (horizontal embeddedness) and their wider institutional context (vertical embeddedness) (Sonnino and Marsden, 2006).

Participants negotiate this hybridity as they work together to pursue a multiplicity of environmental, economic, social and political goals. Traditionally independent farmers (Allen, 2004; Gray, 2008) must work to accommodate the needs of others, share decision-making power and sacrifice a degree of autonomy to work towards a common vision. Farmers that come together in CFNs thus must negotiate their diverse needs and values, particularly in regards to what constitutes quality or good food (Sage, 2003) and good farming (Stock, 2007). In this context, there is a need to better understand how diverging values, needs, and priorities are negotiated in these alternative economic experiments

(DuPuis and Goodman, 2005), especially amongst farmers where a history of uneven rural development has given rise to different farming styles and worldviews (Johnsen, 2004; Owen et al., 2000).

The intentional focus of CFNs on civic governance and local control represent a normative emphasis on participation, inclusion and local control or a food democracy which has been argued to be the foundation of a more just and sustainable food system (Hassanein, 2003). However, civic governance occurs in the context of class, gender, racial, and culture based relations that complicate the processes of democratic governance. Unreflextive individual and organizational actions can lead to a 'defensive localism [which] tends to stress the homogeneity and coherence of "local", in patriotic opposition to heterogeneous and destabilizing outside forces, perhaps a global "other" (Hinrichs, 2003: 37). Indeed, CFNs are not impervious to the nativist, divisive, and xenophobic sentiments or to uneven power dynamics between different stakeholders. Thus, while democratic governance provides a potential mechanism to begin to address issues of fairness, equity, race and inclusion in CFNs, these are likely to remain contentious and perpetually unresolved as CFNs interact with these multi-scalar political and cultural dynamics (Winter, 2003; Allen, 2004).

Rather than a politics of place where a spatial local is valorized as more civic and democratic a priori, CFNs are more appropriately viewed as a politics in place where multi-scalar politics of globalization and localization are in constant tension (Amin, 2002; DuPuis and Goodman, 2005). Indeed, there is a range of 'external' influences on localized CFNs that shape their development including consumer culture, government policy, food safety regulations, as well as historically and culturally conditioned relational dynamics that contextualize the autonomy and agency of local CFNs. Such relational

dynamics between farmers in CFNs, and between CFNs and their broader cultural and political context, are poorly understood and there is a need for 'longitudinal and in-depth micro-analysis of case studies to analyze the evolutionary patterns and obstacles in their development' (Marsden, 2004).

1.3 Beginnings – Locating the Researcher

I was raised in a family of five, on a 1500-odd acre farm near the town of Cypress River in Southwestern Manitoba. We grew grain and oilseeds as cash crops using high intensity, mechanized, chemical intensive, biotechnology-dependent, zero-tillage production methods. My heterosexual-still-married parents raised three boys in a modest middle-class upbringing. My youth was 'typical' for a privileged white farm kid and I confidently plowed through middle and high school, coming out on the other end with decent grades, a bit of money, the support of a wide community of friends and family and a world of opportunity.

Despite the fact that rural communities and farming were undergoing a radical transformation through the processes of industrialization and modernization, I largely overlooked these changes through my formative years. Today, I am deeply critical of the dominant corporate food regime and I am passionately interested in being a part of creating a more just and sustainable food system. As a youth and as a young adult, this critical perspective was completely absent from my understanding of the world. So, when I look back, my politics and interests today are almost unrecognizable when compared to ten years ago.

Having moved to the city to further my post-secondary education, my experience as an undergraduate was underwhelming. This was, of course, in part a reflection of my

own choices, but also reflected the nature of the education I encountered as an anonymous student. The courses, in part, largely reflected Paulo Freire refers to as "banking education" where teaching is treated as a process of depositing information into passive students (Freire, 1970). Indeed, my time as an undergraduate student was mostly spent memorizing and regurgitating facts and figuring out the easiest and most effective way to get a decent grade. I rarely encountered a radical idea, was almost never encouraged to think critically about the wider political system and had few authentic opportunities to develop my own ideas or to relate the course material to what mattered most to me. I ended up with an "advanced" degree in psychology. There was nothing about psychology that grabbed. In the end, it was largely 'just a degree' and there is little about my undergraduate degree that informs who I am or the way I think today.

Most of the learning from my undergraduate degree that has stuck with me today was derived from my extra-curricular participation in student governance. Outside of classes, my experience as a social programmer and in various leadership roles in student government allowed me to further develop the values and competencies that I did pick up in my childhood – that is a strong work ethic and a commitment to participating in and building community. Yet, this work too was apolitical and more about building community than about overt politics. I was more interested in applying and developing skills in communication, leadership and planning and, indeed, these skills serve me well today as a graduate student. I was, and still am, passionately committed to building community, but at this point, I still eschewed taking overtly political positions or pursing any form of activism.

After I finished my undergraduate degree, I worked for a non-profit environmental industry organization and quickly became frustrated and disillusioned with

the hypocrisy of environmental consultancy and the hierarchy working under a board made up of mid-level managers in the environment industry. Through this work, I met an instructor at the University of Manitoba named Kristina Hunter who suggested that grad school might be a good fit. Seemed like a good idea – I could put off the real world again and bury myself in the familiar comforts of the academy. Kristina knew I was interested in rural issues so connected me with Stephane McLachlan, who would become my PhD advisor. He immediately plugged me into a project where I would evaluate how farmers adapted to the BSE crisis in Canada, which eventually would become the first chapter of this dissertation. But before I started into the program, Stef suggested that it would be useful to take a travel course that he taught to better wrap my head around the issues.

The course was called Living Rural Communities and Environments and involved spending 10 days living in the community of Clearwater learning from farmers, community organizers and rural residents about agriculture and rural communities. Going into the course, I didn't expect much – I grew up in a rural community -, so how much can I learn from a course about rural communities? Looking back, my experience in Clearwater literally changed my life and was truly a transformative learning experience. It was during this course that I was first prompted to intentionally deconstruct my understanding and experience of rural communities and of the state of agriculture in the Canadian Prairies. This learning was not delivered through the words of an expert professor from a pulpit at the front of a classroom, but rather through the expert teachings of a collection of farmers and rural residents who were eager to share their knowledge with the students. Seeing the rural landscape through their lives provided a completely different perspective on rural communities that was invisible to me as a disinterested youth. Their stories made visible to me the deleterious impact of corporate-

industrial agriculture and the need for change. I also learned about a diversity of alternative approaches to agriculture, and to community organizing that resisted and offered a hopeful alternative to corporate agriculture.

This experiential learning moment also clued me into the notion that *to experience* and *to "live"* rural communities was an incredibly important strategy to learn about how these communities worked and to ground my understanding of the broader cultural and political economic context. Indeed it was at this moment that I began to explore participatory action research as a way to "do research" and, indeed, as a method to create and use knowledge that could contribute to positive social change in agriculture and in rural communities. During the course, I formed a number of relationships with community members that would form the basis for my dissertation research project and that would develop into lasting friendships and ongoing partnerships. Over the past six years, I have spent a great deal of my life living and working in Clearwater. I have grown immensely through the relationships with my co-researchers, often sitting around a kitchen table or in a heated meeting as we learned through, argued about and celebrated our cooperative action research endeavors.

Over the last six years I have also continued to participate as a teacher in the Living Rural Communities and Environment course. Each year has served to reinforce my commitment to community engaged research and pedagogy and to deepen my/our analysis of these 'living rural communities and environments'. This, now longstanding, community-engaged research and teaching program has convinced me that research can and should engage fully with communities in mutual processes of self- and social- change. I believe that community-university partnerships are most effective when rooted in a critical pedagogy that challenges and transgresses the boundaries that divide communities

and universities, lay-expert knowledge, written-visual-oral understandings, teachers-student and teaching-research. By deconstructing these hierarchies and creating space for mutual action and learning, we can all participate as co-researchers and co-learners in an effort to better understand the world by intentionally transforming it for the better.

1.4 Participatory Action Research Approach

Increasingly, there have been calls for community-engaged research that simultaneously advance our understanding of agriculture and food systems and contribute to social transformation (Blay-Palmer et al., 2013b; Carolan, 2013; Friedland, 2008, 2010; Hinrichs, 2008). These strands of community-based research reflect the broader scholarly traditions referred to as public sociology and public geography (Burawoy, 2005; Fuller and Askins, 2010), as a transformative research paradigm (Creswell, 2013) and as participatory action research (PAR) (Greenwood and Levin, 2007). This dissertation recounts the first six years of an ongoing PAR project based out of the Harvest Moon Learning Centre in Clearwater, Manitoba.

Participatory Action Research represents a pluralistic orientation to knowledge mobilization that takes a cyclical approach to research whereby action leads to reflection that informs further action (Kemmis and McTaggart, 2003). Action researchers work, "in close connection with a visible, thick, active, local and often counter-public" (Burawoy, 2005) through their teaching (Freire, 1970), their research endeavors (Pain, 2003) and in their everyday lives (Cloke, 2004). Reason and Bradbury define action research as,

> *A participatory process concerned with developing practical knowing in the pursuit of worthwhile human purposes. It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their communities (Reason and Bradbury, 2008)*

As such, PAR is embedded in a transformative research paradigm (Creswell, 2013), which involves conducting research with communities in deliberate processes of social transformation in the pursuit of social justice and community resiliency (Greenwood and Levin, 2007; Kemmis, 2007; Mertens, 2010). Researchers intentionally empower communities through tangible and reflective collaborative projects. Transformative research "provides a voice for these participants, raising their consciousness or advancing an agenda for change to improve their lives" (Creswell, 2013, p.10). Thus, PAR necessarily entails a normative position about what constitutes positive social change (Charles, 2011), in this case, the democratic development of alternatives to corporate-industrial agro-food system.

My role as a PAR researcher in this project was not as a privileged expert who produced and extracted expert knowledge. Rather, I served as facilitator of reflexive praxis that valorized and extended multiple knowledges through iterative cycles of inquiry. In PAR, academics and community members collaborate as co-participants, co-learners and/or co-activists (Kitchin and Hubbard, 1999) through processes of identifying problems, collecting and analyzing data and putting knowledge to use in the community. Thus, PAR generates

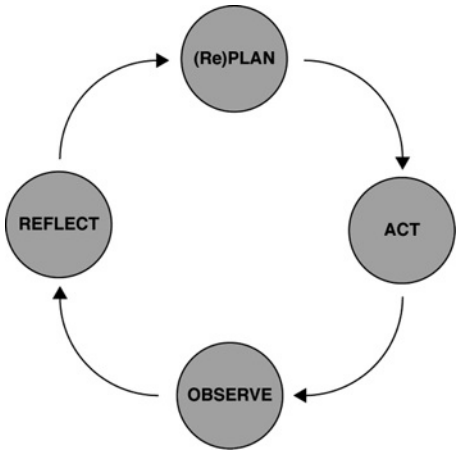

Figure 1.1 - The four phases of participatory action research.

research outcomes or "products" (Fine and Torre, 2008) that contribute to immediate pragmatic outcomes in communities as well as to longer processes of social transformation and grassroots innovation while also contributing to the success of any academic ventures.

Ultimately, the quality, impact and value of PAR are reflected in the "enduring consequences of the research for self, persons and communities" (Bradbury and Reason, 2006). Thus, PAR researchers must construct knowledge that is, first, immediately useful in the context of the study and, second, that develops concepts, frameworks, narratives and theory that can inform social change in other contexts (Herr and Anderson, 2005). In PAR, the conventional separation of research, such as fieldwork, analysis, theory building and knowledge application are thoroughly blurred where there is a cyclical "embeddedness of means in the ends" (Chevalier and Buckles, 2013) as well as embedding ends within the means (Ward, 2006). Thus, each outcome of PAR in turn becomes an input into the next cycle of inquiry in an ongoing process of learning, action and transformation.

1.4.1 Cycles of Action Research, Goals and Objectives

The dissertation is presented in a chronological order, reflecting recommendations to frame PAR dissertations and research reports as a journey and a process of discovery that unfolds through iterative cycles of action inquiry (Davis, 2007; Fisher and Phelps, 2006; Winter, 1996). This "diachronic" form of representation (Polkinghorne, 1997) more accurately captures the cooperative and iterative learning process that defines PAR (Greenwood and Levin, 2007). This dissertation also unfolds from a broad-scale, generalized and more detached approach to research to one that becomes increasingly localized and participatory and then reflective in orientation.

These thesis outcomes are presented as a spiral of interactive cycles of action research where, "each cycle increases the researcher's knowledge of the original question, puzzle, or problem and, is hoped, to lead to its solution" (Herr and Anderson, 2005). Each cycle of inquiry was made up of four phases (Figure 1.1): a) identifying a problem and planning an action intended to bring about a desired change; b) undertaking action to address the desired change; c) observing the consequences of this action; d) and reflecting on the meaning of these observations to inform the planning of future action (i.e. the next cycle of inquiry) (Kemmis and McTaggart, 1988). Thus, as the research process unfolded, we followed emerging 'leads' through the iterative cycles of acting, observing, reflecting, planning and acting again. In this way, the methodological trajectory and the specific research questions were not preordained, but arose in response to the needs of the community - including my own needs as an academic member of the larger PAR team.

The overall goal of this PAR project was to better understand rural adaptation to global environmental, political and social change so as to enable a more resilient and democratic food system. Based on this broader goal, this dissertation is presented as five iterative cycles of participatory action research inquiry, with each successive cycle unfolding sequentially from the outcomes and insights from previous cycles of inquiry (Figure 1.2; T.O.C.). Each of these cycles is documented as a self-contained publishable chapter.

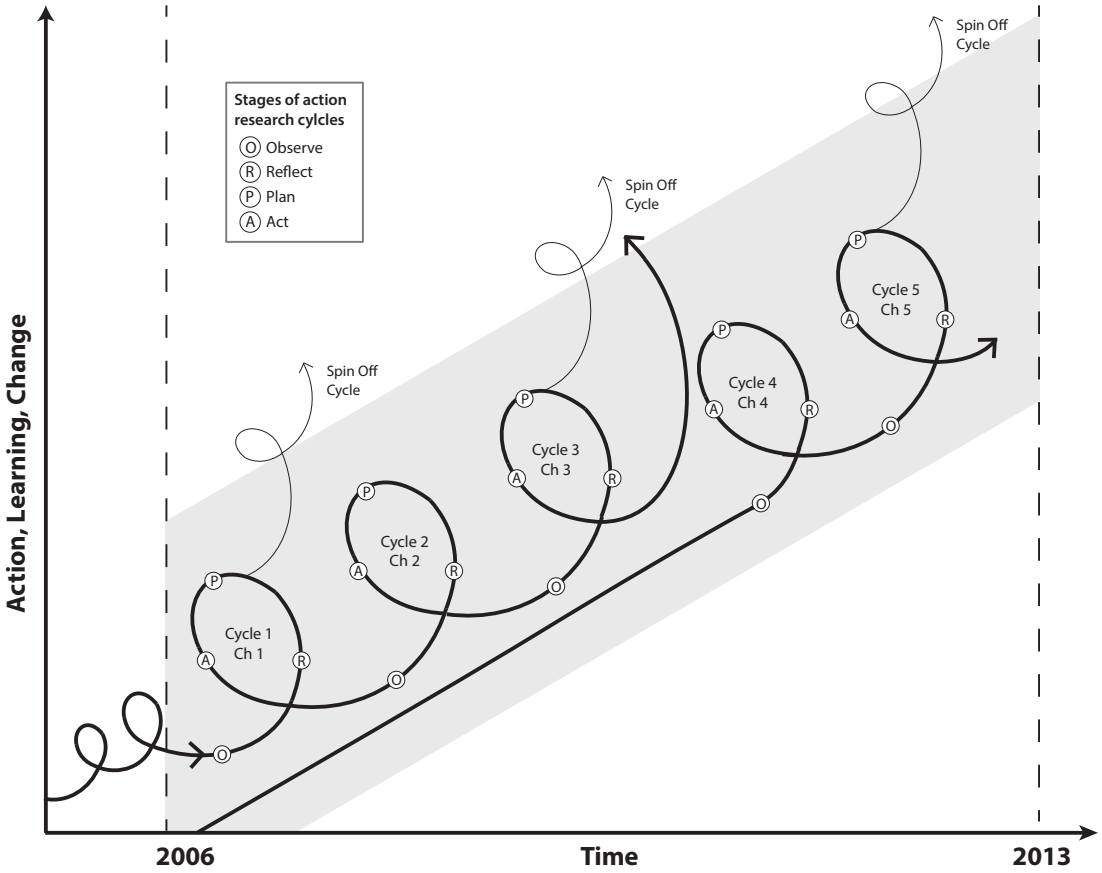

Figure 1.2 - Dissertation structure identifies five cycles of action inquiry, each representing a self-contained manuscript. The shaded grey area represents the scope of the thesis. The "spin off cycles" represent strands of action inquiry that are being pursued outside of the scope of the dissertation which will be returned to in the concluding chapter. Cycles 4 and 5 draw from observations made over the duration of the six years of the project.

Cycle 1 (Chapter 2) examines how farm households adapted to the BSE (Bovine Spongiform Encephalopathy or "mad cow disease") crisis in the Canadian Prairies, identifying direct marketing and cooperatives as important adaptations. *Cycle 2 (Chapter 3)* explores a case study of our development of a cooperative direct marketing initiative (Civic Food Network) in southwestern Manitoba that was at least partially grounded in the BSE crisis. *Cycle 3 (Chapter 4)* presents four short publications from a larger campaign that we engaged in to pressure the Manitoba government to establish more scale-appropriate policies and regulations that better support small-scale, food processors and

local food systems in general. *Cycle 4 (Chapter 5)* reflects on the previous three iterative cycles of action inquiry to examine how PAR can effectively mobilize knowledge to serve the public good. *Cycle 5 (chapter 6)* also reflects on the previous cycles of inquiry through an autoethnographic script that deconstructs graduate education, the dissertation and the professionalizing discourses that impede PAR in universities. The core PAR objective of each chapter were:

- *Cycle 1:* To examine how farm households adapted to the Canadian BSE (Mad Cow) crisis in Western Canada in order to better understand rural adaptation to global zoonotic diseases and to agriculture-related global environmental change as a whole.
- *Cycle 2:* To examine the social relations among farmers and farm families in CFNs to better understand the potential for CFNs to scale-up local food and to contribute to a more resilient and locally controlled food system.
- *Cycle 3:* To build an argument for policy changes in Manitoba that better support family farmers, small-scale processors and the development of local food systems.
- *Cycle 4:* To examine how action research transgresses "academic" and "non-academic" knowledge and space to mobilize knowledge in processes of social transformation.
- *Cycle 5:* To reflexively deconstruct my personal and professional experiences as an emerging researcher and to argue for a more flexible approach to academic performance evaluation, particularly in graduate education, to more effectively cultivate a generation of scholars capable of performing critical public scholarship.

1.5 THE DIVERSE SPACES OF THIS DISSERTATION

The conventional dissertation is notoriously long, inaccessible and, unfortunately, is typically only read by a handful of people. The length and format of a dissertation make it impractical for most readers (Duke and Beck, 1999), especially because the writing style is usually only accessible to a specialized expert readership. Dissertation research is often revised and published in academic journals or in scholarly monographs, however, this body of knowledge still remains largely inaccessible to the public, locked behind the costly licenses of journal publishers and restricted institutional library access (McKenna, 2013). The limits of the conventional dissertation are especially problematic in the context of PAR, where one of the core indicators of quality research is the production of knowledge and outcomes that are tangible and actionable (Bradbury and Reason, 2006; Bradbury-Huang, 2010; Greenwood and Levin, 2007; Herr and Anderson, 2005). Fals Borda, a leading theorist and practitioners of PAR in Latin America, emphasized the need for PAR researchers to generate accessible research outcomes in his recommendations to academic PAR practitioners,

> *Do not impose your own ponderous scientific style for communicating results, but diffuse and share what you have learned together with the people, in a manner that is wholly understandable and even literary and pleasant, for science should not be necessarily a mystery nor a monopoly of experts and intellectuals (Borda, 1995)*

Winter & Burroughs argue that the technical approach to academic writing is often 'inappropriate' in the context of PAR, particularly where style, tone and vocabulary express an 'expert' role that invisibilizes the role of co-researchers in the narrative or that privileges abstraction over experience (Winter and Burroughs, 1989). Thus, PAR researchers have advocated for alternative formats for action research dissertations to promote outcomes that would be more accessible and have greater reach (Dick, 1993).

Duke & Beck (2009) suggest that the different spaces within a dissertation could involve different formats, reflecting a variety of forms of representation geared towards a range of audiences. Thus, more flexible dissertation formats provide opportunities to include creative writing, policy commentary, video, photographs, performative writing and autoethnography (Duke and Beck, 1999; Fisher and Phelps, 2006; Herr and Anderson, 2005; Jacobs, 2008). By engaging with these multiple formats and mediums, students can better target their writing, and thus order their research endeavors, towards more diverse scholarly orientations that are more accessible to, and useful for, the public. As I will argue in Chapter 5, by promoting the inclusion of these diverse formats in a dissertation, examining committees would be better positioned to evaluate the full range of scholarly contributions that arise from graduate-level PAR.

The spaces of this dissertation are occupied by a diversity of styles and mediums including more conventional academic writing (chapter 1), reflexive auto-ethnographic writing (chapter 5), video (chapters 2,3,4) and photographs. These different formats are geared towards a diversity of audiences. Chapters 1, 3 and 5 have been written primarily for an academic audience. Chapter 2 targets a scholarly-practitioner audience and is accepted for publication in a journal that requires authors to write in an "accessible scholarship" style, in which you avoid the passive voice and unnecessary use of jargon." (Journal of Agriculture Food Systems and Community Development, 2013). Chapter 4 includes five short published articles and a video that were primarily written for the general public. I have also included three "research briefs" in the appendices that are also geared towards practitioners and that distill the longer manuscripts developed through this research into a shorter, more accessible format. It should be noted that a number of

these contributions are currently published, or are in the process of being prepared for publication (Table 1.1; For a full list of research outcomes, see Appendix B.).

Chapter/ Cycle	Publication Status
1	Anderson, C. R., & McLachlan, S. M. (2012). Exiting, enduring and innovating: Farm household adaptation to global zoonotic disease. Global Environmental Change, 22(1), 82-93. doi: 10.1016/j.gloenvcha.2011.11.008
2	Anderson, C. R., McLachlan, S. M., McDonald, W., & Gardiner, J. (Accepted). Negotiating the fault lines in civic food networks. *Journal of Agriculture, Food Systems and Community Development*.
3	Anderson, C. R. (2013). Is this really "Normal Procedure"? [Letter to the editor], *Printed in 8 community newspapers in rural Manitoba. Full version published on-line at: http://realmanitobafoodfight.ca/2013/09/07/really-normal-procedure/.*
	Anderson, C. R. (2013, September 26, 2013). Manitoba's local food policy must improve, Op ed, *Western Producer (Alternative versions printed in the Manitoba Cooperator, The Winnipeg Free Press and numerous community newspapers across rural Manitoba)*. Retrieved from http://www.producer.com/2013/09/manitobas-local-food-policy-must-improve/
	Anderson, C. R., Venture, J., & Vanderhart, J. (2013). The Real Manitoba Food Fight. Video available on-line at: http://www.youtube.com/watch?v=H1F6sCPMlm8
	Anderson, C. R. (2013, October 10, 2013). Experts and the food safety trump card [Letter to the editor], *Manitoba Cooperator (Full version published on-line at: http://realmanitobafoodfight.ca/2013/10/07/experts-food-safety-trump-card/).*
	Anderson, C. R. (2013, October 17, 2013). Food fights and beating up straw men, Manitoba Cooperator (Full version published on-line at: http://realmanitobafoodfight.ca/2013/10/18/food-fights-beating-straw-men/).
4	Revised chapter to submit to Action Research.
5	Revised chapter to submit to Antipode.

Table 1.1 - Primary publications associated with each dissertation chapter.

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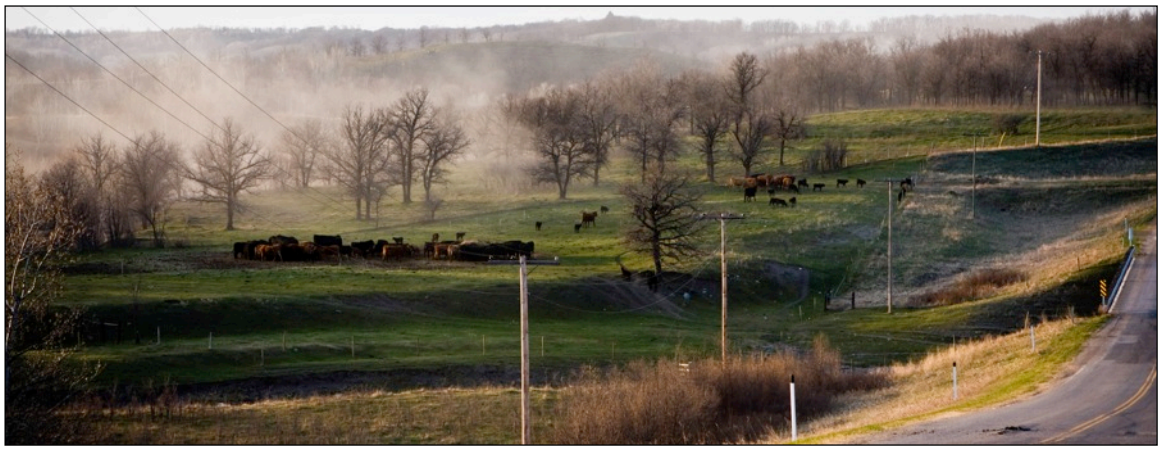
2 Cycle 1 - Exiting, Enduring and Innovating: Farm Household Adaptation to Global Zoonotic Disease



Chapter published at:
Anderson, C. R., & McLachlan, S. M. (2012). Exiting, enduring and innovating: Farm household adaptation to global zoonotic disease. *Global Environmental Change, 22*(1), 82-93. doi: 10.1016/j.gloenvcha.2011.11.008

Authorship of this manuscript is shared between the student and his thesis advisor. Following the guidelines set forth by the University of Manitoba, it should be noted that this manuscript was led by the intellectual effort of the student.

Abstract: Bovine Spongiform Encephalopathy (BSE) has been found in 25 countries, costing billions of dollars in those affected economies, and has had profound social and environmental impacts at multiple scales of organization. As a global phenomenon, the impacts of BSE were mediated directly through the environment (animal and human health) but in Canada the indirect socioeconomic impacts of BSE were far more damaging, especially for farm households. Yet, very little research has been conducted on adaptation to the indirect impacts of global environmental change, such as those mediated through the market and governance. Our goal was to examine how farm households adapted to the Canadian BSE crisis in order to better understand rural adaptations to global zoonotic diseases and to agriculture-related global environmental change as a whole. We conducted our mixed methods research in 2004-2006, Data sources included 826 survey responses, 27 individual interviews and 12 group interviews with farmers and ranchers in western Canada. Factor analysis separated out responses into three general adaptation strategies: 'innovating' to pursue new opportunities; 'enduring' or adaptations that seek stability; and 'exiting' from beef production or agriculture altogether. Farm household and community level innovation was a crucial adaptive strategy in the absence of governmental and expert-based support. Enduring adaptations were important to farm household survival in the short term, yet "chronic enduring" can compromise long-term adaptive capacity. Farm exiting was highly problematic during the BSE crisis as these responses were largely unexpected and often left households more vulnerable. Government support at the farm level promoted stability, with little support provided for change-orientated adaptations. Effective farm adaptation will require support for all three types of adaptive strategies and ones that are

both expert-based and grassroots in nature to enable farm households in their pursuit of pluriactive and multifunctional livelihood strategies.

2.1 Introduction

2.1.1 Vulnerability to the Direct and Indirect Impacts of Global Environmental Change

Technological progress has driven unprecedented advances in efficiency, productivity and profit in the global agro-food system. However, the paradox of modernity is that the unmet human capacity to manipulate the natural world in the pursuit of progress also results in unpredictable risks. Natural systems have the propensity to "boomerang" back (Beck, 1992) causing global change that can lead to environmental, health and market–related crises. To address these challenges, much effort has been expended on better understanding the vulnerability and adaptive capacity of individuals, communities, industries and institutions in the face of global environmental change (GEC) (see Brooks, 2003; McCarthy et al., 2001; Smit and Wandel, 2006 for reviews).

Vulnerability represents the degree to which an individual or a group is susceptible to harm from stressors associated with GEC (Adger, 2006). Most GEC research has focused on vulnerability to the direct physical or environmental impacts of global environmental problems, namely a changing climate (e.g. Parry et al., 2007) and related extreme weather events including drought (e.g. Wandel et al., 2009) and flooding (e.g. Eakin et al., 2010). Vulnerability to the indirect impacts of environmental change, or those that are manifested through socio-economic and political systems (Kulshreshtha, 2011, Smit et al., 2000) has received much less attention. Where non-climatic stressors have been included in adaptation studies, they are usually treated separately, as the outcomes of non-environmental (e.g. societal, political and economic) change (e.g. Belliveau et al., 2006; O'Brien and Leichenko, 2000). Yet, environmental change often

affects economic, political and regulatory change at multiple scales (e.g. Muller, 2011; Oh and Reuveny, 2010), presenting new challenges and opportunities for individuals, communities and society as a whole (figure 2.1).

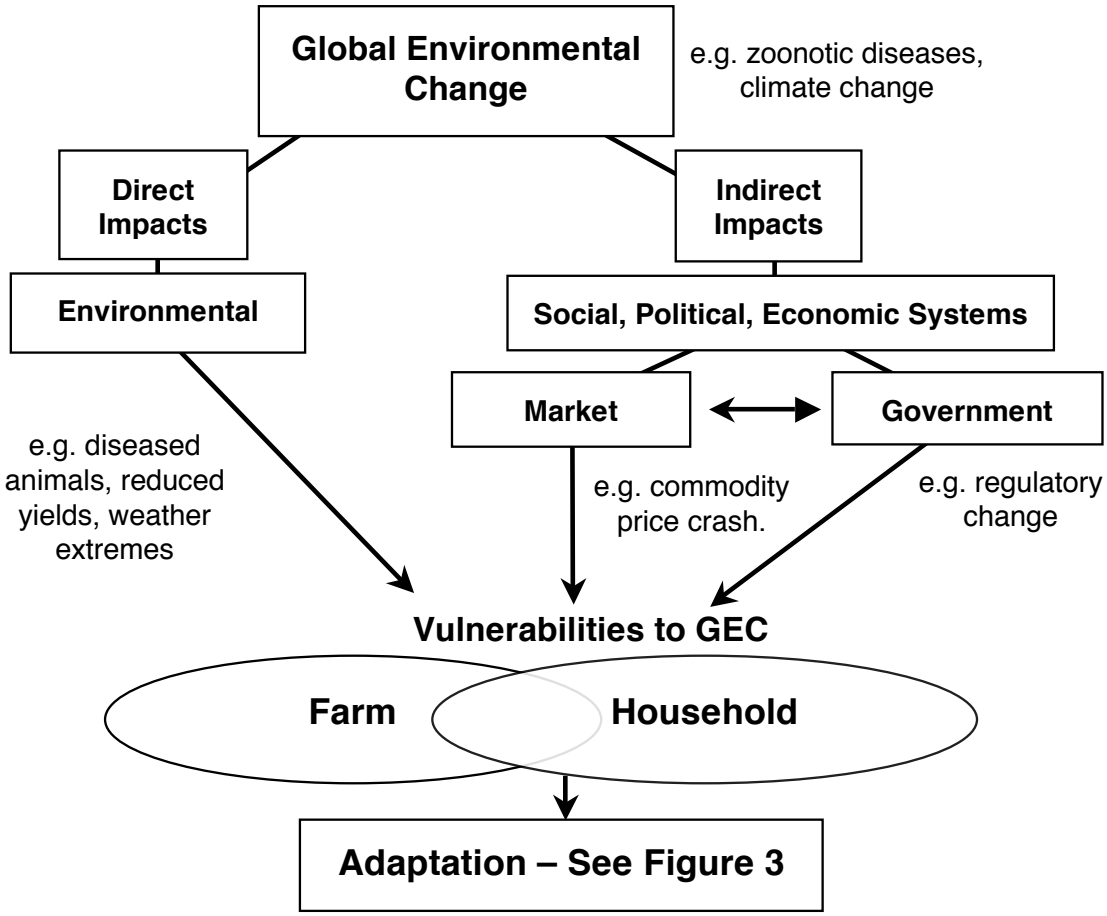


Figure 2.1 - Schematic outlining farm household vulnerability to the direct and indirect impacts of global environmental change.

This paper examines how farm households adapted to the Canadian BSE (Bovine Spongiform Encephalopathy or mad cow disease) crisis - a global environmental disaster with impacts in Canada that were largely mediated through political and economic systems. Our research approach sought to bring the poorly understood voices, concerns and experiences of farm families to the forefront of our methodology whereby research

questions and instruments were developed in active consultation with producers throughout an iterative, mixed methods design. Our goal was to explore how farmers adapted to BSE in Canada, which would, in turn, inform our understanding of farm household adaptation to GEC and improve our ability to facilitate rural adaptation to zoonotic diseases and agriculture-related global change as a whole.

2.1.2 Zoonotic Disease as a Global Environmental Disaster

Global environmental change includes both systemic change in global systems (e.g. climate change) and cumulative change where localized environmental problems aggregate at a global scale (e.g. aggregate pollution of local waterways) (Turner et al., 1990). Global zoonotics (or cross animal-human diseases) represent both cumulative and systemic forms of GEC whereby localized zoonotic epidemics aggregate on a global scale and are also spread through the global agro-food system with direct and indirect impacts that have caused profound changes at a global scale. Along with other livestock-related diseases (e.g. foot-and-mouth, blue tongue), zoonotic diseases (e.g. BSE, avian flu, swine flu) undermine the stability of global trade (Tilman et al., 2002). The speed, scale, and complexity of animal and meat trade have also contributed substantially to the emergence of zoonotic disease as a global environmental problem (WHO, 2004). Despite international efforts to control zoonotic diseases, they continue to spread and reemerge as global livestock trade expands and intensifies (Delgado et al., 1999).

BSE is a global zoonotic disease that has had devastating impacts at multiple scales. First identified in England in 1986, BSE represents one of the most significant environmental disasters associated with the modern agro-food system (Leiss and Nicol, 2006). BSE is a fatal neurodegenerative prion disease (Dalsgaard, 2002) that is

transmitted amongst cattle through the ingestion of BSE-infected central nervous system tissue. Although the recycling of animal materials as a high-protein feed source represents an effective way of reducing slaughterhouse waste to increase profits, the introduction of BSE-tainted animal materials into otherwise herbivorous bovine diets provided the BSE agent with a novel anthropogenic infection pathway (Smith and Bradley, 2003).

Once BSE-tainted meat was linked with the fatal human variant Creutzfeldt Jacob Disease (vCJD), the disease escalated from an ostensibly manageable agricultural issue into a zoonotic disease epidemic having devastating socio-economic, animal health and human health consequences around the world. The subsequent global spread of BSE was facilitated by British exports of BSE-tainted meat, bone meal and live cattle incubating the disease (Brown, 2001), and has since been documented in 25 countries across Europe, Asia, and the Americas (World Organization for Animal Health, 2011). Trade moratoria levied on countries found to have BSE infectivity and the costs associated with eradication programs have led to billions of dollars in economic loses worldwide.

2.1.3 The Canadian BSE Crisis

On May 23, 2003, the first of only 19 Canadian cases of BSE was found in the province of Alberta (WOAH, 2011), causing 38 countries to close their borders to Canadian live cattle and beef products. In 2002, almost half of the cattle sold in Canada had been exported as either live animals or meat, the majority of which was destined for the US. In contrast, the US exported only 10% of its beef and cattle, leaving it much less vulnerable to border closures (O'Neill, 2005). In Canada, the loss of these export markets in turn depressed commodity beef prices triggering a socio-economic crisis that

devastated the agricultural sector, the Canadian economy and especially farm households and rural communities (Mitra et al., 2009; Stozek, 2008). Losses over the following year averaged $20,000 per farm household (Mitura and Di Pietro, 2004) and these immediate impacts resonated across the Canadian rural landscape. The overall economic impact on the agricultural sector in 2005 was estimated at $7 billion (Leiss and Nicol 2006).

The Canadian BSE crisis provides a useful opportunity to explore farm household adaptation to the indirect impacts of GEC. Despite originating as a global environmental disaster (global disease emergence), the environmental impacts (animal and human health) of BSE in Canada, and also in countries including Japan and South Korea, were dwarfed by those mediated through the marketplace. In Canada, only 19 BSE-infected cattle have been detected and only one case of the human variant Creutzfeldt-Jakob disease in contrast to the UK, for example, where 184,607 and 174 detected cases of BSE and vCJD, respectively, have thus far been documented (EUROCJD, 2008; WOAH, 2011). It is further estimated that in the U.K. over 900,000 cattle were infected, that 8.54 million high-risk animals were destroyed through the BSE eradication program and, despite these precautions, that over 460,000 infected animals ultimately entered the food system (Valleron, 2001).

Research on the Canadian BSE crisis has focused on public policy and trade e.g. (Le Roy and Klein, 2005; O'Neill, 2005; Rude et al., 2007), risk management and perception of risk (Boyd et al., 2009; Krewski et al.; Leiss et al., 2010; Lemyre et al., 2009)1, the farm and community level impacts of BSE (Ashraful and McLachlan, 2009; McIntyre and Rondeau, 2009; Mitra et al., 2009; Stozek 2008) and locating the BSE

[1] Also see two special issues in Journal of Toxicology and Environmental Health

crisis within the context of multiple interacting stressors (Schaufele et al., 2009; Stozek, 2008). The Canadian BSE Integrated Risk Management Framework (IRMF) (Leiss et al., 2010) provides a comprehensive synthesis of research on BSE in Canada and beyond; however, the capacity for farm households to adapt is absent from this framework and from studies on zoonotic disease in general (Anderson and McLachlan, 2009). Indeed, with the exception of one study that characterized the role of Holistic Management in rural adaptation to BSE (McLachlan and Yestrau, 2008) and another that focused peripherally on adaptation amongst young farmers (Cook et al., 2011), there has yet to be a systematic appraisal of farm household adaption to BSE in Canada or anywhere else in the world. Yet, the reoccurrence of zoonotic disease is arguably as inevitable as a changing climate – a field within which understanding and facilitating farm household adaptation is now mainstreamed in scientific and policymaking circles.

2.1.4 Typifying Agricultural Adaptation

Adaptation has been defined as 'adjustments in ecological-social-economic systems in response to actual or expected' impacts and opportunities associated with global and local change (Smit et al., 2000). Adaptations are manifestations of adaptive capacity, which represents the potential for actors to absorb and recover from the direct and indirect impacts associated with GEC and further reflects the degree to which they can take advantage of any emerging opportunities associated with these changes (Adger and Vincent, 2005). A number of studies and reviews have suggested a variety of dimensions and typologies of agricultural adaptation, largely in the context of adaptation to climate change.

In their seminal typology, Smit and Skinner (2002) categorized rural adaptation into four types: technological developments, government programs and insurance, farm production practices, and farm financial management. Within this framework, technological developments and government programs emphasize the role of non-farm actors (e.g. government, agri-business), while the later two types emphasize the role of the farm enterprise. Beyond the farm gate, other actors facilitate or undermine on-farm adaptation at a distance by affecting the political, regulatory, technological and economic context within which a farm operates (Carina and Keskitalo, 2009). Many approaches, including that represented in this study, focus on the farm household as our 'system of interest' (Smit et al., 2000). From this situated perspective, we can then consider the inter-scalar relations and the broader conditions that affect farm adaptation (Smit and Wandel, 2006).

Adaptations also have temporal dimensions and have been classified as either reactive with respect to current exposures or proactive with respect to anticipated ones (Paavola and Adger, 2002; Pittock and Jones, 2000). Short-term coping responses have been distinguished from long-term strategic adaptations (Berkes and Jolly, 2001). Although temporal dichotomies are useful for classifying some adaptations, these categories tend to break down in practice as farmers use a combination of adaptive actions that interact over time in ways that are both short and long term and that vary in intent, timing and duration as farm households face new challenges and opportunities (Smit and Skinner, 2002). Characterizations of agricultural adaptation in the GEC literature generally emphasize the importance of individual farms in short-term reactive adaptation, focusing on the roles of agri-business and governments in fostering longer-term strategic adaptation (e.g. Kurukulasuriya and Rosenthal, 2003; Smit and Skinner,

2002). This dichotomy arguably denies any influential role for farmers and rural communities in generating long term adaptation strategies and, indeed, can even undermine grassroots adaptations (McLachlan and Yestrau, 2008).

Given the focus on the direct environmental impacts of climate change, GEC research has primarily focused on agronomic farm adaptation strategies that maintain or increase agricultural productivity (e.g. Bryant et al., 2000; Bradshaw et al., 2004). However, research elsewhere demonstrates that farm households adapt to change by making adjustments both in the farm operation (operational adaptations) as well as the farm household (familial adaptations), often transferring human and material resources between the two (Johnsen 2004;Smithers and Johnson, 2004). It has been long theorized that the interdependence of the farm operation and farm household is a critical source of adaptive capacity that has allowed family farms to persevere as a mode of production and for agriculture to avoid the degree of capitalist industrialization experienced in almost every other sector (Brookfield, 2008; Chayanov, 1987). Policy-makers and scientists often assume that economic rationality alone can explain adaptation as farmers are presumed to pursue adaptations that maintain or increase productivity, efficiency and profitability. Yet, most family farms also pursue extra-economic goals (e.g. way of life, land stewardship, spiritual, cultural) in their adaptation strategies that are central to understanding farm adaptation (Barbieri and Mahoney, 2009; Fairweather and Keating, 1994; Gasson et al., 1988).

2.2 METHODS

2.2.1 DESCRIPTION OF STUDY AREA

Our research focuses on adaptation to BSE in the three Canadian Prairie Provinces (figure 2.2). The impact of the Canadian BSE crisis was greatest in Manitoba (MB), Saskatchewan (SK) and Alberta (AB) in large part because two thirds of Canada's beef cattle farms are located in these provinces (Statistics Canada, 2006). Indeed, 43% of all Canadian beef cattle production and 64% of all cattle in specialized feedlot production takes place in Alberta alone (MacLachlan, 2001). In comparison, Manitoba and Saskatchewan farmers are primarily involved in cow-calf and backgrounding production with a much a smaller share of feedlot production[2] (Statistics Canada, 2006). Alberta is also home to six large federally inspected slaughtering plants that market processed beef and animal products beyond provincial and indeed national boundaries. In contrast, Saskatchewan and Manitoba each only have one smaller federal processing facility and the majority of feeder cattle are shipped to Alberta or Eastern Canada for finishing and slaughter. While over 100 provincially inspected abattoirs are located in the prairies, they can only market products within provincial borders.

2.2.2 MIXED METHODS APPROACH

This study used an iterative and sequential mixed methods approach (Teddlie and Tashakkori 2009, p.277) where qualitative and quantitative methods were mixed over

2 A cow-calf operator maintains a breeding herd to produce offspring calves that are sold into the feeder market. Backgrounding represent an intermediate stage and typically involves buying smaller calves from cow-calf operators and raising them on pasture until placement in a feedlot. In the final stage of beef production, feedlots add weight to cattle using a specialized high-protein diet and sell finished-cattle for slaughter.

three sequential phases. Data collected in earlier phases informed the development of research questions and instruments in each subsequent phase (figure 2.3). The use of mixed methods also allowed us to collect and analyze data that clarified and complemented the results from one method (e.g. qualitative) with the use of the other (e.g. quantitative) (Green et al., 1989).

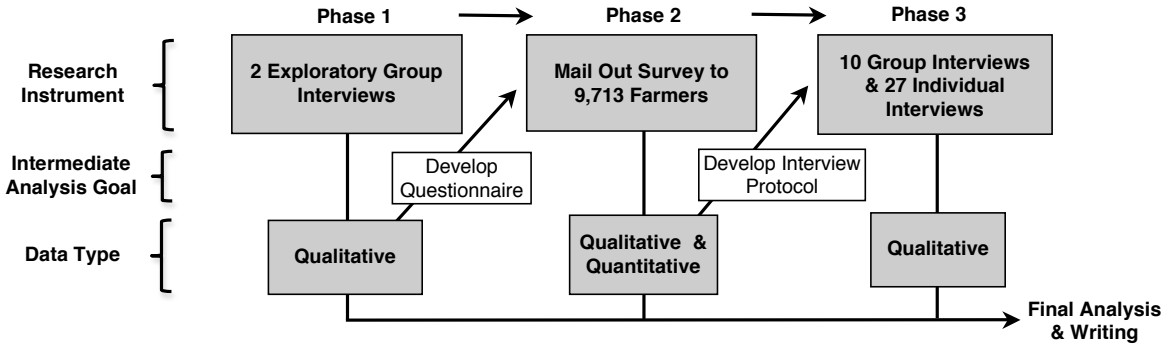


Figure 2.2 - Iterative sequential mixed methods schematic.

A random stratified approach was taken whereby rural regions in the Prairies were stratified according to density (i.e. low and high) of cattle production and proximity (i.e. close and far) to the nearest federally inspected slaughterhouse. Low and high cattle production classes were defined as 0-21 cattle km^2 and 22-65 cattle km^2, respectively whereas close and far distance classes were defined as <150 km and > 150km to the slaughterhouses, respectively. All census districts from Alberta, Saskatchewan and Manitoba in which at least 30% of the land-base was used for agricultural production were assigned to each of these four strata. Two census districts were randomly selected from each of the four strata in each of the three provinces (n=24).

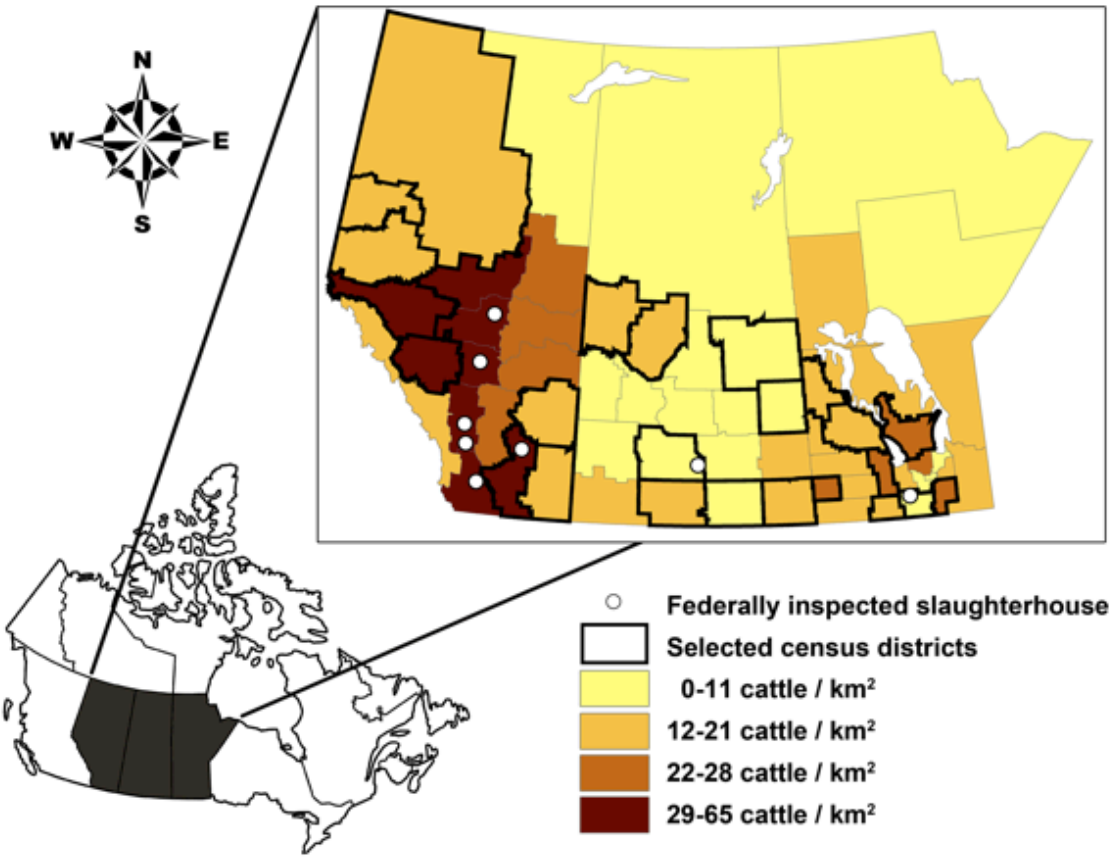


Figure 2.3 - The Canadian Prairies. Sampling strata, cattle density and location of federally inspected slaughterhouses.

2.2.3 Phase I – Initial Group Interviews

Because there was so little previous research on adaptation to zoonotic diseases or of the nature of the BSE crisis in Canada, we conducted two preliminary exploratory group interviews in December 2005 with farmers from two of the 12 strata in Manitoba. A diverse group of farmer participants were recruited by snowball sampling through two farm organizations in each stratum - the Harvest Moon Society and the Riding Mountain Biosphere Reserve. Participants were asked open-ended questions about the impacts of BSE, government response and the adaptation strategies they used in response to the

crisis. Important in their own right, these data were also used to develop the subsequent mail-out questionnaire.

2.2.4 Phase II – Mail-out Questionnaire

The 12-page questionnaire consisted of both likert-scaled and open-ended questions that focused on the following themes: direct and indirect impacts related to BSE, additional risks to farmers and rural communities, attitudes towards Canadian agriculture policy, agricultural structural changes, government responses to BSE, environmental and animal health implications of BSE and farm household adaptation strategies.

Using Canada Post databases, rural post offices were randomly selected throughout each test census district such that no one post office exceeded 80 farms and thus each census district was comprised of 400-410 survey recipients. On March 7, 2006, 9,713 questionnaires were distributed using an unaddressed 'ad mail' mailing option to all those who had self-identified as 'farmers' in the selected postal regions. Although less than ideal, our use of ad mail was unavoidable since mailing lists are unavailable for farmers for all three provinces. A reminder letter and finally a condensed four-page version of the original larger questionnaire were sent out at one-week intervals after the initial mail-out (Dillman, 2000). The shorter survey was sent in order to provide an additional opportunity for farmers to participate in the research, anticipating that some would have lost or discarded the original questionnaire, especially since the mail outs had been non-addressed.

In total, 1,473 completed questionnaires were returned (826 long version, 647 short version), for a 15% absolute response rate. Residents in the test census districts that

had been sampled were telephoned, allowing us to assess how many of the questionnaires had actually been received. The resulting adjusted survey response rate was estimated as 33%. Although somewhat low, these response rates are typical of large-scale mail surveys conducted in rural areas and reflect a trend of declining mail survey response rates in rural research (Penning, 2002). Moreover, they reflect our necessary use of anonymous ad mail. This paper focuses on a subset of adaptation-related questions found only on the long version of the questionnaire (n=826).

Non-response bias was assessed by telephoning 10 farmers in each of the test census districts (n=240), five of whom that had already responded and five that had not responded to the questionnaire. All were asked five questions selected from the questionnaire and those that had not responded were also asked to indicate reasons for their failure to participate. We found no significant differences in response between responders and non-responders (p=0.5612). Lack of time and general cynicism about research were the most frequent reasons for not participating. Many of the non-respondents also indicated that they had thrown out the surveys, without opening the envelopes in large part because they were non-addressed and thus perceived as "junk mail".

Broken down by province, 38.5% of survey respondents were from Manitoba, 31.8% from Saskatchewan and 25.3% from Alberta. Most (80.9%) were male and averaged 53 years of age. Almost half (40.9%) had some form of off-farm income, this slightly lower than the Statistics Canada average for the Prairie Provinces (48.4%) (Statistics Canada, 2006). The average farm size for our sample across all the three provinces was 2313 acres, double that of the Statistics Canada average of 1167 acres (Statistics Canada, 2006). Our sample contained a higher distribution of larger farms and

a lower distribution of smaller farms than the Statistics Canada data. These differences likely reflected our stratified sampling technique. Half of the sampling regions were selected for low cattle production density. Farms in these strata would tend to have larger acreages with lower cattle densities, especially for ranches in Alberta and Saskatchewan. The average cattle herd size of our sample was 183 head per farm, very close to the Statistics Canada average of 179 head per farm (Statistics Canada, 2006). In total, 80.1% of respondents self-identified as cow/calf operators and 8.1% operated a feedlot. Many had mixed farms, 57.4% having grain operations in addition to cattle.

Self-reported measures[3] of adaptation strategies were summarized using mean, proportion agreeing/disagreeing and standard error (SE). Questions with more than four missing values were removed from further analysis leaving 522 useable cases. Eighteen Likert-scaled questions regarding adaptation to BSE were subjected to principal component analysis (PCA) to explore the underlying structure of the data (SPSS version 17). Questions were assigned to components and only selected for further use if the loading was at least 0.400 (Field, 2005), if three questions or more loaded highly on each component, and if the questions loaded onto only one component (i.e. had no cross-loadings). Interpretation of the scree plot revealed inflexions that justified retaining three components, which were interpreted using a varimax rotation. The final three-component solution explained 48.3% of the variance (table 2.1). The first two components represented reliable scales with Chronbach alpha values greater than the 0.60 considered acceptable for internal consistency (Nunnally and Bernstein, 1994),

3 Respondents were asked to, "please indicate the extent to which you agree or disagree with the importance of the following coping strategies you may have adopted in your livestock operation as a result of the BSE crisis."

although the third factor was slightly lower (0.56). Chronbach alpha values are highly dependent on the number of variables in the scale and a low alpha value for a scale with two variables may not be indicative of poor reliability and can still be useful for data interpretation (Cortina, 1993). The three component solution represents a typology of farm household adaptation where component one was termed 'innovating adaptations', component two 'enduring adaptations' and component three 'exiting adaptations'.

Secondary analysis was conducted on a set of questions related to animal health and environmental impacts. Respondents were sorted into low, medium, and high categories using the factor scores from each component. The middle 33rd percentile was then eliminated to create binary categories for each of the three general adaptation strategies. We then compared responses to five statements regarding environmental and animal health impacts between those who were categorized as either high or low in each of the three general adaptation strategies.

2.2.5 Phase III – Group and Individual Interviews

A third qualitative phase was used to explore findings from the first two phases to and further develop emerging theory. Group interviews were conducted in communities within each of the 10 remaining test census districts between August-November 2006. Respondents to the survey whom had indicated that they wished to participate further in the research were identified, contacted and invited to participate in a location central to those interested. Overall, 93% of those contacted agreed to participate in these group interviews. Additional data were also drawn from 27 interviews conducted between June and September 2007 with farmers in Manitoba as a part of a complementary study that focused on BSE-related marketing adaptations. Qualitative data from the group

interviews, the individual interviews and the open-ended survey questions were coded and provided complementary data that expanded on the typology that emerged from the quantitative analysis.

	Variance	Eigen Values	Alpha	Factor Loading	Mean[a] (SE)	Mean Ranking	Importance (proportions %) Agree	Neutral	DN/NA[b]	Disagree
Component 1 – Innovating	20.5%	3.129	0.75							
Marketing directly to consumers				0.800	4.48 (.07)	4	51.0	16.8	10.5	21.8
More rotational grazing				0.712	4.76 (.07)	3	54.6	21.7	9.3	14.4
Practice holistic management				0.681	4.07 (.07)	8	26.1	32.3	21.2	20.4
Finding other markets for livestock				0.623	4.90 (.07)	2	61.9	18.9	4.6	14.6
Shifting to organic production				0.567	3.05 (.08)	14	13.4	22.5	16.6	47.4
Fattening more cattle to finish				0.503	3.57 (.08)	11	27.0	19.4	12.5	41.1
Component 2 – Enduring	17.5%	2.147	0.69							
Cashing in family investments				0.728	4.15 (.08)	6	34.9	19.1	3.9	42.2
Selling assets				0.695	4.20 (.08)	5	40.6	22.7	2.4	34.3
Taking out more loans				0.691	4.10 (.09)	7	41.1	17.2	7.1	34.7
Overgrazing some paddocks				0.659	3.61 (.08)	10	33.2	14.0	6.6	46.1
Reducing the number of vet visits				0.434	5.12 (.07)	1	69.3	9.5	4.1	17.0
Component 3 – Exiting	10.6%	1.487	0.56							
Downsizing Herd				0.788	3.46 (.08)	12	28.8	14.3	4.0	52.9
Leaving cattle industry				0.662	3.10 (.07)	13	17.6	20.3	9.4	52.7
Using low calf prices to expand				-0.598	3.65 (.08)	9	41.3	18.8	8.1	31.9

[a]Variance, eigenvalues, factor loadings, factor alpha, mean scores and proportion agreed were derived from a 7-point scale, with 1 indicating 'strongly disagree' and 7 indicating 'strongly agree". Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .711. Bartlets Test of Sphericity Sig. = .000.
[b] Don't know / Not Applicable

Table 2.1 - Results of principle component analysis (varimax rotation), reliability analysis and descriptive statistics of each individual observed variable in principle component solution. Each observed variable represents the degree to which respondents agreed that the stated adaptation strategy helped their farm adapt to BSE.

2.3 Exiting, Enduring and Innovating Adaptation Strategies

2.3.1 Innovating Adaptations

Observed variables that separated onto component one represented a substantial and proactive change in management practices and a move to experiment with new strategies, technologies, partnerships and ideas - 'innovating adaptations' (Table 2.1). These in turn were categorized into "market-oriented" innovating and "production-oriented" innovating. In general, market-oriented adaptations were more important than

those that were production-oriented. This is unsurprising, given that the impacts of BSE were largely mediated through the marketplace.

2.3.2 Market-oriented innovating adaptations

The majority (61.9%) of respondents agreed that 'finding other markets for livestock' was an important strategy for adapting to BSE. Half (51%) agreed that marketing directly to consumers was an important adaptive response. One farmer from Manitoba indicated, *"When the value of cattle dropped, we responded by direct marketing beef. Our income from beef returned to normal and then increased above pre-BSE levels." (Survey 1384, MB)*. The degree of direct marketing as a response to BSE varied. Some farms marketed a small number of animals *"out of their freezers…. as a lot of non farmers pitched in and tried to buy from neighbours, relatives, etc." (Survey 167, MB).* Others developed more substantial, value-added direct marketing enterprises to take advantage of emerging opportunities in local markets. One participant from Manitoba, described how selling directly to consumers had reduced his vulnerability to future market risks, "*If that (BSE) happened today instead of three years ago, my income would not change." (Interview 10, MB)*. However, the extent to which farmers developed these more substantial direct marketing businesses was often undermined by poor access to processing and distribution infrastructure, *"Local abattoirs* [were] *swamped with work, custom slaughtering cull cows." (Survey 352, SK).*

Question	% agree	% neutral	% disagree	DN/NA
Government should be facilitating more alternative international markets for Canadian beef	93.4	4.0	1.7	1.0
Canadian agriculture is too dependent on export markets	83.9	4.0	11.4	0.6
Increased dependence on export markets has increased risk in agriculture	77.4	7.5	14.6	0.5
Free trade has given foreign interests too much control over our domestic market	77.0	11.8	9.4	1.8
Better incentives/subsidies towards local slaughter facilities	75.8	10.4	12.4	1.5
Free trade agreements such as NAFTA have generally benefited Canadian Producers	34.0	14.6	48.6	2.7

Proportions were derived from a 7-point scale, with 1-3 indicating disagree, 4 indicating neutral and 5-7 indicating agree

Table 2.2 - Respondents attitudes towards marketing-oriented statements.

Respondents were asked to respond to a separate question that explored farmer's attitudes towards the marketing options available in Canada and the role of government in the beef industry (Table 2.2). Almost all (94%) respondents felt that 'more alternative international markets for Canadian beef' were needed. As one respondent from Saskatchewan explained, *"[Canada needs] much stronger international beef marketing, with far less reliance upon the US market." (Survey 1003, SK)*. Most (84%) respondents felt that 'Canadian agriculture is too dependent on export markets' and most (79%) were concerned about foreign control over the domestic market. One respondent from Manitoba indicated, *"The future will depend on Canada managing and controlling their own slaughter facilities." (Survey 145, MB)*. Respondents identified farmer-owned slaughter cooperatives as an urgently needed adaptation to gain more power in the marketplace, *"Cooperatives and organizations where we can maybe drive our own markets." (Focus Group 3, MB)*. However there was concern about the capacity of farmers to afford the associated start-up costs in light of the BSE-related financial losses. Farmers generally saw a great need for government to financially enable these emerging cooperatives as most (77.1%) respondents also agreed that 'better

incentives/ subsidies toward local slaughter facilities' were needed. Yet, new and existing food safety regulations undermined the expansion of local slaughter capacity and thus restricted farmer's ability to develop cooperative slaughterhouses and partnerships with regional packers,

> *One of the local packers looked into getting a killing plant and upgrading this killing plant… the guy told him it would be 5 to 7 years before he could get all the government bookwork done …So that's frustrating. Here I am a producer that wants to market cattle through this and he's on the packing end of it that wants to provide a service for us…we can't go to a big multinational [meat packing company] because they don't want to be bothered with us…our government is our biggest obstacle. (Interview 3, MB).*

2.3.3 Production-oriented innovating adaptations

About half of respondents (54.6%) agreed that rotational grazing was an important innovating adaptation that allowed producers to maximize pasture carrying capacity. Survey respondents were less inclined towards more specialized alternative farm management practices such as holistic management (HM) and organics. About a quarter (26.1%) of respondents agreed that HM was an important innovating adaptation. Although it is being rapidly adopted by many in the prairies as a triple bottom-line approach to agriculture, HM is still relatively uncommon, perhaps indicating why most (53.5%) respondents were neutral or indicated 'don't know/ not applicable'. Only 13.4% of respondents felt that switching over to organics was an important adaptation. However, some respondents who already practiced organic livestock production noted that BSE presented new opportunities as some consumers had lost confidence in conventionally produced meat, *"We came thru this better than most beef producers because we are certified organic beef producers. Consumers sought us out for this reason." (Survey 1440, AB).*

2.3.4 Enduring Adaptations

Questions that separated onto component two emphasized reducing operating and living costs (Table 2.1) and differ from innovating responses in that they attempt to regain stability on the farm rather than pursuing new opportunities. These enduring adaptations allowed respondents to persist in the short term and, in effect, to avoid making substantial *immediate* changes. These strategies were relatively common, and many focused on reducing expenditures, "*In agriculture, there are only two ways to make money: 1. Increase production and the value of production. 2. Reduce expenses. In the case of BSE, #2 applies in most cases."* (Survey 416, MB).

Most producers (69.3%) thought that 'reducing the number of vet visits' was an important enduring response, as one respondent illustrated, '*If she's going to die, she's going to die because we ain't getting no vet out to the farm no more." (Focus Group 4, AB).* Another farmer from Manitoba described how enduring can negatively affect herd genetics, *"Now we are not cleaning [our herd] out but we are breeding everything that can be bred and we are getting those bad genetics back…bad feet coming back…all of these other problems coming back." (Focus Group 3, MB).* Many (41.1%) of respondents agreed that 'taking out more loans' was an important short-term enduring response as many families were forced to go '*waist deep into debt' (Survey 308, SK).* A producer from Manitoba explained that taking out loans might simply delay the inevitable impacts as, *"The BSE crisis will devastate the industry in the next few years as producers try to pay back loans taken out in the last 2 years." (Survey 1432, MB*). Some were critical of government interventions that further indebted farmers, *"Farmer 1: Instead of that they gave out $50,000 loans and said they were doing something for farmers when they really weren't. Farmer 2: I don't see how adding more debt helps anyone." (Focus Group 3, MB).*

In total, 40.6% of respondents agreed that selling assets and 34.9% agreed that cashing in family investments were important enduring responses to keep the farm enterprise afloat, however at a great cost, *"We have used every penny we've had saved to help us through this" (Survey 506, SK*). Enduring adaptations undermined quality of life as struggling families cut expenditures on recreation, and *"ended all of* [their] *discretionary spending." (Focus Group 8, SK).* Reduced spending at local businesses and withdrawal from community life also had negative implications for rural communities. One respondent explained, *"You couldn't buy needed goods or pay bills, you couldn't travel around to family or community functions, which is necessary to live a healthy lifestyle" (Survey 957, MB).*

Many who embraced enduring strategies did so in anticipation of market corrections and hoped for a quick reopening of the US border for trade, *"People are waiting to sell their animals hoping the price goes up" (Survey 1036, SK),* while relying on government support programs and other means of relief in the interim, *"Just held on, used whatever money the governments handed out to scrape by on." (Interview 28, MB).* Indeed, enduring adaptations were often dependent on solutions that emerged outside the farm gate, especially those that involved market correction (e.g. reopening the US-Canadian border) and government compensation packages and subsidies.

Some farmers who held back animals from the market in anticipation of higher prices couldn't afford the additional infrastructure needed to accommodate their larger herds, "*We do not have the money to build new pens or corrals to handle these extra cattle." (Survey 1156, AB).* Costs mounted as producers struggled to feed these larger herds, *"We seeded everything down, started corn, started silage and invested thousands of dollars...Put us up to way too many animals. We did not have the place for that many animals. But yet we did it." (Interview 27, MB).*

Respondents expressed concerns over the animal health implications associated with increased herd sizes. Indeed, some indicated that *'animals were under-fed to save money' (Survey 8, MB)* and other concerns that there was *"overcrowding in many cases" (Survey 196, MB),* which could, in turn, lead to declines in animal welfare, increases in pollution of land and water and increased risk of spread of disease. A farmer from Saskatchewan explained,*" Animals were euthanized and not properly rendered or composted and will lead to environmental concerns, further spread of whatever disease by coyotes, etc." (Survey 39, SK).* Another respondent elaborated on some of these environmental consequences, *"Overgrazing due to producers retaining more cattle was and still is a major problem" (Survey 568, AB).*

	Innovating		Enduring		Exiting		All
	Innovators	Non-innovators	Endurers	Non-Endurers	Exiters	Non-Exiters	
Impact of BSE [1]	+ / -	+ / -	+ / -	+ / -	+ / -	+ / -	+ / -
No environmental effects	23.9/50.2	36.7/44.0	30.3/53.3	27.6/44.2	28.7/51.5	29.4/46.6	25.1/36.5
My livestock were stressed	38.7/43.6	31.3/54.8	**53.9/30.9**[2]	**12.9/73.0**	35.3/47.9	35.0/50.9	27.1/37.0
Livestock in area were less healthy	30.7/54.6	28.3/65.7	**41.8/44.2**	**16.6/76.1**	27.5/60.5	28.2/61.3	22.3/49.3
Decline in plant biodiversity	32.5/50.9	21.1/63.3	**46.1/33.9**	**8.0/79.8**	27.5/56.9	25.2/61.3	10.2/23.7
Water quality in area decreased	**22.7/59.5**	**8.4/80.7**	**25.5/50.3**	**6.1/80.4**	17.4/64.1	14.1/72.4	15.3/68.5

[1] +/- Proportions were derived from a 7-point scale, with 1-3 indicating disagree (-) and 4-7 indicating agree (+) and 4 indicating neutral.
[2] Bold indicate significant differences <0.001.

Table 2.3 - Perception of environmental and animal health impact of BSE compared between innovators vs. non-innovators, endurers vs. non-endurers and exiters vs. non-exiters (n = 336).

In response to a set of Likert-scaled question regarding the animal and environmental health impacts of BSE, significant (p<0.001) differences emerged between those scoring high on enduring adaptations (endurers) versus those who scored low (non-endurers) on enduring adaptations (Table 2.3). Indeed, a greater proportion of endurers agreed that their animals were stressed (53.9% vs. 30.9%, p<0.001) and that livestock

were less healthy (41.8% vs. 16.6%, $p<0.001$) than did non-endurers. With respect to environmental impacts, endurers were 5X more likely to agree that there were declines in plant biodiversity than were non-endurers (46.1% vs. 8%, $p<0.001$). Likewise, endurers were 4X more likely to agree that declines in water quality were associated with BSE than were non-endurers (25.5% vs. 6.1%, $p<0.001$), although only a minority of respondents from each group felt this was the case.

Enduring adaptations had long-term psychosocial, environmental and economic costs that in turn increased farm household vulnerability. One farmer from Manitoba explained, *"Once a safety net is gone, you face the next crisis vulnerable and unless you have time and opportunity to replenish funds, the next blow will do you in." (Survey 709, MB)*. Another respondent from Saskatchewan explained the link between current enduring responses and farm exiting in the future, *"All purchases (major) will be sidetracked for a few years or totally non-existent. The greatest possibility is to rid ourselves of the cow herd if disease, drought, etc, become the factor again." (Survey 387, SK)*. Although enduring adaptations provide an important buffer in the short-term, they may simply delay the impacts and even exacerbate vulnerability to future stressors.

2.3.5 Exiting Adaptations

Questions reflecting an exit out of the livestock industry separated onto component three, which we refer to as 'exiting adaptations' (Table 2.1). In contrast to enduring and innovating, exiting adaptations were predominately viewed as a last resort. Downsizing the herd represented a moderate form of exiting and a minority (28.8%) of respondents agreed that it was an important adaptation. Even fewer (17.6%) respondents indicated that "finding the first and best way out of the cattle industry" was an important

response. This aversion towards exiting reflected a culture of persistence amongst farmers and the combined status of farming as a "way of life" as well as a business,

> *Your home is right where your cattle are. You look out your window and you see a cow. You never get away from it - it's who you are, and it is not an easy thing to pull up. Where are you going to go? What are you going to do? You can't get a job tomorrow; it's a very difficult situation. The future doesn't seem that good. (Focus Group 1, MB)*

The prospect of farm exiting thus represented much more than the loss of a business to many farmers but also a loss of home, heritage, and for those who out-migrate, a loss of community.

Despite this aversion towards exiting, herd liquidation was an inevitable outcome of the BSE crisis. Some abandoned the cattle enterprise but retained the farm and shifted to other farm enterprises or in many cases to off-farm employment, *"We now consider our ranch to be a hobby farm and my husband has a good off-farm job to pay the bills." (Interview 36, AB).* Others quit farming altogether. In the most tragic instances,*"[there were] four suicides by male farmers in our area in one year"* (*Survey 378, SK*), these effectively representing the most devastating form of exiting.

In our study, BSE-associated farm exiting was generally reactive in nature and often compromised the economic standing and welfare of these farm families. As one respondent from Saskatchewan indicated, exiting strategies were largely driven by the exhaustion of available cash flow, *"The financial and psychological stresses were a catalyst for many to either give up farming or to not enter farming at all" (Survey 137, SK).* A sense of hopelessness for the future of the industry also pushed some farm households to exit, *"I saw no change in the future of livestock industry so I sold off my herd in March/05" (Survey 302, MB)*. Farm households that liquidated their cattle herd when cattle prices were severely depressed lost equity and

were left financially vulnerable, "*Others who sold* [cows] *at an extremely low price did not enjoy a large bank account." (Survey 683, AB).* Others wanted to exit the industry but were unable to do so, *"Myself, I want to sell my cows so that I can go out to work, but can't get enough money for them, so I feel I am trapped. I can't get out even if I want too. Soon the bank will force me" (Survey 1156, AB).*

BSE not only forced established farmers to exit but also discouraged prospective farmers from entering the industry - a phenomenon we refer to as "premature exiting". Many respondents expressed concerns about the implications of BSE for the next generation of farmers. As one respondent from Alberta indicated, *"Young farmers (age 20+) were so discouraged they turned to new careers" (Survey 309, AB).* Being less financially committed and with more years remaining to establish a non-farm career, young and prospective farmers were more able to adopt wage earning employment than older farmers. These sudden premature exits were also highly disruptive to farm succession plans and stressful for aging parents whose transition into retirement was predicated on familial succession, *"We should be retired from farming but our son cannot buy us out and we can't quit because we have more debt than we ever had" (Survey 837, SK).* Farmers worried about the broader impacts that the out-migration of farm youth would have on the community, "*The young people are not going to stay. [They] are what stimulates the communities, builds the schools and buys the groceries…There are no young people left in agriculture." (Focus Group 8, AB).* The loss of 'the next generation of farmers' is viewed by farmers as one of the greatest threats to the future of rural communities (Ashraful and McLachlan, 2009).

2.3.6 Degree of Commitment and Reversibility

Innovating, enduring and exiting adaptations range from minor to major commitment and reversibility (Figure 2.4). Thus, land dispersal and out-migration represents a higher degree of exiting because it is much harder to re-enter farming once land and any associated infrastructure are sold. Conversely, ceasing agricultural operations while retaining land ownership represents a lower degree of exiting because it then becomes easier to re-enter livestock production. Shifting to organic production represents a relatively high degree of innovating because the transition involves substantial investments of time, infrastructure and money. In contrast, direct marketing to friends and family represents a lower degree of innovating as it builds on existing relationships and requires little additional financial investment. In turn, reducing family recreation spending represents a lower degree of enduring than using all of a household's savings to stabilize the farm enterprise. Our 'degree of commitment' resonates with the coping-adaptation spectrum identified by Berkes and Jolly (2001). Within each of our three adaptation types, specific adaptations that are low in commitment could be considered to be coping strategies and responses that entail higher commitment could be deemed as adaptations. However, we propose that using 'degree of commitment' as a measure of adaptation avoids dichotomizing responses into coping versus adaptation strategies which allows researchers to consider the full range of responses to GEC and monitor the degree to which minor adaptations and major adaptations interact as a part of larger farm adaptation strategy.

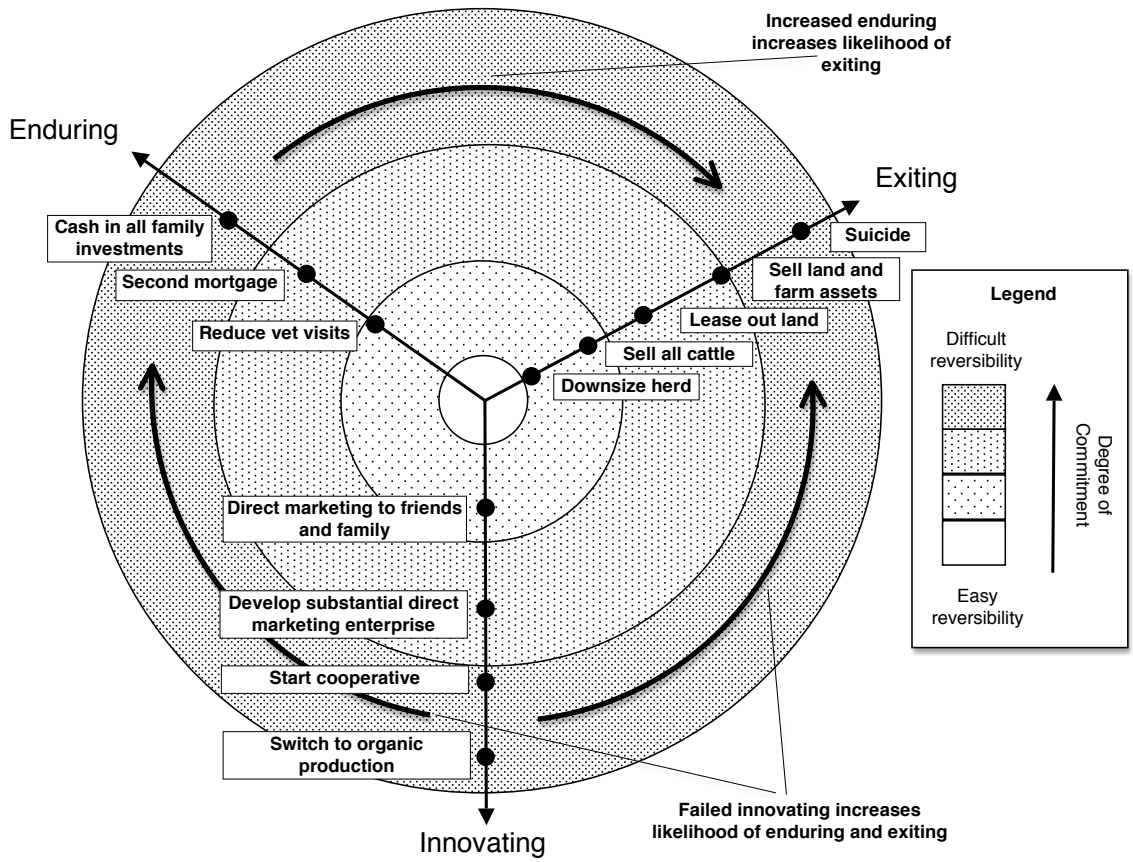


Figure 2.4 - Conceptual model indicating examples of each adaptation type and the degree of commitment that each adaptation strategy represents.

2.4 Discussion

In our study, enduring adaptations, those that were used in attempts to retain the status quo, were important responses to BSE yet seem to be less prominent in other GEC research. Although some enduring adaptations entail a minimal commitment on the part of the farm households and could thus be seen as temporary (and less central) coping responses (Berkes and Jolly, 2001), our results suggest that the "chronic enduring", where one enduring responses leads to the next, erodes adaptive capacity, and undermines the capacity to undertake more proactive adaptations. Enduring adaptations, in our study,

were linked to declines in economic, social (e.g. exhaustion, stress) and natural (e.g. over-grazing paddocks) capital. Soil erosion, pollution of waterways and overstocking-associated introduction of disease into wildlife populations were seen as consequences of enduring adaptations that will have long-lasting, although often under-appreciated environmental and social implications. The otherwise important role of farmer as environmental steward and community member is undermined by the pervasiveness of enduring strategies and the associated focus on short-term economic need. In the context of rural decline and recurring crises in the beef sector, chronic enduring is being reinforced as an accepted norm in Canadian 'farm culture' (Mitra et al., 2009) and, indeed, a central farm household adaptation strategy.

Our results demonstrate that familial adaptations occur concurrently with those in farm operations but arguably become critical in times of extreme crisis. The importance of familial adaptations to economic stressors has been well documented outside of the context of GEC (Brookfield, 2008; Chayanov, 1987; Johnsen, 2004; Smithers and Johnson, 2004). However, familial adaptations have been relatively unexplored in the GEC literature (e.g. Bradshaw et al. 2004; Bryant et al., 2000) where the focus has primarily been on technological, agronomic and other operational adaptations (e.g. adoption of novel technology, insurance). In our study, familial adaptation were important in all three adaptation types. Enduring adaptations included economic and social compromises on the part of the family, including cashing in personal savings, reducing expenditures on recreation and withdrawing from community events and functions. Grassroots innovating adaptations (Seyfang 2007) were enabled by interpersonal connections and social networks among families, for example, when farmers engaged in direct to consumer marketing to friends and family, when they participated in

holistic management clubs, or when they worked with other farm households to form slaughter or marketing cooperatives (Anderson and McLachlan, 2008). Finally, family members are obviously central in obtaining off-farm employment and while exiting from agriculture and transitioning to a non-farm livelihood. Our findings are reflective of the historic importance of the household in the adaptive strategies of farm families (Brookfield, 2008; Chayanov, 1987). However, others have observed a decoupling of the operation and the family in modern agriculture (Johnsen, 2004), which will present new challenges for farm households, and for agriculture as a whole, that formerly relied heavily on familial adaptations.

Recognition of farm exiting as an option in existing typologies is minimal and farm exits are rarely explored in detail. Because most farm-level adaptation studies focus on the farm enterprise as the system of interest and typically define adaptations as actions that preserve or improve the vitality of the farm *operation* (e.g. Belliveau et al., 2006; Smit and Skinner, 2002), farm exiting may be viewed as maladaptation or a failure to adapt. However, if the farm *household* (enterprise and family) is seen as the system of interest, farm exiting may indeed be an appropriate way of preserving the household if the farm enterprise is no longer seen as viable. The ongoing decline in farm numbers in North America, and indeed around the world suggests that exiting is indeed a pervasive and important form of adaptation. In the Canadian prairies, farm numbers have declined 19.6% from 140,385 in 1996 to 112,814 in 2006 (Statistics Canada, 2006) and these data reflect nothing about downsizing as a more moderate form of exiting nor of the "pre-mature" exiting found in our study and elsewhere (Cook et al., 2011), where young and prospective farmers turn to non-agrarian livelihoods. Farm exiting, farm entry and farm transfers between generations are challenging processes that require further consideration

in adaptation research and increased government support (Lobley et al., 2010), especially during times of crisis.

Although our interest was in the farm household, our results also provide insight into the role of government and powerful institutions in shaping local adaptation. In managing the BSE crisis, the Canadian federal government worked most closely with highly influential actors in the beef industry (e.g. large producer organizations, slaughterhouses, feedlot operators, banks, etc.) while encouraging producers and the general public to wait the crisis out and that a return to normalcy was inevitable and desirable (Charlebois and Labrecque, 2007). One of the predictable outcomes of this top-down process is that it was the larger and more powerful actors that received the most compensation (Stozek, 2008) relative to those that were less influential (e.g. cow calf operators, family farms, direct marketing operations, regional abattoirs). These unequal power dynamics encourage and enable governments to support adaptations that maintain the status quo (Leach et al., 2010) rather than facilitate change-orientated adaptations that have the potential to redistribute power to less influential actors and to affect more proactive adaptations and change.

Indeed, some (e.g. Klein 2007) have argued that crises, such as those associated with zoonotics, allow powerful actors not only to perpetuate the status quo but also to enable change that ensures their dominance in society while marginalizing alternatives. Thus, one-size-fits-all regulatory changes in the meat processing industry, such as those implemented in Canada in response to BSE, disproportionally encumber smaller and start-up processing plants who lack the capital and economies of scale to invest in bringing facilities into compliance (DeLind and Howard 2008). These regulations thus provided a competitive edge to (i.e support adaptation in) the already well established and

highly concentrated meat-processing industry in Canada (Hatt and Hatt, In Press). Producers in our study called for governments to support grassroots innovations that would increase domestic slaughter capacity, to facilitate the creation of producer-owned slaughterhouses and to diversify export and domestic market opportunities, Instead, governments predominantly focused on regulation-based mitigation strategies to re-establish pre-BSE trade and production conditions in the cattle industry. Government support for adaptation at the farm level focused on enduring adaptations that were congruent with a desire to return to the status quo (Charlebois and Labrecque, 2007; Ostercamp et al., 2010), and a valuable opportunity to support a wider diversity of rural adaptations was lost.

2.5 Conclusion

In our study, farmers and ranchers adapted to the BSE crisis using three main strategies: 'innovating' adaptations in the pursuit of new opportunities and change; 'enduring' adaptations that strive towards regaining stability in the farm enterprise; and 'exiting' from beef production or agriculture altogether. Our typology compliments those developed in the context of adaptation to climate change (e.g. Berkes and Jolly, 2001; Kurukulasuriya and Rosenthal, 2003; Smit and Skinner, 2002) by emphasizing the under-appreciated role of the family or household in farm adaptation, the relative importance, but often unexplored role of enduring adaptations and the unexplored potential of grassroots innovating adaptations in facilitating multifunctional responses to GEC.

The majority of GEC research focuses on agricultural adaptation to the direct environmental impacts of GEC and particularly those that affect yield and production. In

contrast, this study focused on the indirect impacts of a global zoonotic disease epidemic or those impacts that were mediated through changes in the global market and in agro-food governance. As a whole, GEC will inevitably result in concomitant political, economic and cultural change that, for some groups and individuals, will surpass the challenges associated with the direct environmental impacts of GEC. The indirect impacts of GEC represent an important dimension of vulnerability, especially for farm households and communities that are dependent on global trade and affected by changes in resource management policy and food safety governance. Future research should attend to the relative importance of the indirect impacts (or opportunities) associated with GEC and how these might contribute to or perhaps offset vulnerability across regions, groups and households to GEC.

Whereas agricultural adaptation to climate change tends to be incremental in nature (Smit and Skinner, 2002), the BSE crisis forced farm households to make abrupt enduring, innovating and exiting adaptations. Our findings thus reflect adaptation to a crisis with rapid onset where exiting strategies were more likely, the need for enduring responses more urgent and the stimuli for more drastic innovating responses more visible. Our framework is thus most applicable to evaluating adaption to the extreme direct or indirect crisis associated with GEC such as the market crash experienced during the BSE crisis or a drought or flood year. Yet, these three adaptation processes are arguably occurring, albeit at a slower rate of implementation, in response to a multitude of stressors and opportunities.

It is well demonstrated that few farm households rely solely on commodity production to support their livelihoods and that most also pursue multifunctional activities (i.e. extra-agricultural) (e.g. van der Ploeg et al., 2009), which often include non-

farm employment or pluriactivity (Kinsella et al., 2000). Yet, most GEC adaptation research focuses on (commodity) production-orientated adaptation strategies. This gap likely exists because, in the context of the production risks posed by climate change, policy-makers and scientists are primarily concerned with maintaining and increasing food production at national and international scales of organization. However, by shifting our focus to adaptations that seek to improve farm livelihoods and support rural communities, we highlighted the importance of familial and multifunctional strategies in rural adaptation. Confronted by rural/farm decline and impending stressors associated with GEC and other forms of environmental and socio-political change, farm households are making adaptive decisions that go beyond maintaining (enduring) or improving (innovating) commodity production. They are also adopting strategies that add value to farm products (e.g. van der Ploeg and Renting, 2004), that deliver environmental or agro-tourism services (e.g. van der Ploeg et al., 2009), that glean income from non-farm employment or entrepreneurship (e.g. Kinsella et al., 2000), and that draw from and contribute to the social and cultural capital in rural communities (e.g. McLachlan and Yestrau, 2008).

The challenges associated with predicting and controlling zoonotic diseases are being exacerbated by the intensification of global meat and livestock trade (Delgado et al. 1999) and by climate change as it facilitates their spread (WHO, 2004). Our study focused on BSE, but farm households around the world have been, and inevitably will continue to be, exposed to impacts associated with other known and emerging global zoonotic (e.g. avian and swine flu) and livestock diseases (e.g. foot and mouth disease). While mitigation strategies are clearly important to lessen risk, support for enhancing farm household and community adaptive capacity is also desperately needed. This can, in

part, be facilitated by supporting both expert-driven and grassroots innovating adaptations, by recognizing and assisting farms that are trapped in a cycle of chronic enduring, and by facilitating effective farm exiting and farm entry, especially in times of extreme crisis. By embracing a more balanced and community and regional approach to adaptation, appropriate governmental support would become more proactive and facilitate a much wider diversity of adaptations. Government decision-making would ideally involve those most affected by these crises to help more effectively anticipate the rural consequences of zoonotics like BSE but also to ensure that farmer needs are prioritized and to enable the survival of farm households and rural communities now and into the future.

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3 Cycle 2 - Navigating the Fault-lines in Civic Food Networks

This chapter is in accepted for publication:
Anderson, C. R., McLachlan, S. M., McDonald, W., & Gardiner, J. (Accepted). Negotiating the fault lines in civic food networks. Journal of Agriculture, Food Systems and Community Development.

Following the guidelines set forth by the University of Manitoba, it should be noted that this co-authored manuscript was led by the intellectual effort of the student.

Abstract: Civic Food Networks have emerged as a civil society driven response to the social, economic and environmental shortcomings of the industrial food system. They are differentiated from other forms of alternative food networks in that they emphasize cooperation over independence, focus on participatory democratic governance over hierarchy and serve both social and economic functions for participants. Yet there is little understanding of the processes of cooperation, particularly amongst farmers. In this five-year action research project, we documented the development of a farmer-driven civic food network in southern Manitoba on the Canadian Prairies. In this case study, we explore the relations among farmers to better understand the potential of civic food networks to contribute to a more resilient and locally controlled food system. Our findings highlight the tensions and power dynamics that arise through the processes of re-embedding farmers in more interdependent relations. Fractures occurred in the group when negotiating the diverse needs and values of participants, which manifested themselves in disputes over the balance of economic and extra-economic organizational pursuits, over the nature of the cooperative distribution model and over quality standards. Asymmetrical power relations also emerged related to gender and generational differences. Although social embeddedness and civic governance did lead to enhanced relations and trust, these positive outcomes were unevenly distributed and coexisted with feelings of distrust and acrimony. In order to realize their full potential, proponents of civic food networks must confront difference in order to embrace the strength that comes from diversity in the process of building more resilient, and civic, food networks

3.1 INTRODUCTION – CIVIC FOOD NETWORKS

The processes of agro-industrial intensification has generally destabilized the livelihoods of small and medium sized farms and eroded the social, economic and environmental capital that underpins the resiliency of rural communities around the world (Wilson, 2010). Growing concerns over the human and environmental impacts of commodity agriculture have led to a wide diversity of alternative food networks that revalorize rural space and work towards a more just and sustainable food system (Blay-Palmer, Landman, Knezevic, & Hayhurst, 2013; Goodman & Goodman, 2007; Renting, Marsden, & Banks, 2003).

Alternative food networks broadly represent, *"forms of food provisioning with characteristics deemed to be different from, perhaps counteractive to, mainstream modes which dominate in developed countries"* (Tregear, 2011, p. 419). This marks a shift in emphasis from a generic focus on maximizing export commodity production towards a multifunctional understanding of agrarian landscapes and communities (Wilson, 2010). Alternative food networks pursue rural land uses that promote ecologically sustainable and humane agriculture practices, the production of value-added "quality" food products and reconnecting consumers and farmers in a moral economy of food (Goodman, 2003; Goodman, 2004).

The concept of Civic Food Networks (CFNs) was recently developed by Renting et al. (2012) in the European context and represents a sub-set of alternative food network initiatives that emphasize civic governance mechanisms and community-based food distribution. Rather than relying on conventional food system infrastructure (Bloom & Hinrichs, 2011) citizen participants in CFNs cooperate to coordinate and control most, if not all, of the steps from farmer to consumer. In contrast to the conventional food system

and market-focused alternative food networks, CFNs de-emphasize market-based governance mechanisms such as labeling, price and marketing. Rather, they emphasize civic governance mechanisms including cooperation, participatory democracy, solidarity, self-organization, local control and autonomy – all of which reflect an attempt to empower citizens to shape their food provisioning (Hassanein, 2003; Seyfang, 2006).

In North America, the earlier conceptualizations of "civic agriculture" were rural in orientation and emphasized the processes of collective problem solving as the foundation of resilient agrarian communities (Lyson, 2004). More recently, the focus has turned towards conceptualizing CFNs as urban and consumer driven through research on sustainable and green consumption (Johnston & Szabo, 2010), on the consumer-citizen hybrid (Lehner, 2013) and on the active role of consumers in organizing CFNs (Brunori, Rossi, & Guidi, 2012; Franklin, Newton, & McEntee, 2011; Little, Maye, & Ilbery, 2010). Renting et al. (2012) follow this pattern in their latest definition of CFNs requires the active participation of consumers in CFN governance. This emphasis on urban actors and on citizen-consumers inadvertently excludes CFNs that are primarily farmer-driven and that emerge from rural space. However, citizen-farmers can also play a key role in building civic food networks, regardless of any active participation of consumers in their governance (e.g. Trauger and Passidomo, 2012). Cooperation, especially amongst farmers, has received relatively little attention across the civic and alternative food network literature, which generally overlooks the organizational processes and social relations that underpin collective problem solving.

3.1.1 Embedding and Disembedding Relations in CFNs

Civic food networks are often defined by their explicit focus on re-embedding food exchange in a deeper relational context as a counterpoint to the abstract logic and anonymous relations that undergird the market-calculus of the dominant food system (Higgins, Dibden, & Cocklin, 2008; Hinrichs, 2000; Izumi, Wright, & Hamm, 2010; Milestad, Bartel-Kratochvil, Leitner, & Axmann, 2010; Sonnino, 2007). Alternative food network research has focused primarily on farmer-consumer market relations and draws on Granovetter's (1985) notions of social embeddedness to characterize these relations as being based on trust, regard and reciprocity (Izumi et al., 2010; Milestad et al., 2010; Sage, 2003; Sonnino, 2007).

The limited research on cooperative relations amongst farmers in alternative food networks has focused primarily on informal networking, loose ties, and bilateral relations, for example among vendors at farmers markets (e.g. Griffin & Frongillo, 2003). These informal relationships produce both economic and social benefits through the exchange of knowledge and skills, by fostering new friendships and by providing relief at each other's stalls reflecting the potential social and economic benefits derived from farmer-farmer interaction (Chiffoleau, 2009; Griffin & Frongillo, 2003; Lawson, Guthrie, Cameron, & Fischer, 2008; Milestad et al., 2010).

However, Wittman Beckie, & Hergesheimer (2012) found that vendors at farmers markets were averse to engaging in any form of cooperation that threatened the direct connection between farmers and consumers. Further, Glowacki-Dudka, Murray, & Isaacs (2012) conclude that diverging goals and a lack of trust amongst actors involved in local food production can obstruct cooperativism. These findings allude to the potential

challenges of the more substantial and interdependent forms of cooperation required in CFNs and suggest that cooperation itself might be a contested practice.

More involved and formalized cooperation between farmers in alternative food networks can reduce transaction costs (Verhaegen & Van Huylenbroeck, 2001) and help farmers overcome the 'tyranny of distance' in remote rural locations (Trauger, 2009). Yet, cooperative alternative food networks may also reproduce the problems associated with the conventional food system, including the exploitation of farm workers (Trauger, 2009), the marginalization of smaller farms (Brunori, Cerruti, Medeot, & Rossi, 2008) and social exclusion (Franklin et al., 2011). Internal fissures have been identified in these initiatives reflecting the often-conflicting needs, values and quality claims (e.g. organic versus local) amongst members (Brunori et al., 2008; Sonnino, 2007).

These findings suggest that any conceptualization of social embeddedness and cooperation must also consider the dis-embedding forces (Sayer, 1997) that express themselves in the form of self-interest (Hinrichs, 2000) and socio-cultural differences. Indeed, the most recent conceptualizations of CFNs (Renting, Schermer, & Rossi, 2012) appear to place to much emphasis on the positive outcomes of these renewed civic relationships, and could be augmented by considering how culture and power shape these embedded economies (Sayer, 2001; Sonnino, 2007). This is especially important as a growing number and diversity of farmers, consumers and other actors are attracted to local food (Mount, 2011), bringing with them multiple and often conflicting values and agendas that must be negotiated in the development of CFNs.

3.1.2 Local Food as a Contested Concept: Meeting Place or Arena of Struggle

Local food is positioned as a core discourse in CFNs, however, the term "local" widely criticized as being vague in meaning, subject to multiple interpretations and malleable in application (Born & Purcell, 2006; Eriksen, 2013; Mount, 2011; Selfa & Qazi, 2005; Tovey, 2009). The flexibility of the "local food" concept has provided purchase across the political spectrum and underpins its growing resonance as a mobilizing concept. Thus, 'local food' has been incorporated in CFNs but also into top-down state policy (Hinrichs, 2012) and as a corporate marketing strategy (Johnston, Biro, & MacKendrick, 2009). As such, local food has been criticized for being susceptible to cooptation by powerful elites, which can undermine its legitimacy and its potential for leading to more substantial political change (Johnston et al., 2009; Tovey, 2009).

Yet, the flexibility of local food as an organizing concept also makes it useful for bringing together otherwise diverse and disconnected rural constituents to imagine and enact CFNs (Chiffoleau, 2009; Connell, Smithers, & Joseph, 2008; Milestad et al., 2010; Sage, 2003). Local food can have different interpretations between groups and individuals, yet is often assumed to represent a shared set of values where the multi-dimensional qualities of "'good food' gets bundled into a 'local food systems package' wherein organic is good, family-scale farming is good, local is good, natural is good, and shopping at farmers' markets is good" (Connell et al., 2008, p. 181; also see: Sage, 2003).

However, because local food draws together actors with diverse values, needs, and priorities (DuPuis & Goodman, 2005) local food many not always be a benign meeting place, but can also become an arena of contention and struggle (Tovey, 2009) between competing interpretations and practices of local food. In *specific* practice, CFN

participants ascribe idiosyncratic meaning, not only to local food but also to what constitutes good food and good farming (Ostrom, 2006; Selfa & Qazi, 2005). The diverse interpretations and practices of local food are not necessarily compatible and lead to a politicized terrain for the further development of collective action (Tovey, 2009).

In this paper, we examine the relations among farmers and farm families in CFNs to better understand the potential for CFNs to expand the relevance of local food and to contribute to a more resilient and locally controlled food system. The objectives of our study were to: explore to what extent 'local food' can create a meeting space for farmers to engage in CFNs; understand what motivates farmers to get involved in CFNs; examine how these initiatives evolve over time and why and; to understand the barriers that confront CFNs and how these can be overcome.

3.2 Methods

In this paper, we present a single case study documented as a part of a Participatory Action Research project that involved the development of a CFN in the Canadian Prairies called the Harvest Moon Local Food Initiative. Participatory Action Research (PAR) is increasingly used in agri-food studies (e.g. Charles, 2011; Lyons, 2012) and reflects a range of research approaches where community and academic researchers work together in deliberate processes of organizational and social transformation (Creswell, 2013). Through iterative cycles of inquiry, PAR involves the integration of research and action and of theory and practice, *"in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their communities"* (Reason & Bradbury, 2008, p. 4).

Conventional research approaches are often extractive in nature and produce few tangible benefits for research subjects (Cameron & Gibson, 2005). In contrast, PAR explicitly seeks to produce and apply knowledge that is immediately relevant in the local context (Kindon, 2005). This however does not preclude the simultaneous production of conceptual and theoretical contributions that are transferable to other settings through diverse forms of knowledge mobilization (Anderson and McLachlan, Forthcoming). For example, our research team produced a diversity of research outcomes including, most immediately, the development of a successful CFN, but also the publication of videos, academic articles, and blog postings to more broadly communicate our findings.

In contrast to the positivist notion that researchers must be objective, value-free and separate from research subjects (England, 1994; Maguire, 2001) PAR practitioner-researchers are actively involved as contributors to the organization or situation under study. Our research project was structured as a collaborative process of reflective community development where academic and community co-researchers cooperated in the design of the research agenda and in the implementation of the 'action'.

The research questions addressed in this paper emerged from the experience of the larger group of participants and evolved as the project unfolded. Four HMLFI contributors participated on a research committee that authored this final paper-based outcome. The senior author (*NAME*) was an active and central participant throughout the entire project (in the action) and facilitated data analysis and writing. *NAME* and *NAME* are both farmer members of the HMLFI and provide ongoing input through collaborative analysis and writing workshops. *NAME* was a founding member of Harvest Moon Society, the not-for profit organization that initially housed the CFN and

helped shape the over all project and also provided input in the collaborative analysis and writing processes.

This study reflects five years of data collection and draws from the experiences of the research committee, from organizational documents, from field notes and from interview transcripts that were initiated at the very first meeting of an informal group that would go on to form the HMLFI. The authors participated in over 50 formal meetings over this period. We also drew from meeting minutes, three funding applications, reports to funders, a pre-feasibility study, a feasibility study, a business plan and the organization's website. Individual interviews included 19 in-depth interviews with 25 members of participating farm families. These interviews ranged from one to four hours in length and were transcribed and coded in NVivo to identify emergent themes. All interviews and several meetings and group events were captured using video and, when appropriate, we present these data as video clips to give active voice to research participants and allow the reader to better visualize, and thus further understand, the narrative and context. Finally, a draft of this paper was circulated to all participants in the HMLFI and follow-up phone calls or face-to-face meetings (n=12) were arranged to review the paper for the purpose of soliciting feedback, thus confirming the validity of the analysis.

3.2.1 The Territorial Context

The Harvest Moon Local Food Initiative (HMLFI) is located approximately 200 km southwest of Manitoba's largest city (Winnipeg) in the Canadian Prairies. Since its outset in the late 1800s, settler agriculture in the region has been based on agro-industrial, high input, intensive and export-focused modes of grain, oilseed and livestock production

(Rudolf & McLachlan, 2013). Prairie agriculture has been described as being in a state of chronic crisis (Bessant, 2007) contributing to the declining profitability of family farming, environmental degradation and rural depopulation. On May 23, 2003, the discovery of BSE in Canada triggered a socio-economic crisis that exacerbated this longer rural emergency. Direct farm marketing, cooperatives and value-added niche food production emerged as important grassroots responses (Anderson & McLachlan, 2012), providing a point of departure for the development of the HMLFI – a cooperative local food initiative that would market value-added food (more) directly to consumers.

3.3 Case study – The Harvest Moon Local Food Initiative

3.3.1 Phase I: The Honeymoon Phase - Celebrating Common Ground?

In August 2006, two of the authors (Anderson and McLachlan) toured three local livestock farms in the Clearwater area. Each of the farmers was minimally engaged in direct farm marketing and expressed enthusiasm over the growing consumer interest in local food. However, they also indicated that the time and resource demands of direct marketing prohibited them from expanding their engagement in LFIs. These preliminary discussions suggested that a CFN might help farmers overcome these challenges. Based on these interactions, Anderson and McLachlan initiated a scoping meeting in December 2006, inviting farmers who originally expressed an interest in developing a CFN and others identified through referral. Most participants in this initial meeting agreed that the concept was sound and the group went on to develop the HMLFI.

Group Profile

The 14 founding farm families managed 4365 acres of land dedicated to field crops, 8965 acres of hay and pastureland that supported 1660 head of beef cattle, 750 pigs, 500 ewes and 4200 meat chickens. One participant operated a feedlot, another was a meat processor and an additional member family established a butcher shop after the HMLFI was created. One family also had a market garden and another a well-established organic flour direct marketing enterprise. Almost all members produced livestock, however the group was heterogeneous in terms of production practices (e.g. organic, conventional, holistic resource management), marketing approaches (e.g. degree of experience in direct marketing) and previous relations with other group members (e.g. kinship, friendship, weak ties or no previous acquaintance).

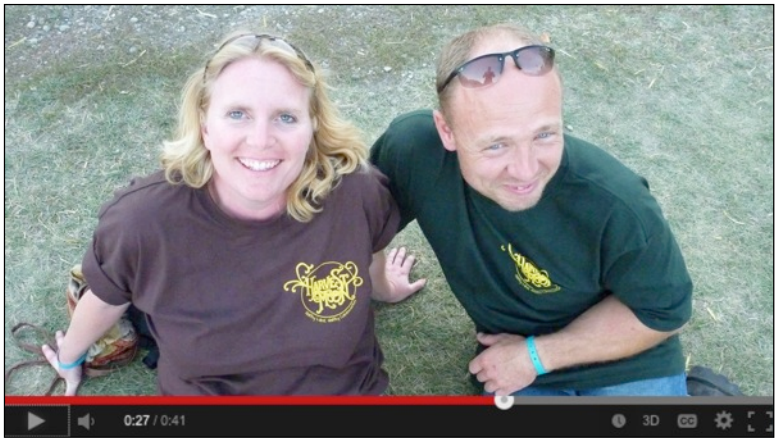
Motivations for Participation

Motivations for forming the CFN are categorized as either instrumental/market or extra-instrumental/non-market (cf Hinrichs, 2000; Izumi et al., 2010). Members related to all of these individual motivations to some degree; however, each had distinct priorities.

Instrumental-market

Some participants sought to expand the customer base of their already established direct marketing business (expansion motivation), "...With Harvest Moon's help I think within another two years I could probably be selling almost everything directly" (Wayne McDonald). Others hoped the collaboration would reduce opportunity costs associated with managing multiple relationships in their direct marketing businesses (time saving

motivation)**,** "Our hands are full now just with the production and processing; we really don't have time for the marketing and delivering any more." (Dan DeRuyck). Members expressed a desire for learning and for pooling intellectual resources (innovation motivation), "One producer can make a lot of mistakes, but you get a half a dozen together, you make a lot less mistakes and make better decisions" (Anonymous). Those who were primarily selling through commodity markets, wanted to reduce dependence on corporate intermediaries and gain more control over price setting (control motivation; price motivation), "…if we create our own market and our own chain to get it to the consumer then we have a little more control over what our bottom line is going to be…" (Don Guilford)



Video 3.1 - Pam and Clint Cavers describe how the Harvest Moon Local Food Initiative has given them a peer support network, which has affirmed their values and allowed them to become more effective educators. http://www.youtube.com/watch?v=S9JIaVvFYeY

Non-instrumental/Extra-market

Many participants expressed a desire for closer social connections with farmers practicing sustainable agriculture, in part reflecting a need for a support network for otherwise isolated 'alternative' farmers *(community-building motivation)*,

> *…I feel because we're a part of this, and we've felt so isolated as far as the kind of things we've been doing for so long. I'm a lot more relaxed, because I don't feel like such a weirdo anymore. I am still weird [laughs], but it doesn't feel as bad (Clint Cavers, Video 3.1).*

For others, who were mainly selling into commodity markets, the CFN offered an opportunity to receive positive feedback from peers, customers and the general public, supporting a sense of pride in providing a high quality and differentiated product *(pride motivation)*, *"That's why I'm so enthused about the Harvest Moon, it's just going to be able to produce a better product…" (Anonymous).* Some farmers described their interest in experimenting with social-economic projects that offered an alternative to conventional economic enterprise (*alterity motivation*), *"I'm there because I'm so interested in the whole social* [economy] *concept, communication, how people talk about things like this…"* (Sandy DeRuyck). Finally, members saw the CFN as an opportunity to help support the next generation of farmers *(succession motivation)*, *"The big benefit from this group I may never see in my farming days. It's the next generation…that's going to benefit from this"* (Anonymous). In many cases, the conceptualization of the "next generation" extended beyond kinship and included any youth interested in pursuing agriculture as a livelihood.

Together, the members subsumed all of these individual motivations under one common vision statement, "*We are a local community committed to ethically producing and marketing high quality, healthy food for the betterment of humankind and the environment now and for generations to come"* (HMLFI, 2007). This vision unfolded into three main objectives: increasing their proportion of each food dollar, broadening public outreach and farmer training relating sustainable agriculture and local food, and sharing what was learned with other farmers (HMLFI, 2007). The vision and objectives were intentionally ambiguous and inclusive to accommodate the wide diversity of founding participants. Some felt that the excitement of the 'honeymoon phase' led to a false sense of unity because it lacked specificity, *"It went too fast…we needed to spend more time at the beginning figuring*

out what we really wanted to do…it was very philosophical… it's a wonderful idea, but it's got to be focused" (Sandy Deruyck).

Although originally envisioned as a multi-product food hub, the group instead focused their efforts exclusively on marketing meat, whereby farmers would pool their products in a collectively owned entity (HMLFI) that would then coordinate all aspects of marketing and distribution (figure 3.1 – "we sell" model). The group sought to appeal to consumers, first by harnessing the growing interest in local food, and second, by differentiating their food products from 'conventional food' as superior in taste, animal welfare and environmental sustainability. Consumers would buy HMLFI food through a web portal and wholesale buyers would be approached directly to negotiate bulk orders. After almost two years of planning, the HMLFI 'launched' in September 2008 with much fanfare reflecting a sense of hope and optimism, *"…it's a culmination of a lot of…nights and a lot of hard work…it's pretty exciting…For me, it's a future in farming…"* (Wian Prinsloo, video 3.2).

Video 3.2 - Launch of the Harvest Moon Local Food Initiative at the fall music and rural culture festival in 2008. http://www.dailymotion.com/video/x8uv5e_harvest-moon-local-food-initiative_people

3.3.2 Phase II: Domestic Disputes: Finding Difference

HMLFI sold only $10,000 worth of products over the next six months, well short of their expectations. During this period a range of unresolved conflict surfaced, ultimately leading to the dissolution of the CFN in its original form. These divisions, discussed in the next sections, were related to disputes over the prioritization of economic versus non-economic organizational pursuits, the distribution model, the quality standards and also reflected divisions based on gender, e-communication literacy and generational differences.

First Divide: Economic Versus Non-economic Organizational Pursuits

The first HMLFI organizational objective suggested that the most common and immediate collective goal was economic in nature. The second and third objectives however reflected that the group was simultaneous interested in pursuing social and ecological outcomes. This mixing of the social, economic, environmental and political in the workings of the HMLFI later emerged as a source of tension. Some members viewed the initiative primarily as a business, *"To me you've got to look at it from business-type thinking and it's not just put together to promote idealistic thinking" (Don Guilford).* In contrast, others emphasized that alterity and challenging the status quo was an important end in of itself for some participants, *"I keep hearing from people who are looking for a TRUE alternative to the conventional food system and selling boxes of meat wholesale is no alternative... I don't see how we're doing anything really different here…" (Jason Andrich, coordinator of HMLFI).* Wayne indicated that many members felt that, *"This isn't just a marketing group,"* and were frustrated when only

some members contributed towards, *"The youth projects etc.* [that] *become a point of contention within the group and contributed to the bunker mentality that emerged" (Wayne McDonald).*

Second Divide: Distribution Model(s)

Although the HMLFI proceeded with a single distribution model as a seemingly cohesive group, it later emerged that almost half of the participants were disinterested in the chosen model (pooling products, selling to restaurants, focusing on meat products), and had been all along. Soon after the launch, some members perceived an irreconcilable division between farmers who wanted to combine their products under a single brand or what the group called the pooled or "we sell" approach and those who wanted to sell directly from farmer to consumer under the label of the Harvest Moon with the option of coordinating transportation and ordering, or what the group called the direct or "I sell" approach (figure 3.1).

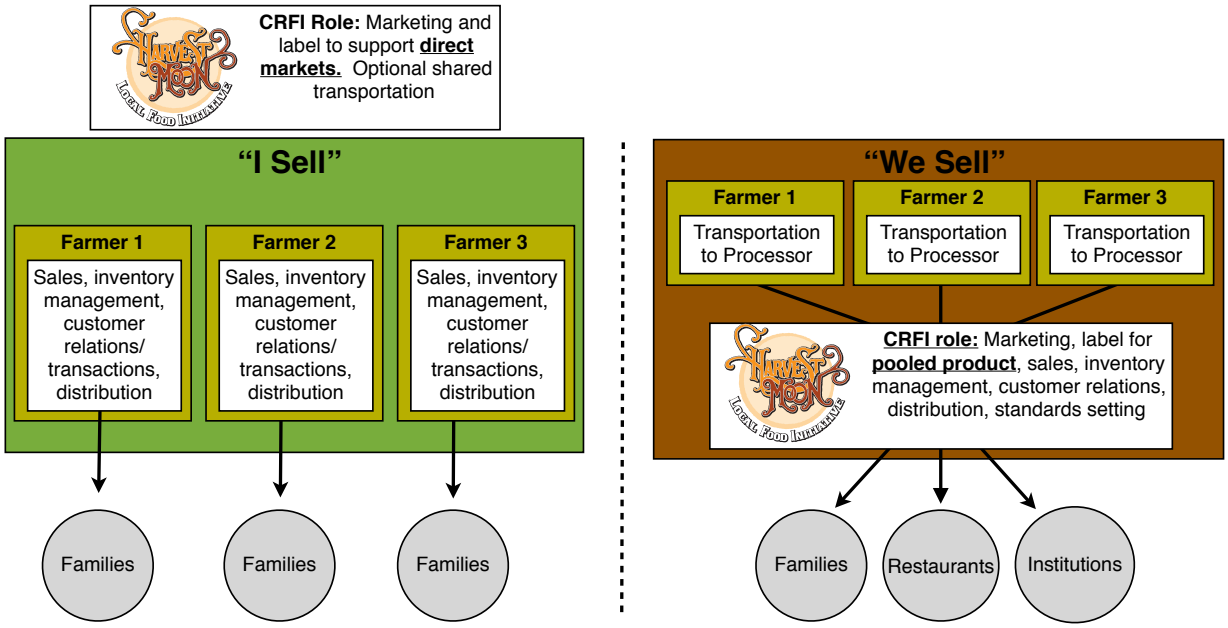


Figure 3.1 - Schematic of "I sell" – "we sell" distribution models that divided the members of the Harvest Moon Local Food Initiative.

As the focus on the "we sell" approach was consolidated through funder support and business planning and market development processes, all alternative development pathways were effaced and those interested in the "I sell" model became excluded, *"What were they going to do? They had no control, they had no power, they didn't know what to do; what could they do?" (Sandy DeRuyck).* The sidelining of these voices was exacerbated by governmental business planning advisors who recommended focusing exclusively on the "we sell" meat marketing model as it was most easily accommodated within a conventional business planning approach that focused on volume sales, *"It was the consultants who set us down a path that focused on meat and the business instead of the farmers and the food" (Clint Cavers).*

The split between "I sell" and "we sell" reflected, in part, differences in the degree to which farmers were open, or able, to establish more involved relationships with their customers. One of the "I-sellers" noted, *"There is no reason that we shouldn't see our customers all the time" (Clint Cavers)* while in direct contrast, a "we-seller" commented, *"I mean we can't have our consumers here all the time..." (Don Guilford).* Thus, many "we-sellers" resisted the idea that their farm should regularly be open to consumers, whereas I-sellers often saw this as an integral function of the farm and an important way to generate consumer trust. Don and Clint's diametrically opposed sentiments also reflect that not all farmers derive personal fulfillment from interacting with consumers (Kirwan, 2006; Sage, 2003). Indeed, Don later indicated that the relationships with industry professionals in the conventional food system (e.g. cattle buyers) were based in an exchange of mutual technical understanding of agriculture and thus for him were more socially enriching than interacting with most urban consumers.

Yet, the "I sell" approach was criticized by the "we-sellers" as being too burdensome for farmers and as creating the very same barriers to individual direct farm marketing that the mid-sized farmers sought to overcome. Jo-lene described how the "I sell" approach was focused on consume priorities, although it aligned well with goals of educating urbanites about sustainable agriculture and local food, *'Direct marketing is perhaps more effective for changing the way that people think about food. It however, isn't necessarily better for the farmer' (Jo-Lene Gardiner)*.

The "We-Sellers" were uninterested in taking on the additional labor that the "I Sell" model required and sought a substantial degree of cooperation and thus a greater degree of interdependence. Keith describes, *"…I have no interest of marketing on my own…in getting beef done, putting it in the freezer and selling it piece by piece, not at all…I want to be able to take my animal to the abattoir, and then the food group markets it…" (Keith Gardiner, video 3.3)*.

Video 3.3 - Keith Gardiner describes the reasons he is not interested in direct farm marketing.
http://www.youtube.com/watch?v=HZM7t88YEyc

Don, one of the prominent "We-Sellers" expressed his frustration with some of the "I-Seller" goals in that they, *"Saw this being successful even if we didn't end up with a group at the end of the day… I'd be very disappointed if we don't have a group that continues on"* (Don Guilford). Indeed, the "I-Sellers" often referred to the HMLFI as a 'stepping stone' for individual producers to build their own businesses and to cycle out of the CFN (as suppliers) once they generated a sufficient consumer base.

Sandy explained how the importance of a robust individual identity for direct marketers acted as a barrier to a more collective approach, *"They'll lose their identity, they'll lose their direct contact with the customer and customers that they've worked hard to find" (Sandy Deruyck).* Thus the "I-Sellers" resisted any proposal that weakened their individual identity and autonomy. A "We-Seller" expressed his frustration with this more individualistic mindset, *"Through not marketing collectively, I believe the sense of community that develops when people work together for a common goal has broken down." (Don McIntyre).*

Late in the process, a hybrid approach was proposed where both the "I-Sell" and "We-Sell" distribution channels would be accommodated (figure 3.2). These two approaches would be synergistic in that the "I-Sellers", who typically turned away larger institutional buyers, could rather refer them to the "We-Sell" branch of HMLFI. Likewise, the "We-Sellers" who were uninterested in relationships with hundreds of smaller buyers, could rather direct smaller volume buyers to the "I-Sell" branch. The hybrid approach would allow for autonomy between the two distribution channels, but remain within mutually supportive organizational structure and common brand. Although this may have been a viable solution earlier in the process, by this point the group cohesion had disintegrated beyond repair, *"The hybrid model…could have worked, but the trust issues and relationships by that point had been so fractured..."* (*Wayne McDonald).*

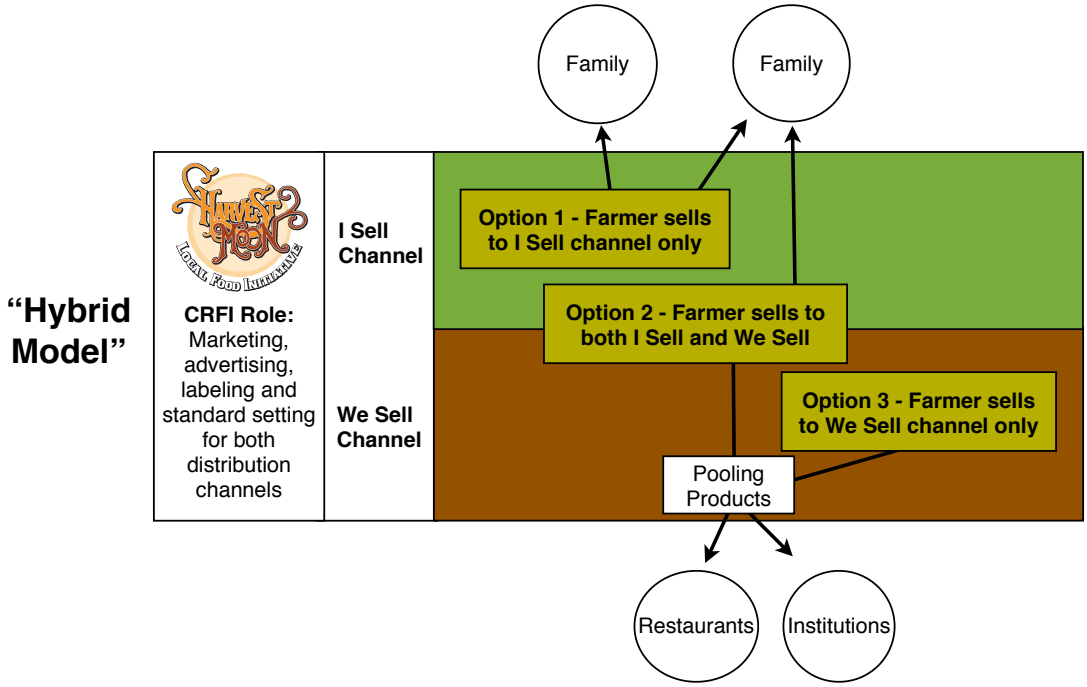


Figure 3.2 - The proposed hybrid distribution model that accommodated and supported both "I-Sellers" and "We-Sellers"

Third Divide: Good Food and Good Farming

Quality standards are used to generate added value by defining, codifying and regulating production practices, thus differentiating products from those using competing quality claims and guaranteeing product quality, however defined, to consumers. Rather than adopting a pre-existing quality certification and monitoring regime (e.g. organic), the HMLFI opted to develop their own. This choice reflected a desire to further maximize local control rather than delegating this power and responsibility to a third party. This decision also reflected a philosophy of inclusivity whereby adopting any available third party standard would have immediately excluded many of the founding members. The group recognized that in order to be relevant for most farmers on the prairies, that the standards must be flexible enough to support transition over time, as Don described, *If we*

can move to things over time maybe we can change our production to make it work. But…there's got to be a long window there for people to adapt to change (Don Guilford, video 3.4).

Despite these aims of inclusivity, the cohesiveness of the group was undermined when these flexible standards became more rigid as diverging visions of 'good food' and 'good farming' were proposed and negotiated. On the one hand, some members (largely the "We-Sellers") were concerned with ensuring that all beef sold through the group was of a certain grade (which indicates quality primarily in terms of texture, color and fat marbling) reflecting standardized industrial quality conventions that dominate the commodity beef market. These farmers recognized that grading systems were developed to provide a consistent eating experience (taste, tenderness), which has conditioned and homogenized the taste preferences of eaters (Stassart & Jamar, 2008). These standards, however, marginalized farmers raising heritage breeds and who grass-finished livestock, as their products did not easily conform to grading standards developed for more conventional breeds and for grain-finished livestock. The "alternative standards" group (largely the "I-Sellers") who was often penalized by lower payments in the commodity market and thus largely rejected the conventional grading system, instead prioritized more stringent measures of humane animal husbandry, of environmental responsibility, and of 'closeness' and connection. They believed that quality was more legitimate and

Video 3.4 - Don Guilford explains the need for adaptive quality standards that allow for transitional farmers. http://www.youtube.com/watch?v=n7_IRsR8FOk

robust if constructed through interpersonal relationships and that the "We-Seller" emphasis on grading marginalized their values.

Interestingly, both "I-Sellers" and "We-Sellers" anticipated that consumers would have negative experiences with the other's products, which by association would reflect poorly on the CFN and on their own operations, forgoing a grading standard was untenable for him, *"I'm not interested in being a part of something like that [forgoing a grading standard], because with one bad carcass like that, they'll tell a hundred people and it takes years to develop these markets." (Don Guilford).*

Both We-Seller and I-Sellers were concerned that adopting the other's quality standards would become too prohibitive and restricting. Clint, an "I Seller", comments,

> *There are abattoirs that are closer than the ones that grade. I don't want to be cornered into a grade standard. I want do my own processing... Trust in people's own products and from customers knowing where their product comes from. By having trust, there isn't a need for [grading]. (Clint Cavers)*

Clint's experience with direct marketing indicated that customers define quality based on knowing their farmer and where their food comes from and that they could tolerate, appreciate or even desire variations in eating experiences among participating farm. Such inconsistencies would however be intolerable for the larger buyers sought out by the "We-Sellers" (e.g. university food services, hospitals etc.) who typically demand standardized products. At one point, the We-Sellers proposed that all animals sold through HMLFI be finished at a central member-owned feedlot to further maximize consistency of product, representing a further homogenization that threatened the individual identity of "I-Sellers" and their products.

The Worm Turns

The most contentious issue related to quality standards was the use of synthetic (chemical) de-wormers, particularly ivermectin, to control intestinal worms and lice in livestock. Those who abstained from using ivermectin felt that it posed unacceptable risks to human health and to the environment while users felt that these risks were negligible. Two ivermectin users in the group agreed to explore abstaining from using any synthetic de-wormers and a ban on ivermectin was written into the group's standards. Eighteen months later, the cattle herd of one "We-Seller" contracted a severe intestinal worm infestation, causing the death of five animals. Upon veterinary recommendation, the farmer administered ivermectin to all his yearlings. Another "We- Seller", anticipating a similar infestation then also treated his entire herd. According to the existing standards, these two farmers were barred from marketing these cattle through the HMLFI, effectively excluding them from the group.

At this point, ivermectin users advocated that the standards be changed to allow for the use of synthetic dewormers. Some viewed the need for the dewormer a scale issue, in that alternative internal parasite management strategies were only viable for small farmers, *"When someone who has 700 head is told that he can't de-lice or control worms, well that's just stupidity. With 700 head you have to do it." (Arvid Dalzel).* They positioned invermectin use as necessary, relatively harmless, and indeed an important tool for avoiding animal suffering. Further, they asserted that not using synthetic dewormers resulted in ragged and hairless livestock and to inefficient feed conversion that reflected poor husbandry practice and even animal cruelty. Yet, those that eschewed ivermectin use believed that the environmental and human-animal health damages of the chemical outweighed any benefits and thus tolerated worm infestations and used alternative, albeit less complete,

parasite management practices (e.g. multi-species grazing, lower stocking densities) and natural dewormers (e.g. garlic) in order to co-exist with the parasites.

At one critical meeting, the group made a decision to make an exception to, rather than to revise, the standards, "whole herd treatment using synthetic de-wormer will be allowed in this one instance with triple the recommended withdrawal period (150 days). No synthetic de-wormers will be allowed at any other time in the future as per the standards." (Meeting minutes, Dec 11, 2008). Although the group had ostensibly reached consensus, this decision did not resonate with the ivermectin users whose recent experience reinforced their belief in the necessity of ivermectin in their management systems.

Fourth Divide: Gender, Technology and Age

Communication technologies created power imbalances when important discussions and decisions were carried out through email, "The decision on these proposals should not be made on-line by e-mail…some of us do not check e-mails regularly and then 3-4 producers could pass something that the rest have no knowledge about!" (Arvid Dalzel). Although the Internet may enhance communication among members in joint initiatives (Knickel, Zerger, Jahn, & Renting, 2008), it can thus also create new inequalities and exclusions based on differential access to, and competency with, new media and electronic communication.

The digital divide was age-related as older farmers were less interested in email and web communication, in part because of a skill-deficit but also because of a belief in the importance of face-to-face meetings. Generational differences in priorities were also implicated in tensions between older members (largely We-Sellers) who were impelled to

reach $1 million in sales within 3-5 years and younger members (largely I-Sellers) who advocated for, and who could accommodate, a slower approach.

The members who were most firmly polarized and who identified most strongly with either the "I-Sellers" or "We-Sellers" groups tended to be men. As the discussions became more fractious, many women who had been involved at the onset began dropping out. Indeed, the ratio of men to women in the group went from 15:9 at the initial meetings to 14:3 at the peak of the conflict. The gradual departure of these women, who tended to provide more moderate voices and who had a tempering influence on interactions, only seemed to exacerbate the conflict. Pam Cavers commented,

> *I dropped out because of the same reasons as lots of the other women… as soon as all that conflict comes in, the first thing you're going to do as a woman is to make sure you're preserving what's important. That's definitely a gender thing…Men are more likely to be headstrong and try to get it fixed and, you know, more linear….*

Pam thus suggested that the women in the group were more holistic in their approach, seeking to shield valued relationships from the destructive competitive dynamic that was emerging in the group. Unfortunately, this led to most of the women stepping back and deferring to their male partner as their family representative at meetings. The growing imbalance acted to further marginalize any women who remained involved. Thus it was Sandy DeRuyck who had initially suggested the possibility of a hybrid model, but it was only recognized as relevant when one of the more influential men later rearticulated the concept. It is important to recognize that this gender analysis was contentious and, upon reviewing this paper, that some male members rejected the notion that gender had any bearing on the conflict: stating that at least some women in the group had been equally adversarial and that some of the men had also stopped attending meetings to avoid conflict.

3.3.3 Phase III: Group Dissolution

By early 2010, most of the "We-Sellers" had resigned from the HMLFI, realizing that the ongoing stalemate was unlikely to be resolved and that the quality standards precluded their participation,

> *The standards would do more to exclude than include farmers. I don't know if this is good for either group. If someone doesn't go with the flow they are out. I've heard this said, "He was never really a believer." I would still like to know believe in what? It is getting to be a pretty small box. (Andrew Grift)*

Another left the group questioning the relevance of the "I-Sell" model for rural development in the province,

> *As an average size Manitoba farm, we see the problems that our industrial agriculture model brings and willingly seek to develop more ethical markets for our produce while caring sustainably for the land. Farms of this size form the backbone of the local community and must be included if true change is to occur (Don McIntyre).*

3.3.4 Phase IV: New Beginnings

After the dissolution of the original HMLFI, the group split into two. The "I-Sellers" ceased any collective marketing, but continued to meet under the auspices of the HMLFI, retaining the group's function as a support network and coordinating youth training and public education programs. Approximately six months later, the HMLFI re-engaged in collective marketing, this time focusing on an "I-Sell" approach that operated through a network of local food buying clubs. Moving beyond a singular focus on beef products, customers were able to choose from a wide diversity of local food products. Orders from each farm are combined and delivered monthly by each farm family on an alternating basis to seven central drop-off points in Winnipeg, one in Brandon and three

in rural Manitoba. Importantly for the "I-Sellers", this model allowed farmers to retain their individual identities and gave farmers almost complete autonomy in terms of product specialization, production practices, and pricing.

A smaller subset of the "We-Sell" farmers formed a separate corporation called "Prairie Sky" that focused on a pooled approach targeting restaurants and other institutional food buyers. Restaurant managers and institutional food buyers preferred and even demanded that meat products be processed in a processing facility inspected by federal food safety regulators. However, there is only one federally inspected slaughterhouse in Manitoba, which made access difficult. The large buyers that Prairie Sky worked with also proved to be unreliable, *"there were a ton of meetings with some really big numbers and pie in the sky kind of thing that ultimately amounted to nothing." (Wayne McDonald).* Prairie Sky also encountered scale issues, where their pooled cattle represented a substantial supply of animals yet was still insufficient to meet the needs of most restaurants, *"100lbs of beef tenderloin every two weeks. XL beef can do that but we can't." (Wayne McDonald).*

3.4 Discussion

The Harvest Moon Local Food Initiative (HMLFI) was a civic food network (CFN) initiated by a group of 14 farm families in the Canadian Prairies. CFNs are generally theorized as highly socially embedded, both in terms of the close and cooperative relations amongst participants, but also in terms of holistic development agendas that balance economic pursuits against social, political and cultural ones (Renting et al., 2012). Our findings emphasize the need to account for power, dis-

embeddedness and conflict in CFNs as a balance against the dominant focus on social embeddedness and consensus in the existing literature. The civic governance mechanisms that define CFNs, such as participation and cooperation, are arguably as, or perhaps even more, likely to engender tension and conflict as the individualistic, hierarchical and alienating relations of the conventional food system or of alternative food networks dominated by market governance mechanisms. Although food democracy is fundamental to CFNs, it is also a messy and often-uncomfortable process (DuPuis & Goodman, 2005; Hassanein, 2003).

We found that the ambiguous nature of "local food" as a mobilizing concept fostered a heterogeneous membership in terms of product type, production practices, and marketing as well as underlying values and philosophies. The heterogeneity and inclusivity of the initiative was initially celebrated internally and by observers as an organizational strength and for its potential role in large-scale transformative rural development. This hopeful and perhaps naive view of the process and politics of building CFNs led to an imagined space of consensus. Indeed, the focus on commonality in the 'honeymoon phase' sidetracked any opportunity to unpack the different needs and values that informed member's often-colliding understanding and practice of local food.

Farmers are often ideologically and materially "locked in" to the conventional food system, which can undermine engagement in new innovative forms of diversification such as CFNs (Marsden & Smith, 2005; Stassart & Jamar, 2008). This was indeed reflected in our case, particularly where farmers accustomed to commodity agriculture advocated for quality standards that reflected industrial agriculture conventions (e.g. grading, standardization, corporate branding, use of chemical dewormers). At the same time, the "I sellers" were locked into individualistic business models where these direct

marketers were amenable to cooperation, but resisted any collective intervention that undermined their individual autonomy and farm identity. This reflects the importance of farm identity as a brand in direct marketing, the individualistic nature of local food entrepreneurialism and also the belief by many local food advocates that the direct connection between farmers and eaters is fundamental to the legitimacy of local food (Mount, 2011; Wittman et al., 2012). While Chiffoleau (2009) suggests that local food promotes greater ties among farmers, this may only apply in the context of informal networking or less involved forms of cooperation where interdependence is minimal, or at early stages of organizational development. Interestingly, it was the mid-scale farmers in our case, who would normally be considered to be less 'alternative' in terms of their otherwise greater engagement with productivist agriculture, who advocated for a more interdependent approach that is more congruent with the ideals of CFNs.

Some farmers viewed the CFN predominantly as a business entity and acted to externalize discussions and actions that weren't directly related to the marketing initiative. Paradoxically, outside of the context of the HMLFI, most of these business-focused farmers were active educators, leaders in sustainable agriculture and committed volunteers in their community. Other HMLFI members prioritized the non-economic organizational pursuits related to training young farmers, to educating the urban public on the importance of sustainable agriculture and alternative food systems, and in providing support for the development of similar projects in other regions. Those who valued these extra-economic motivations better tolerated the sub-optimal economic performance and incremental growth of the HMLFI. These members were also frustrated when more business-oriented members allocated less time and attention to the group's extra-economic pursuits.

Regardless of their business priorities, all the members valued the peer support network gained through the HMLFI, which was viewed as particularly important in regions dominated by industrial agriculture where rural communities, agriculture institutions and universities are often dismissive or even hostile towards alternative agricultural knowledge, production and marketing approaches. All participants indicated that they felt validated through the relationships with other farmers in the group, irrespective of any market benefit they derived from participation. These mutually reinforcing relationships were an important incentive for continued participation, especially in light of the sub-optimal economic performance of the CFN. For many members, this social support reduced feelings of isolation, increased self-worth, and, in many cases, empowered members to continue pursuing their own alternative farm development pathways while assisting others to do the same. These exchanges of *"shared and enjoyed knowledge"* reflect what has been referred to as the exchange of 'regard' in the context of farmer-consumer relations in local food networks (Sage, 2003). These social and affective exchanges occur in tandem with economic exchange (Lee, 2000) where interpersonal acknowledgement of trust and expertise is a powerful reward in its own right.

The exchange of regard however was highly uneven and largely confined to each of the emergent factions within the group. Interactions between these sub-groups might be better characterized as the exchange of dis/anti-regard where the expertise, professional knowledge and the integrity of members were often openly criticized. They reflected the diverging interpretations and negotiations amongst members around what represented good food and good farming. Such negative knowledge exchanges

undermine trust and is a disincentive for participation, in the case of HMLFI, prompted some, and especially female, members to withdraw from the initiative.

We found that as group meetings and interactions became more acrimonious, women that had initially played important roles as organizers began to drop out, leading to a highly male-gendered organizational dynamic. It is now widely suggested that, compared to the male dominated spaces that pervade conventional agriculture, women are better represented in the sustainable agriculture industry and often occupy leadership positions in alternative food and agriculture organizations (DeLind & Ferguson, 1999; Jarosz, 2011; McMahon; Amy Trauger, Sachs, Barbercheck, Brasier, & Kiernan, 2009). However, as much as CFNs might represent feminized organizational forms that are "resistant to a hegemonic masculinity (i.e., individual, corporate, competitive ethic)" (Harter, 2004) this does not preclude the emergence of a strongly male-gendered space, which indeed occurred in the HMLFI and which enabled the intensification of conflict within the group. Many of the women felt that remaining within the HMLFI as active participants would undermine valued and sometimes longstanding relationships, ones that they did not wish to jeopardize. Women have been found to play an important role in generating and maintaining social capital within rural communities (Healy, Haynes, & Hampshire, 2007) - a role that ran at odds with the social dynamics that were emerging in the group.

Although the original form of the HMLFI was ultimately dissolved, a diversity of innovations emerged as participants responded to the opportunities and challenges that the HMLFI itself generated. Members of HMLFI were forced to reflect in new ways about their farms and values, stimulating individual and collective innovation – whether this included new cooperative ventures, new farm management practices, identifying new

education and mentorship opportunities and the eventual reincarnation of the HMLFI in its modified form. Based on the relative success of the latest iteration of HMLFI, numerous groups in Manitoba and beyond have interacted with HMLFI members to explore developing their own CFNs (Laforge & Avent, 2013).

While such grassroots experiments may at first glance seemingly 'fail', the excitement and the learning that results from these initiatives is often re-directed into re-imagined individual and collective innovations that constitute a broader process of socio-economic change. Evaluating the *cumulative impacts* of these projects by looking beyond the analytic, spatial and temporal boundaries of any given organization may provide important insights into their evolution and wider rural development implications and how they fit into a longer narrative of grassroots innovation.

In retrospect, participants unanimously agreed that the group should have confronted their differences from the on-set. As the group was splitting up one farmer commented, *"separate we might be able to do this but together we'll never survive. It was a marriage that was doomed to failure" (Clint Cavers).* To effectively work across difference, there may be a need for a preliminary interactive space to foster mutual understanding and trust and to identify common values and goals, but as importantly to explicitly discuss intergroup difference, before more interdependent economic enterprises are pursued. Working together on smaller and more readily achievable projects might have provided an opportunity to bridge many differences and to build the social capital required to sustain a more involved collaboration (Glowacki-Dudka et al., 2012). Such a space could have supported the development of more organic formation of enterprise(s), which in our case would likely have led to the formation of two separate groups at the outset, rather than one. Once established, these two groups, having met their own needs, might have then

explored the hybrid model or other modes of collaboration as a way of better harnessing their complementary interests and strengths.

3.5 Conclusions

The progression of agri-industrialism has led to the consolidation of corporate power, the declining sustainability of family farming and has in turn compromised the resiliency of rural communities (Anderson and McLachlan, 2012; Wilson, 2010). Civic Food Networks, with their emphasis on participation, democratic governance and local control offer an alternative pathway for farmers and rural communities to meet these challenges through a place-contingent, cooperative approach to agrarian community development. They challenge the individualistic and competitive logics that have disconnected and divided farmers and rural communities. These CFNs hold the potential to play a role in scaling up local food, in cultivating a cooperative ethos and in delivering a wide range of economic and social benefits.

At the onset of this study we were steeped in the excitement of the emerging organization and in a literature on alternative food networks that celebrated social embeddedness and consensus. We did not anticipate the conflict that would later emerge and ultimately compromise the action research project. Arguably, it was our long-term involvement as researcher-participants that allowed us to document *and experience* group negotiations and tensions that may be less accessible using less involved (i.e. more extractive) social research approaches where research 'informants' reflect retroactively on their experiences. Long-term, community-engaged and participatory action research approaches are ideally suited to understanding these underlying processes and tensions.

Our case study suggests that the widespread focus on civic harmony and inclusion in CFNs can obscure the capacity to make sense of and effectively contend with the inevitable power struggles and conflict that permeate these alternatives. Mount (2011) suggests that local food projects are defined, *"not so much by their shared goals and values, as by the processes through which goals and values come to be shared"* (Mount, 2011). In our case study, this process ultimately excluded dissenting voices, rather than negotiating a shared and mutually supportive space. From a purely economic rationale, this minimizing of difference amongst participants can allow for more efficient and expedient business development. However, a more holistic and longer-term vision of CFNs requires that participants confront and reconcile their differences to enable a wider diversity of economic, social and environmental outcomes.

Failing to confront these differences in CFNs will only perpetuate the fragmentation of rural communities and foster individualistic approaches that limit the capacity for collective problem solving. By reimagining the challenges of diversity as an opportunity for grassroots innovation we can shift our praxis towards a politics of the possible (Harris, 2009). This will encourage CFNs to focus on strategies that build bridges to harness the diversity of resources, skills and ideas brought together by the diverse participants attracted to CFNs. We should envision both 'successful' and 'unsuccessful' CFNs projects as imperfect works-in-progress, and, ultimately, as embedded within a long-term agenda to build more resilient, and civic, food networks. It is only by embracing strength in our diversity that the full potential of these networks will be realized.

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4 Cycle 3 - The Real Manitoba Food Fight

Sections of this chapter are published at:

4.1 Anderson, C. R. (2013). Is this really "Normal Procedure"? [Letter to the editor], *Printed in 8* community newspapers in rural Manitoba. Full version published on-line at: http://realmanitobafoodfight.ca/2013/09/07/really-normal-procedure/.

4.2 Anderson, C. R. (2013, September 26, 2013). Manitoba's local food policy must improve, Op ed, Western Producer (Alternative versions printed in the Manitoba Cooperator, The Winnipeg Free Press and numerous community newspapers across rural Manitoba). Retrieved from http://www.producer.com/2013/09/manitobas-local-food-policy-must-improve/

4.3 Anderson, C. R., Venture, J., & Vanderhart, J. (2013). The Real Manitoba Food Fight. Video available on-line at: http://www.youtube.com/watch?v=H1F6sCPMlm8

4.4 Anderson, C. R. (2013, October 10, 2013). Experts and the food safety trump card [Letter to the editor], Manitoba Cooperator (Full version published on-line at: http://realmanitobafoodfight.ca/2013/10/07/experts-food-safety-trump-card/).

4.5 Anderson, C. R. (2013, October 17, 2013). Food fights and beating up straw men, Manitoba Cooperator (Full version published on-line at: http://realmanitobafoodfight.ca/2013/10/18/food-fights-beating-straw-men/).

***Abstract*:** This chapter includes a selection of five short articles and an on-line video created as a part of a political campaign to pressure the Manitoba government to address policies and regulations to better support small-scale farmers and food processors in the Province. This cycle of inquiry emerged from a food inspection and seizure on the farm of Harvest Moon Local Food Initiative founding farmer members and collaborators in this PAR project, Pam and Clint Cavers. Based on footage of this raid, we created a video and launched a website and political campaign called the Real Manitoba Food Fight. Our goal was to support the Cavers, but more broadly to challenge the food safety regulatory regime on the grounds that it benefits industrial agri-food systems and consequently marginalizes the development of direct farm marketing, local food and civic food networks. The objective of this cycle of inquiry was to raise public interest and awareness in food safety regulations to pressure government to make changes to better support family farmers. The articles draw from findings from the last six years of research, from the academic literature and from our emerging analysis of the state of food safety regulations in the Province of Manitoba. Our writing in the popular media was circulated to over 184,854 readers/viewers. In response to the pressure excerpted through the Real Manitoba Food Fight, MAFRI agreed to participate in a meeting to discuss the relationships between food safety regulations and local food. This meeting took place on October 18, 2013 and was an important first step towards establishing a working relationship between MAFRI and the local artisanal small-scale food community. In the next chapter, I make a case for creating space for this type of writing in a participatory action research dissertation.

4.1 INTRODUCTION: PUBLIC SCHOLARSHIP

Katherine Mitchel argued that one of the shortcomings of the political left is the quality and accessibility of critical academic writing, which she claims is often characterized by, "dense, turgid and usually mind-numbingly boring prose" (Mitchell, 2006). The immediate relevancy of critical scholarship to social movements is further undermined by the privileging of publication venues, such as academic journals, that are typically inaccessible to the general public and have little impact beyond the ivory tower. Publishing in plain-language and in non-academic publications is only marginally rewarded, if at all, in academic productivity evaluation, despite the potential role that academics have in enabling and contributing to public debate and to tangible processes of social change. Academic writing and publication culture represents a substantial barrier to public interest scholarship and undermines our ability to further the social movements that we struggle to understand and promote.

Recently, there has been a renewed emphasis on the importance of public sociology, public geography and, more generally, public scholarship where academics engage with multiple publics to support the development of a vibrant civil society (Burawoy, 2005; Fuller & Askins, 2007, 2010; Gabriel, Harding, Hodgkinson, Kelly, & Khan, 2009; Hawkins et al., 2011). This dissertation research is rooted in what referred to as "organic" public scholarship which involves engaging, "in close connection with a visible, thick, active, local and often counter-public" (Burawoy, 2005) through

teaching (Freire, 1970), research (Pain, 2003) and in everyday life (Cloke, 2004). In more conventional research approaches, academic researchers interface with communities through detached, hierarchical and extractive relationships that often produce few immediate or tangible for research subjects (Cameron & Gibson, 2004). In contrast, public scholarship is oriented towards more democratic and engaged research that produces knowledge and action that is immediately useful to research participants (Pain, 2004;Kindon, 2005). As such, public scholars are obliged to mobilize knowledge both in the local context and beyond in both academic and non-academic venues by engaging in a range of communication strategies, for example through op eds, video, radio, social media or the print media (Mitchell, 2006; Moseley and Teske, 2011; Burawoy, 2005).

The purpose of this chapter is to highlight alternative knowledge mobilization strategies, namely publishing in the popular and social media, as an important outcome of public scholarship. This chapter valorizes the diversity of publications that resulted from my own dissertation, including one video and five articles targeted at a general audience that were politically inflected, yet informed by academic research. These forms of writing and publication are not typically included in a doctoral dissertation, however are showcased here as a demonstration of the importance of alternative publication strategies in the practice of public scholarship. These publications were widely distributed and had immediate tangible benefit for the community partners and, as an exercise in public scholarship, arguably rival the importance of the publications targeted at academic audiences. Further, the process of writing, discussing and publishing these articles were fundamental to my development as a scholar-activist and formed the basis for multiple conventional scholarly outcomes (journal articles).

4.2 Purpose and Timeline of Campaign and Related Articles

This chapter reports on the third cycle of PAR inquiry through a selection of five short articles and an on-line video created as a part of a political campaign to pressure the Manitoba government to address policies and regulations to better support small-scale farmers and food processors in the Province. This cycle of inquiry emerged from a government food inspection and seizure on the farm of HMLFI founding farmer members, Pam and Clint Cavers. The incident was highly contested by civil society organizations and activists in the province and, for many, was a sensational example of a much deeper issue – the challenges that industrial-oriented food safety regulations pose for the development of sustainable local food systems. In response to the incident at the Cavers Farms, our action research team organized a political campaign called the Real Manitoba Food Fight. This campaign challenged the existing food safety regulatory regime in Manitoba on the grounds that it benefits industrial agri-food systems, and consequently marginalizes alternatives (community, sustainable, small, fair, organic, just).

The Real Manitoba Food Fight was launched on August 31, 2013, with the publication of an interactive website *www.realmanitobafoodfight.ca*. In order to create public awareness of the issue and to pressure government to address their food safety policy, we strategically engaged in a public relations campaign. Between September 6 and October 18, 2013 we published seven articles in the popular print media and also in on-line forms, five of which are included in this chapter (figure 4.1). The print based versions of these pieces were circulated to 184,854 readers/viewers[4]. In response to the Real Manitoba

[4] Most of the print versions of these contributions were also posted by the publishers in a web version, thus further extending the reach of these outcomes.

Food Fight, Manitoba Agriculture, Food and Rural Initiatives (MAFRI) agreed to participate in a meeting to discuss the relationships between food safety regulations and local food. This meeting took place on October 18, 2013 and was an important first step towards establishing a working relationship between MAFRI and the local, artisanal, small-scale food community. At the meeting, MAFRI committed to continue working with our emerging coalition to develop policy and programs that better meet the needs of small-scale farmers and processors.

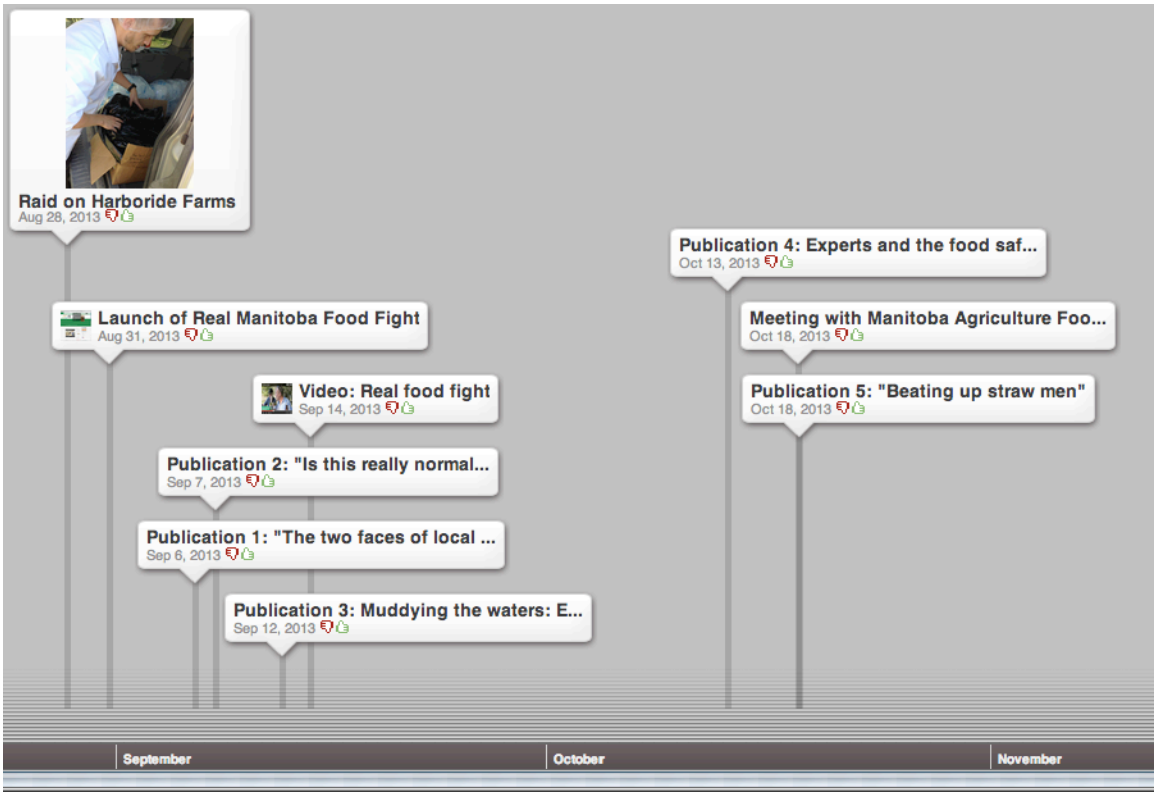

Figure 4.1 – Timeline of the Real Manitoba Food Fight and associated publications.

4.3 LETTER TO THE EDITOR: IS THIS REALLY "NORMAL PROCEDURE"?

(This article was first published on September 7, 2013 at www.realmanitobafoodfight.ca (1,847 unique views. Average time on page 7m41s) and in 8 Community Newspapers in Manitoba.)

I was the instructor of the UofM students who were at Clint and Pam Cavers farm near Pilot Mound, MB when MAFRI inspectors came to "seize and destroy" their stock of cured meat last week.

When we pulled out our cameras, the inspector became agitated and aggressively asked for our names, phone numbers and copies of our I.D. informing us that we might have to go to court. He then demanded that we delete any photos we took.

When asked to comment, MAFRI representative Glen Duizer is quoted in the Winnipeg Free Press as saying that it is customary to request the names of any individuals present during an investigation. This comment from MAFRI was formulated before MAFRI knew that some of the footage was not deleted, despite the inspector actually checking the cameras to ensure there were no pictures.

Mr Duizer's words seem intended to normalize how MAFRI treated the Cavers and how they treated the students/instructor. The RCMP officer who was called to the scene by MAFRI actually told the inspector to, "take it down a notch" and that the inspector needed to be more respectful because the Cavers livelihood was at stake.

If this is normal procedure, I think we all need to come together to re-examine just what normal is.

Now, Pam and Clint's dried cured meat is scheduled to be destroyed by MAFRI on Tuesday Sep 10. This is not only $8,000 of product, but represents three years of research and development into a product they've poured their hearts into developing and will be lost to them in 3 days time.

Why on earth would they destroy the meat now? It has never actually been tested/proven to be unfit for human consumption.

It also appears, from what MAFRI is sharing with us and the public on this incident, that the problem isn't that Clint and Pam didn't follow a regulation, but rather that there aren't any firm regulations (only unevenly interpreted guidelines) for these products.

Clint and Pam were given the green light to sell their products earlier this year. Then a new inspector comes in, reinterprets the guidelines, telling them to stop selling their products.

MAFRI alleges, based on a piece of yet-to-be revealed "non-physical evidence" that Clint and Pam sold their meat after they were told to stop. Clint and Pam deny this. Clearly we need more information before we can figure this situation out.

Why can't MAFRI hold off on destroying any meat until this is better sorted out? Where is the due process? The government hasn't even clarified/proven exactly what the Cavers did to provoke their raid? We all need to be accountable for our actions – including MAFRI.

Sign the petition on this website ASAP to encourage get MAFRI to hold off on destroying the meat and to engage in I think what most Manitobans would consider to be proper procedure – a genuine conversation with the Cavers family, an honest sharing of

information about the details surrounding this incident and an attempt to move forward in a positive and productive way.

http://realmanitobafoodfight.ca/petition/

4.4 Two Faces of Government Policy Towards Local Food

(This article was first published on September 6, 2013 in the Winnipeg Free Press (108,151 average for Friday paper) and subsequently in the Western Producer (44,523 qualified circulation), the Manitoba Cooperator (11,500 subscribers), the Canadian Centre for Policy Alternatives Fast Facts (~1800 on distribution list) and in 11 Community Newspapers in Manitoba)

Small farm owners Pam and Clint Cavers were blindsided on August 28, 2013 when Manitoba Agriculture, Food and Rural Initiatives (MAFRI) staff showed up to "seize and destroy" their locally produced and cured prosciutto (pork).

Ironically, just months ago, MAFRI presented the Cavers with $10,000, naming their prosciutto the "Best New Food Product" in the Great Manitoba Food Fight competition.

Pam Cavers neatly summed up the Province's approach to supporting local food, "With one hand they giveth and the other they taketh away."

It's not hard to see why family farmers feel that policy towards local food is two faced. Unfortunately, as dramatic the Cavers story is, it is not an isolated incident. It reflects a much deeper problem – the marriage of government to industrial agriculture to the detriment of family farmers.

In my doctoral research, I interviewed farm families who sell meat directly to consumers in Western Canada and the USA. Most farmers wanted to expand and innovate but were frustrated and stymied by the many barriers they face.

Most often, farmers cited the cost and accessibility of processing facilities. Some farmers had considered establishing their own facilities. But the regulations are geared towards large industrial plants, creating huge costs for smaller processors.

For example the Cavers were told they needed separate facilities to handle all aspects of their cured meats, which would mean extensive renovations, and the addition of buildings and expensive equipment. They argued that these costs were unreasonable considering their scale. The total value of their stock, developed and aged over three years, was $8,000. Just one piece of equipment they were being asked to buy would have cost them $8,000.

Everyone agrees that food safety regulations are important. However, smaller farmers and processors want regulations to consider the relative risk of different size operations - "scale-appropriate regulations."

Risk management is based on the formula: Risk = (Probability of Occurrence) multiplied by the (Impact of Occurrence). The most obvious argument for different regulations for smaller operations is that the potential impact of an outbreak from mega-processors is much greater. Look no further than the Maple Leaf Listeria outbreak in 2008 and XL Beef e-coli outbreak in 2012 for evidence.

In the XL beef incident, at least 18 fell ill, thousands of pounds of meat wasted and it took months to determine where the tainted food had been sold. This cost $16 to $27 million and damaged public confidence in Canadian meat.

Is the Manitoba government serious about local food? Many farmers say that, while front line MAFRI staff people are helpful, they are woefully underfunded.

When it comes to photo ops, the government program money is there. Just look at the MAFRI Buy Manitoba program. Framed as opportunity to help farmers develop

local markets. Yet it has primarily helped large grocery chains to label products that were manufactured in Manitoba.

Sure, some legitimately Manitoban companies were supported. But, we also see Coke-a-Cola labeled with a Buy Manitoba logo. Once again, a program was coopted by big industry yet most family farmers, like the Cavers, receive almost no benefit.

Then there is MAFRI's Open Farm Day. Farmers host consumers to promote their products and educate the public about farming. Again, a great photo op for the Minister. However, former Open Farm Day participant, Dwayne Logan, aptly criticized that the program gives the public an unrealistic view of agriculture as idyllic.

Thus, MAFRI holds up small family farms as the face of agriculture. Yet provides minimal financial support and even undermines small farmers with one-size fits all regulation.

Incidents like the one at Harborside farms are driving farmers underground, making it difficult for consumers to find authentic local food. If we are serious about local food, we must demand that government create more appropriate programs and regulations.

We can look elsewhere to see that there are ample but unrealized opportunities for our government to nurture the local food economy. Three years ago, farmers and consumers united to successfully lobby for scale-appropriate regulation that is now enabling local food in the state of Oregon. Readers may be interested in learning about the grassroots efforts of the Friends of Family Farmers in Oregon to learn about their efforts to change legislation to support family farms. Check out their website here or click here to watch ashort video about this process. Their efforts are a testament to the power when consumers rally to support family farmers.

We need to move beyond the photo ops here in Manitoba and government must listen to what farmers need and what the public wants in order to provide good, clean healthy food to Manitobans.

Indeed, this is why we have established "The Real Manitoba Food" fight campaign, which has brought citizens together first to petition the government to work with farmers and consumers to create programs, procedures and policies that better support the development of local food systems in the Province. Visit www.realmanitobafoodfight.ca to learn more about the campaign and the issues.

4.5 REAL FOOD FIGHT VIDEO

(This video was first screened at the Harvest Moon Festival (~1,000 viewers) and subsequently published on YoutTube (1,262 views)).

See video at: http://www.youtube.com/watch?v=H1F6sCPMlm8

4.6 Blog Post. Muddying the Waters. Experts, Citizens and Food Sovereignty. A Commentary/Analysis

(This article was published first on September 12, 2013 at www.realmanitobafoodfight.ca (293 views. Average time on page 4m06s)).

Yesterday, I listened with some friends to Rick Holley, a food scientist from the University of Manitoba who commented on the disputed raid on Harborside Farms.

I first wanted to thank Marilyn Maki and CBC Radio Noon for bringing Rick onto the show. They posted the audio online. It is very important to draw on multiple voices/perspectives, so that we can all form our own opinions and make informed decisions for ourselves.

I wanted to spend a moment sharing my reflections on Holley's interview, on the role of 'experts' and to draw attention to a concept that I think is useful for us to ponder in light of this incident.

First, the interview…

One thing that struck me was how Holley sensationalized the risk of Pam and Clint's meat. Of course, there are always risks when it comes to processed meat, or food in general, that we need to be careful about and to regulate for.

When asked by the interviewer about what could happen if you ate meat with those toxins, Holley replied,

"oh, you'd be dead, in three days."

No further discussion.

First, I'm not an expert on food-born illness, but from what I know and what I can tell that his statement is overstated and in most cases wrong. For example, according the US Center for Disease Control and Prevention (CDC), most people who eat listeria are never even symptomatic (http://www.cdc.gov/listeria/).

Botulism, which Holley focuses on, is a more serious toxin, but is treatable and rarely fatal unless it is not caught early enough. It is actually very rare as a food-born illness and often a result of improper home canning. In Canada, there are about an average of 2 cases per year (http://www.phac-aspc.gc.ca/fs-sa/fs-fi/botulism-eng.php)

So, yes, you can possibly die from eating these bacteria and/or toxins but I am confident that Holley has misrepresented and sensationalized the risk. He was implicitly suggesting Clint and Pam's meat was very dangerous, even deadly, by saying their meat should be destroyed even though it has never been proven to have any of those toxins/bacteria and no one has ever gotten sick from eating it.

On an ironic note, Clint and Pam told me that Holley was at their farm earlier this year to learn about what they were doing and ate their dried cured meat.

Next, after talking to Clint and Pam after the interview, they were frustrated by Holley's misrepresentation of the cost for setting up a separate drying facility for their cured meats testing equipment etc.

Clint told me that just one drying cabinet, about the size of a fridge, enough to cure about 2 pigs, will cost about $15,000 – again, that's just for one drying cabinet let alone all of the other testing equipment, renovation expenses, etc.

Holley implied that it would cost Clint and Pam about $10,000, but not much more. His understatement of the costs might have many listeners questioning why the Cavers didn't make what sounds like a reasonable investment in a $10,000 upgrade.

But, according to Clint, the costs would be much higher. Not to mention they were indeed starting to make plans to upgrade, trying to work with the province to figure all of this out – but aiming at a moving target where food safety guidelines are being unevenly interpreted over time and by different inspectors.

Finally, Holley stated that one of the fundamental problems with Clint and Pam's situation was that,

"In this case, there's not a good division between the farm field and the processing facility, as there should be, in order to minimize the opportunity for those organisms to find their way into the meat."

I asked Pam and she said that this has never been an issue, and MAFRI/health inspectors have never mentioned this as a problem at Harborside Farms. Holley suggests that the on-farm processing is rare and the Cavers are exceptional in this regard.

Having food processing on a farm is not uncommon. I've spent time on many farms that do on-farm processing both in Manitoba and elsewhere (Oregon, B.C., Alberta, Saskatchewan, etc.).

These farmer-processors (including Clint and Pam) had a hygienic protocol, following best practices – changing shoes, washing hands and changing clothes when moving from farming to processing to avoid cross-contamination and, like the Cavers, are monitored and licensed by the public health authorities in their jurisdictions to have processing on farm.

Further, the division between the space of the farm and the space of an off-farm processing plant isn't as cut and dry as Holley implies. It doesn't matter where you process meat there are always live animals up to the point where they die, which is usually in the same plant where they are gutted and hung.

I've been in abattoirs in rural towns where I witnessed live pigs in the processing facility – their hooves still carrying the manure and the dirt from the farm. Manure, dirt, animals and meat in the same space.

In large processing facilities, where they do both slaughter and packaging, there are often holding pens right outside the doors.

The farm here (in Holley's usage includes the soil and the pathogens that naturally occur on farms and in the soil) doesn't end at the farm gate but comes into all processing plants and indeed our homes and on our dinner plates, despite the efforts to keep these separate.

Indeed, studies have shown, that despite all efforts on farm and in processing facilities, that much of our meat has some level of pathogens, including for example, listerosis and salmonella (For example see: Cook et al. 2012).

Considering all of this – to suggest that the problem is that the separation between Cavers farm and processing plant is the problem seems unfair, misdirected and unduly sullies the Caver's reputation.

In fact, I have heard many people expressing frustration that the expert and the government responses to this incident are "muddying the waters" and obstructing a fair and respectful discussion.

Experts, Citizens and Food Sovereignty…

I'm always excited to see informed citizens and experts commenting publically on important issues, like this one. But, my hope is that this brief analysis gives us all a moment to pause and reflect. And poses a challenge to each of us to question all 'expert opinions', to get information from multiple sources and to conduct our own thoughtful

analysis of the situation before coming to any conclusions - or perhaps we should never conclude, but always keep debating and challenging our own conclusions.

This of course also means critically looking at who the message is coming from, why they are considered "experts" while others are not , their worldview, what their vested interest is?

This goes for my writing and opinions too – don't take them at face value.

I wear my position and interests on my sleeve though – my interest is in seeing the development of a food system that is safe, no doubt – I have children, family and value our health and yours too.

But I also think we need to step back from the micro-scope to consider the bigger issues, and to question the claims being made by those in the food safety regime (government, food scientists, etc. – "THE Experts"). What are they missing with their narrow and compartmentalized vision?

I want a more holistic consideration of health, safety, economy, connection, equality to inform our regulations and policy.

I want more control over decision-making handed back to family farmers, fishers and people who eat the food.

I don't want to be one of a few "experts" called on to make the decisions for everyone else. Rather, I want us to find ways for citizens to have more of a say in the way our food system works so that it better reflects our needs and values rather than those of powerful corporations, experts and government agendas.

I want to end this commentary by linking this discussion and our efforts to a wider Canadian and international movement based around the notion of food sovereignty.

Food sovereignty emphasizes putting control of agriculture and food back into the hands of producers and eaters, not corporations and governments (http://nyeleni.org/spip.php?article290).

Thus, food sovereignty calls for the rights of farmers, fishers, and consumer-citizens to determine food and agricultural policy and practice (Nyéléni Declaration, 2007).

My hope in Manitoba, is for the Real Manitoba Food Fight to result in the empowerment of farmers and eaters to re-shape our food system to reflect the vision of the people who grow and eat food in Manitoba.

Colin Anderson

Note: If you are interested in learning more about food sovereignty in Canada there is a wonderful edited book here to check out. Food Secure Canada is an organization that is rooted in a food sovereignty approach. And La Via Campesina is an international peasant farmer organization made up of more than 150 organizations in 69 countries.

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4.7 LETTER TO THE EDITOR: EXPERTS AND THE FOOD SAFETY TRUMP CARD

(This article was first published on October 2, 2013 in the Manitoba cooperator (11,500 subscribers) and subsequently at: www.realmanitobafoodfight.ca (135 unique views. Average time on page 2m45s)).

I am troubled by how Manitoba Agriculture Food and Rural Initiatives staff and food safety experts are using food safety as a trump card to shut down an important conversation about how we can both protect the public and also support small, independent farmers and food processors.

The response, from MAFRI and food safety experts, to protests over the recent MAFRI raid on Harborside Farms at Pilot Mound sensationalizes the risk of botulism, listeria and other illnesses associated with these types of operations.

Almost all meat contains some listeria yet most who eat listeria are never symptomatic. Botulism is more dangerous, but is treatable and rarely fatal. The Centre for Disease Control in Atlanta claims only three to five per cent of cases are fatal. In Canada, there are an average of two cases per year, mostly from improper home canning.

So, yes, you could die from eating these bacteria and/or toxins but I wonder, how much care goes into artisanal products compared to the XL Beef plant that slaughtered 4,000 head a day.

Are invested small business owners (who you know personally) less or more likely to care about food safety than the employee on a slaughterhouse (dis)assembly line?

If we compared food-borne illness caused by eating industrial processed food versus foods grown and prepared by neighbours and small-scale artisanal growers, what would we find? The research doesn't exist. Perhaps it should.

Food safety regulations are fundamentally important but food safety is being very narrowly framed. We need to question the claims being made by MAFRI and food scientists. THE Experts?

We need to step back from the microscope to allow for a more holistic consideration of safety along with health, economy, environment, connection, equality.

4.8 Op Ed: Food Fights and Beating up Straw Men

This article was first published on October 18, 2014 at www.realmanitobafoodfight.ca 207 unique visitors; Average time on page 4m49s

Local versus global. Technology versus tradition. Urban versus rural.

How many times have you seen these kinds of oversimplified divisions in debates over the future of food and farming? I would argue, 'too many.'

In an editorial on October 3, Cam Dahl claimed that "misguided cityfolk" promoting local, organic and natural food are wanting, "food produced like it was 1930" forcing farmers into living conditions with, "no running water, wood heat, a standard of living below poverty, one-room school education, even longer work hours, etc."

In all of my days, I have never heard anyone suggest this. Have you?

Cam's editorial uses a straw-man argument where one "side" is constructed, misrepresented, and then vilified.

I see two straw-men who unfortunately are loudly distorting the debate on food and farming: The Dumb Industrial Farmer and the Ill-informed Unreasonable Consumer.

I have spent the better part of this decade undertaking research where I have discussed these issues with hundreds of research participants. With small and large

farmers; with cooks, butchers and chefs; with men and women, young and old, urban and rural.

I have yet to meet one of these straw-men or straw-women. I have learned that most of us are thoughtful, analytic and open to discussion. And that we all care deeply about food, health and community.

I don't mean to pick on Cam. Yet, his editorial had me imagining standing across the boxing from him. However, despite our obvious differences, we likely have many common values.

Such mudslinging is hardly productive as it creates sharp divisions and forces us into opposing camps. Then we dig into our trenches, blinded by righteousness.

At that point, the opportunity to work across our differences is lost. There certainly has to be a better way.

I want to dissect another straw-man advanced in Cam's article: the foolish nostalgic "foodie" who rejects modern technology seeking to return to a past that never existed.

Are traditional and modern technologies mutually exclusive? I think not. Let's look to Europe.

Across the Atlantic, a vibrant small-scale farming and processing industry co-exists with larger export-oriented agriculture. These innovative businesses are supported by generous government programs and enabled through appropriate food safety regulations.

Simon, a baker who recently moved to Manitoba from the Netherlands shared his frustrations about doing business in Canada. Food safety regulations prevent him from using his traditional European baking methods. Canadian regulations are forcing him to

over-sterilize, to over-process and to add preservatives, making these recipes impossible. But why?

Consider the notion of "retro-innovation" used in Europe where modern and traditional technologies and practices are combined to develop natural, organic and traditional products for both local and world markets.

Retro-innovation occurs here too, yet it is being marginalized instead of nurtured. In Europe, consumers aren't keeling over en masse from eating these foods. Yet, here in Manitoba, many of these same products are being deemed as "unfit for human consumption" and unduly vilified as dangerous.

Advocates of organic, local and natural food should indeed recognize the important role of modern appropriate technology in food and agriculture.

However, proponents of new technology need to be far more receptive to the role of traditional technologies in agricultural innovation.

The past is not as idyllic as often portrayed. Modern technology is not as universally beneficial as frequently argued. But in both cases, we shouldn't throw the baby out with the bathwater.

We should use and combine both modern and traditional technologies as means towards an end: healthy, sustainable and economically viable farming and food systems.

If we cut through the rhetoric, we're talking about families feeding families. We're all in this together and when it comes to the future of farm livelihoods, of the environment and of the health and safety of our families, the stakes are too high to waste our time beating up straw men.

4.9 Impact and Next Steps

As a scholar deeply committed to advancing movements for social justice and community resiliency through research, teaching and activism, the articles included in this chapter provided an opportunity to develop a voice as a public scholar and to raise public awareness of, and support for, the development of the local sustainable food movement in Manitoba. These articles were an important component our PAR team's strategy to pressure government to address the shortcomings of the one-size fits all regulatory and policy framework in Manitoba. Although the impact of the campaign is difficult to measure, it is clear that without the Real Manitoba Food Fight, that the incident at Harborside Farms would likely have gone relatively unnoticed and the political opportunity that this event represented would have been lost.

The advocacy and public relations actions of the Real Manitoba Food Fight pressured the Provincial government begin working with civil society organizations to consider how provincial food safety regulations can be adapted to better suit smaller scale operators and to support the development of the local food economy. The Real Manitoba Food Fight has also helped to galvanize the collective consciousness of alternative farmers, processors and consumer-citizens in the province as a group with common cause. Indeed, this incident has highlighted the need for a more strategic, organized and direct approach to interfacing with government to challenge the status quo and create a more supportive policy environment for local food. Thus, the loose collection of groups and individuals that have engaged with the Real Manitoba Food Fight campaign are now developing a more formalized coalition that would, amongst other things, be the point of interface with the Provincial government on policy matters related to small scale farming and processing in the province. Similar political and advocacy processes in Oregon

(Brekken, 2013) and in British Columbia (Miewald, Hodgson, & Ostry, 2013; Miewald, Ostry, & Hodgson, 2013) have yielded important regulatory changes to better support local food systems in these regions.

Although this chapter showcases writing targeted at a generalist and public audience, this cycle of inquiry also informs a number of more traditionally academic outcomes. Most immediately, the rhetorical act of including these unconventional publications in this dissertation, provide the basis for the subsequent discussions of knowledge mobilization, public scholarship and graduate student education in chapters five and six. Indeed, in chapter five, I make an argument for creating more space for a greater diversity of writing styles and mediums in graduate dissertations to better support the development of scholars who can more effectively contribute to social movements and community development efforts.

We are currently documenting and analyzing the Real Manitoba Food Fight, which will be the focus of an academic case study that analyzes political alliance building in the local food movement. We are also linking outwards to understand efforts to create scale-appropriate food safety regulations in other jurisdictions. Indeed, I am supervising Matt Ramsey, an honors thesis student is comparing similar campaigns in Manitoba, British Columbia and Oregon and I am developing a SSHRC insight development grant that proposes to build on this evolving research cycle. In the following chapter, I further build an argument for the importance of diverse forms of writing and publishing as an integral part of the process of doing action research and public scholarship.

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5 Cycle 4 - Mobilizing Knowledge Through Participatory Action Research: Transmedia, Hooks and Layers

Abstract: Universities are entrenched in a Knowledge Transfer paradigm where experts and professionals create and steward valid scientific knowledge and innovation, which is then transferred to knowledge users who are perceived as deficient in scientific understanding. Participatory Action Research (PAR), in contrast, reflects a more democratic Knowledge Mobilization paradigm where different types of knowledge are shared, exchanged and co-produced by diverse actors located both within and beyond the academy who are engaging in deliberate processes of social transformation. This paper examines a five-year action research project with the Harvest Moon Local Food Initiative and the Real Manitoba Food Fight in the Canadian Prairies. The paper argues that a Knowledge Mobilization framework can be used to map out, to valorize and to justify the ways by which PAR works across the boundaries between academic and public knowledge, and ideally deconstructs and dissolves the walls that separate the two. To this end, our PAR team used three innovative Knowledge Mobilization strategies: Using *transmedia* to exchange knowledge via a combination of platforms and mediums; Setting *hooks* to draw together diverse knowledge communities; and *layering* to deliver knowledge at varying levels of detail and complexity. By challenging and transgressing the boundaries that separate the academy from the public, PAR provides an important approach to transforming universities to better serve the public good.

5.1 INTRODUCTION: ACTION RESEARCH AND KNOWLEDGE MOBILIZATION

As an antidote to the increasingly corporatized and professionalized university, there has been a resurgent interest in "public scholarship"; or research and teaching that intentionally engages with public(s) to advance the public good (Burawoy, 2005; Denzin, 2003; Fuller & Askins, 2010; Giroux, 2011; Reason & Bradbury, 2001). Participatory Action Research (PAR) reflects a range of research methods and processes that work with communities at multiple scales of organization in deliberate processes of social transformation (Creswell, 2013; Dickens & Watkins, 1999; Greenwood & Levin, 2007). PAR has been taken up across disciplines, particularly in the social sciences, and has been applied, for example, in the fields of public health (Minkler & Wallerstein, 2010), rural development (Chambers, 1994), geography (Pain, 2003, 2004), education and literacy (Freire, 1982).

Traditional Action research (Lewin, 1946) focuses on organizational development to identify ways to increase efficiency and improve practice (Herr & Anderson, 2005, p. 16). This consultant-driven research leans towards a conservative politic in that it often serves to reinforce existing power relations rather than to challenge them (ibid). In contrast, a critical *Participatory* Action Research approach explicitly works with disempowered communities and individuals to address injustice, increase resiliency, build capacity and challenge oppression at multiple scales (Kemmis, 2007). Reason and Bradbury define PAR as,

> *A participatory process concerned with developing practical knowing in the pursuit of worthwhile human purposes. It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their communities. (Reason & Bradbury, 2008, p. 4)*

PAR is thus a critical and reflexive process for engaging and working with individuals and communities in pragmatic problem solving through iterative cycles of reflection and action (Reason & Bradbury, 2001, p. 12). It challenges expert culture, which serves to delegitimize popular and lived knowledge (Chambers, 1997) and to reify the knowledge monopolies held by positivist science, experts and universities (Gaventa & Cornwall, 2008). Indeed, PAR is rooted in what Visvanathan (2005) calls a movement for "cognitive justice" that asserts, "the right of different systems of knowledge to exist as a part of dialogue." However, because PAR challenges dominant power structures tied to the vested interests of class, power and state, it has been both overtly contested (e.g. Hausknecht, 2002) and also systemically undermined in a university mired in positivism and expert culture (Gaventa & Cornwall, 2008).

Mainstream approaches to academic research generally dichotomize actors as "knowledge producers" and "knowledge users/consumers," reflecting a unidirectional transfer of flow of knowledge and technology from a scientific center to a lay periphery (Estabrooks et al., 2008). Academic "extension" and "knowledge and technology transfer" assumes that it is the role and responsibility of scientists alone to generate and disseminate expert knowledge and innovations to knowledge users, these including practitioners (Fothergill, 2000), industry actors (Siegel, Waldman, Atwater, & Link, 2004), or the lay public (Hausknecht, 2002), who are viewed as deficient in scientific understanding (McWilliam, Kothari, Ward-Griffin, Forbes, & Leipert, 2009). Thus, academic knowledge and professional science, act as privileged frames, ones that impose closure and that excludes competing views, especially those of disadvantaged groups in society (Delgado, Lein Kjølberg, & Wickson, 2011).

In resistance to this hierarchy of knowledge, PAR embodies a Knowledge Mobilization paradigm that is based on, "*reciprocal relationships between researchers and knowledge users for the (co-)creation and use of research knowledge*" ((SSHRC) Social Sciences and Humanities Research Council, 2006). Knowledge Mobilization suggests that knowledge best serves the public good when it is shared, exchanged and co-produced by a wide diversity of actors located both within and beyond the academy (Graham et al., 2006). PAR research programs work across the boundaries between academic and non-academic knowledge(s) and labor. Thus, PAR researchers challenge the privileged, expert frame -- that universities and professionals often reproduce through a Knowledge Transfer paradigm -- by embodying a more democratic and grounded process of Knowledge Mobilization. However, in order to enable this more critical, democratic and just Knowledge Mobilization, it is necessary to valorize the processes and outcomes of PAR in academic evaluation and incentive structures, which are often disregarded as "non-academic."

5.1.1 Valorizing "non-academic" PAR Outcomes

Although PAR is increasingly promoted in academia (Hall, 2005), it is still marginalized by the dominant discourses of positivism and the norms of academic performance evaluation (Greenwood, 2012). PAR is used more often in interdisciplinary programs, which are underfunded and marginalized, relative to traditional disciplinary departments (Glenn, 2007). Developing effective PAR research teams is time-consuming and may not yield the traditional outcomes expected of academics (theory, peer-reviewed publications) without substantial investments of time and resources (Greenwood, 2012). Further, most universities have few, if any, courses in PAR and many departments lack

expertise in terms of mentors and supportive committee members (Gibbon, 2002; Greenwood, 2012; Herr & Anderson, 2005). Indeed, many faculty members are unfamiliar with or even disdainful of PAR (Hubbard, 1996). These and other institutional barriers especially discourage early career researchers from undertaking PAR (Herr & Anderson, 2005; Maguire, 1993; Moore, 2004) to the extent that Moore (2006) claimed that PAR is, "antithetical to academic success" (Moore, 2004).

The legitimacy and acceptance of PAR is generally undermined by academic performance evaluation processes rooted in a positivist ontology (S. McKenna, Richardson, & Manroop, 2011), that demands objective, observable and measurable quantitative evidence to evaluate the quality of academic contributions. This narrow focus on, "scientific expertise, peer review, and non-interference" (Estabrooks et al., 2008, p. 1068), delegitimizes alternative knowledge(s), and disregards many of the important outcomes that arise from community-engaged research by "othering" these as being "non-academic" or "not theoretical" enough (Cancian, 1993, p. 102; Gabriel, Harding, Hodgkinson, Kelly, & Khan, 2009, p. 319).

Generally, the evaluation of academics and academic research emphasizes academic (peer review) publications and especially those that make an "original contribution" to social and scientific theory. However, Winter (2000) questions these systems of evaluation, arguing that we need to critically ask, `Original for whom? Publishable where?" (Winter, Griffiths, & Green, 2000, p. 36). Performance evaluation in universities has been argued to create a "self-referential and self-reinforcing system" that reifies expert culture, promotes conformity to positivist research traditions and that undermines alternative approaches to knowledge mobilization (Mitchell, 2006; Shore & Wright, 1999, p. 570). Academic auditing systems ensure that universities are accountable

according to internal quality criteria, however provides no guarantee that universities are accountable to the public good (Apple, 2005). In this context, there is a crisis of confidence in the legitimacy of universities and in the relevance of the social sciences (Manicas, 2003) and poses legitimate challenges to the monopoly that academia holds as producers and holders of knowledge (Gaventa & Cornwall, 2008). By embracing a Knowledge Mobilization paradigm, PAR represents an important approach to democratizing knowledge, re-grounding universities in the public need and thereby increasing the relevance of universities.

The valorization of PAR in universities requires alternative evaluation tools that are directly tied to resource allocation (i.e. funding), personnel reviews, student evaluation, and promotion and tenure. These must recognize that effective PAR generates research outcomes or "products" (Fine & Torre, 2008) that contribute to immediate pragmatic outcomes in communities as well as to longer processes of social transformation and grassroots innovation. Thus, PAR researchers must construct knowledge that is, first, immediately useful in the context of the study and, second, that develops concepts, frameworks, narratives and theory that can inform social change in other contexts. The dominant approach to academic performance evaluation is inadequate, most obviously, because it marginalizes or excludes action-oriented outcomes (Herr & Anderson, 2005). Traditional evaluation criteria focuses primarily on the products of intellectual work rather than the processes of use (Galin & Latchaw, 2010) and fails to recognize the inseparability of action and theory in PAR. We need to, "pay more attention to the embeddedness of means in the ends" (Chevalier & Buckles, 2013, p. 5) as well as embedding ends within the means (Ward, 2006). The quality, impact and

value of PAR is reflected in the "enduring consequences of the research for self, persons and communities" (Bradbury & Reason, 2006).

PAR challenges the conventions in academic publishing, engaging in diverse communications strategies and tools to enable the mobilization of knowledge including:

> *Research reports completed for, and used by, non-academic organizations; evaluation research instruments and outcomes; documentation of involvement in community-based research and educational activities; transcripts of public testimony at government policy hearings; published op-ed columns and other commentary in media outlets; or visual media substantially utilizing a candidate's research (ASA Task Force, 2007)*

Academic and peer reviewed publications alone are woefully inadequate Knowledge Mobilization tools; first because the writing is usually inaccessible beyond a specialized expert readership; and, secondly, the body of knowledge is largely inaccessible to the public, locked behind the costly licenses of journal publishers and restricted institutional library access (L. McKenna, 2013).

PAR advocates have thus begun to challenge the restricting orthodoxy of positivist academic evaluation to carve out new spaces within the academy for other more relevant and action-oriented outcomes. However, to be effective and gain legitimacy in the professional academy, PAR researchers are still required to adapt their work to meet the requirements of the mainstream university evaluation system and, ultimately, to produce conventional academic outcomes (Noy, 2009). This represents a double burden for PAR researchers: firstly, to gain legitimacy through generating outcomes that conform to academic conventions; and, secondly, to generate outcomes that are relevant to communities, but that are effectively ignored by the academy. Greenwood (2012) suggests that PAR researchers must be politically savvy to gain legitimacy in the academy, which can be used to challenge the status quo by exploiting,

> *The patent contradictions between the announced aims and the repressive methods used by educational policy-makers, assessment experts, and academic administrators and to make the case for action research as a significant step in the direction of valid, dynamic, and relevant social research. (Greenwood, 2012)*

Thus, from the privileged spaces within academic institutions, public scholars can potentially access the resources and knowledge locked in the vault of the expert academy and apply them for public good. It is from within that we can culture a Knowledge Mobilization paradigm that helps destabilize the monopoly of positivist-expert-scientific knowledge and power.

This chapter will highlight and valorize the diverse outcomes of a six-year (and running) PAR project to demonstrate the wider effects that a PAR approach can have in mobilizing knowledge. According to conventional academic performance criteria, the outcomes described in this paper would be disregarded, at worst, as "non-academic" and, at best, marginalized as being "community housework" (Hubbard, 1996). To valorize the "non-academic" contributions of our PAR project, I first describe four iterative cycles of inquiry and, where possible, quantify the key outcomes of each cycle. While this approach can bee seen as force-fitting these PAR outcomes into a positivist evaluation framework, I also provide a narrative description of the wider, less quantifiable, impacts of the project. I then discuss how, when viewed longitudinally as a part of an ongoing action research program, the "academic" and "non/extra-academic" outcomes of the project were mutually dependent in the process of constructing innovative hybrid knowledge and in enabling social change and innovation.

5.2 Our Action Research Project: Valorizing the Diverse and Hybrid Outcomes of Participatory Action Research

Our PAR team involved a diversity of contributors including: 35 community members, 11 undergraduate students, 2 PhD students and 2 tenured academics. This research was based out of the town of Clearwater, located approximately 200 km southwest of Winnipeg in the Canadian Prairies. The formal PAR project builds on a longer-standing relationship between the community of Clearwater, a rural NGO called the Harvest Moon Society and the Environmental Conservation Laboratory at the University of Manitoba. This relationship was formalized as PAR through the lead author's dissertation research.

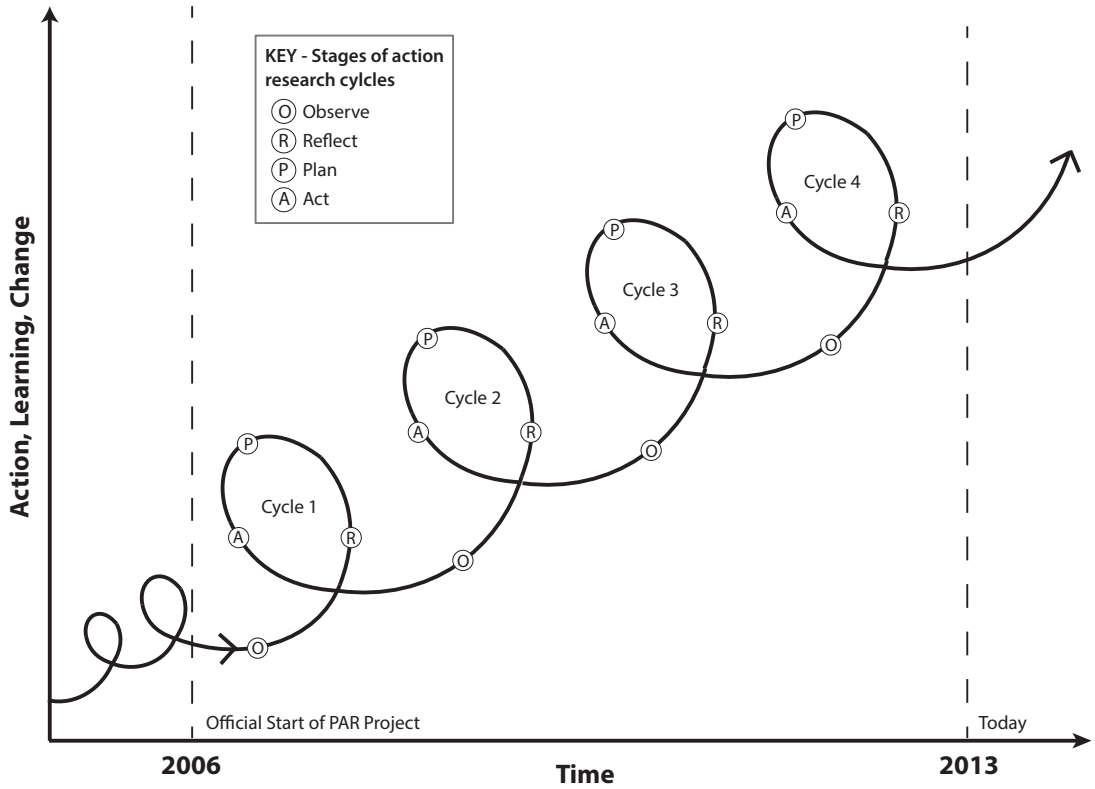

Figure 5.1 - Each iterative cycle increases the knowledge and capacity for action as questions are identified, addressed, resolved (however partially).

PAR involves a spiral of cycles of inquiry (McKay & Marshall, 2001) that generally unfold based on the following phases: a) identifying a problem and planning an action intended to bring about a desired change; b) undertaking action to address the desired change; c) observing the consequences of this action; d) and reflecting on the meaning of these observations to inform the planning of future action (i.e. the next cycle of inquiry) (Kemmis & McTaggart, 1988). Our PAR project involved four main iterative cycles of inquiry, themselves made up of multiple sub-cycles of inquiry (Figure 5.1). *Cycle 1* examined how farm households adapted to the BSE ("mad cow disease") crisis in the Canadian Prairies, identifying direct marketing and cooperatives as important adaptations. *Cycle 2* established and developed a cooperative direct marketing and education initiative in southwestern Manitoba that was at least partially grounded in the BSE crisis. *Cycle 3* involved reaching out to learn from similar initiatives in Canada and the United States. *Cycle 4* involved supporting a member of that cooperative initiative and pressuring the Manitoba government to establish more scale-appropriate policies and regulations that better support small scale farmers and food processors.

5.2.1 Cycle 1 – Farm Household Adaptation to BSE in Canada

On May 23, 2003, the discovery of Bovine Spongiform Encephalopathy (BSE) in a single cow in Canada triggered a socio-economic crisis for Canadian farm families. In response, Stephane McLachlan (my PhD advisor), working with a team of graduate students, developed a study to evaluate the social and environmental impacts of the BSE crisis on farmers across western Canada with the explicit goal of applying the results to support family farmers as they adapted to the crisis. We used a mixed methods approach

and collected data using a large-scale mail-out survey (n=826), a series of focus groups (n=12) and individual interviews (n=27). We found that direct farm marketing, cooperatives and value-added niche food production emerged as important grassroots adaptive responses. The study resulted in one peer-reviewed publication (C. R. Anderson & McLachlan, 2012) but, importantly, provided the seed for the next cycle of inquiry and a point of departure for the development of the Harvest Moon Local Food Initiative (HMLFI) – a cooperative local food initiative that would increase opportunities for family farms to market value-added food directly to consumers.

5.2.2 Cycle 2 – The Harvest Moon Local Food Initiative

In August 2006, as a part of an experiential learning course, we toured three local livestock farms, asking each farmer questions regarding our emerging analysis of the BSE crisis (from cycle 1). Each of the farmers was minimally engaged in direct farm marketing and expressed enthusiasm over the growing consumer interest in local food. However, they raised concerns that the time and resource demands of direct marketing prohibited them from expanding their engagement in this strategy. These preliminary discussions suggested that a cooperative approach might help farmers overcome these challenges. After a number of preliminary scoping meetings with the farmers who originally expressed an interest in developing a cooperative, and others identified through referral, we formed the HMLFI. On January

Figure 5.2 - Images from visioning meeting of the Harvest Moon Local Food Initiative

26 2007, we held a visioning workshop (Figure 5.2) and identified three main objectives to guide our PAR project: a) *build local food economies* to improve farmer livelihoods; b) to develop *educating and training* programs related to sustainable agriculture and local food, and; c) to *share our experiences* to help other groups to develop similar initiatives ((HMLFI) Harvest Moon Local Food Initiative, 2007). This stage of reflection and planning would provide the foundation for the successive rounds of action research and the diverse outcomes generated over the next six years.

To reach our first objective to build local food economies, we established a local food- marketing group through two sub-cycles of inquiry. The first sub-cycle lasted from December 2006 to February 2010 and focused on selling wholesale products to restaurants and stores (video 5.1, 492 views); it ultimately disintegrated because of divisions within the group (C. R. Anderson, McLachlan, McDonald, & Gardiner, In review) (chapter 4).

Video 5.1 - Launch of the Harvest Moon Local Food Initiative at the fall music and rural culture festival in 2008. http://www.dailymotion.com/video/x8uv5e_harvest-moon-local-food-initiative_people

Applying the learning from the first round of inquiry, a second sub-cycle of inquiry led to a re-vamped iteration of the HMLFI marketing group in April 2010. As of October 2013, the HMLFI involves 12 farm families and 11 buying club organizers supplying over 90 different locally produced products. Each month, eaters place orders for food on-line (www.harvestmoonfood.ca) and orders are delivered monthly to over 435 buyers in Winnipeg, Brandon and rural Manitoba. The HMLFI offers a direct

connection between farmers, eaters and like-minded families in the community (video 5.2, 204 views).

Throughout the development of the HMLFI, we carried out a diversity of smaller research projects (sub-cycles of inquiry) that shaped the trajectories of our development, and of our learning. Early on, we hired a consultant who to undertake a feasibility study and craft a business plan for the HMLFI. Ironically, our PAR group rejected the recommendations from this external consultant which we considered to poorly reflect the needs and reality of the group, deciding instead to proceed based on the group's own knowledge, research and insight (C. R. Anderson & McLachlan, In preparation). In Spring 2013, we worked with two groups of students as part of a service-learning project for a third-year university course, resulting in two important and actionable reports. The first report surveyed HMLFI farmers and organizers (n=12) and generated a set of recommendations to improve the internal governance of the initiative (Leung & Neufeld, 2013). The second report surveyed HMLFI eater members (n=283) generating fifteen recommendations (C. R. Anderson, 2013a). The HMLFI implemented many of the recommendations from these two reports and continue to refer to them in the ongoing development of the initiative.

Video 5.2 - Harvest Moon Local Food Initiative video. https://vimeo.com/24041463

To reach the second HMLFI objective (education and outreach), our PAR group carried out an extensive education program to communicate our emergent findings and

to build capacity related to community organizing, sustainable agriculture and local food systems in the province. From March 2011 to March 2013, we organized two 72-hour intensive residential permaculture courses, 41 workshops, 24 fieldtrips and two University of Manitoba travel courses. One of our programs, *InFARMation and Beer*, involved five free events held at local Winnipeg pubs. These events blended celebration with education and focused on informing urban eaters on issues related to our PAR project and on promoting practical and political actions to support the growth of a more just and sustainable food system in Manitoba and beyond. Over a four-year period, 2,454 people participated in these training and education programs (994 males over 18, 1,089 females over 18; 160 males under 18; 211 females under 18).

5.2.3 Cycle 3 – Linking, Sharing and Learning

The second cycle of inquiry involved a series of case studies documenting other "civic food networks" across Western Canada and the USA to inform the development of the HMLFI and to develop a peer reviewed journal article (C. R. Anderson & McLachlan, In preparation) (chapter 4). As a part of this process, we organized a study trip to learn from the Oklahoma Food Co-op –- the longest standing on-line local food cooperative in North America. Based on the recommendations in the resulting report (C. R. Anderson, Carpenter, & Barnett, 2011), we implemented a new ordering and delivery system and

Video 5.3 - Oklahoma Food Cooperative. http://www.youtube.com/watch?v=nz-ALOpAtrc

changed the HMLFI governance structure. These changes were immensely successful and our sales volume tripled in the following year. We continue to refer to this study trip in our ongoing planning. We also generated a short documentary video (video 5.3, 259 views) that we also screened at one of our InFARMation and Beer workshops (185 attendees) to report back on our study trip and to generate excitement about the impending changes to the HMLFI.

To reach the third HMLFI objective (sharing our story), our PAR group actively worked to assist others in developing similar initiatives elsewhere in the province and beyond. In the fall and winter of 2012-2013, we organized six focus groups with rural agricultural communities in Manitoba to develop plans to support direct farm marketing and other action research projects that they identified in their regions. These workshops were coordinated by Jackie Avent and Julia Laforge and resulted in a report entitled, *Sustainable Inter-Regional Food Systems* (Laforge & Avent, 2013). We also advised a group of farmers in Saskatchewan as they developed their own farmer-driven local food marketing group called, Farmers Table (Romaniuk, 2013).

5.2.4 Cycle 4 – The Real Manitoba Food Fight

The fourth cycle of inquiry emerged from a food inspection and seizure on the farm of HMLFI founding farmer members, Pam and Clint Cavers. As a part of the University of Manitoba *Living Rural Communities and Environments* experiential learning course, we were scheduled to visit the Cavers' farm. However, hours before the class was scheduled to arrive, Manitoba Agriculture, Food and Rural Initiatives (MAFRI) food safety inspectors arrived at the Cavers to "seize and destroy" their stock of locally produced and processed cured meats.

After hearing news of the raid, we canceled the tour. However, with encouragement from the Cavers, I arrived with two students who began videotaping the confrontation (video 5.4). The incident has been marred in controversy and secrecy on the part of the Manitoba government. An important outcome of the course was the organizing of a political campaign called, the Real Manitoba Food Fight. This campaign aims to challenge the food safety regulatory regime on the grounds that it benefits industrial agri-food systems, and consequently marginalizes alternatives (community, sustainable, small, fair, organic, just).

Video 5.4 - The Real Manitoba Food Fight. http://www.youtube.com/watch?v=H1F6sCPMlm8)

The Real Manitoba Food Fight was launched on August 31, 2013, with the publication of an interactive website *www.realmanitobafoodfight.ca*. The website has since had 9,180 unique visitors and is being used to aggregate related news stories, to accept donations, to promote our social media presence (Facebook – 578 friends), to gather signatures for a petition (804), and to host a short documentary video created in collaboration with two undergraduate students: Jon Venture and Jesse Vanderhart (video 5.4, 1,225 views).

Between September 7 and October 11, 2013 we published seven articles in the popular print media and also in on-line forms (table 5.1). The print based versions of

these pieces were circulated to 184,854 readers/viewers[5]. In response to the Real Manitoba Food Fight, MAFRI agreed to participate in a meeting to discuss the relationships between food safety regulations and local food. This meeting took place on October 18, 2013 and was an important first step towards establishing a working relationship between MAFRI and the local, artisanal, small-scale food community. At the meeting, MAFRI committed to continue working with our emerging coalition to develop policy and programs that better meet the needs of small-scale farmers and processors.

Title	**Date First published**	**Versions published in the following venues and "Readership" as of Oct 11, 2013**
www.realmanitobafoodfight.ca	08.31.2013	a) World wide web (9,180 unique visitors. 797 signatures on petition)
The Two Faces of Local Food	09.06.2013	a) Winnipeg Free Press (108,151 average for Friday paper) b) Western Producer (44,523 qualified circulation) c) Manitoba Cooperator (11,500 subscribers) d) Canadian Centre for Policy Alternatives Fast Facts (~1800 on distribution list) e) 11 Community Newspapers in Manitoba
Is this really "Normal Procedure"?	09.7.2013	a) www.realmanitobafoodfight.ca (1,847 unique views. Average time on page 7m41s) b) 8 Community Newspapers in Manitoba
Muddying the Waters. Experts, Citizens and Food Sovereignty.	09.12.2013	a) www.realmanitobafoodfight.ca (293 views. Average time on page 4m06s)
Real Food Fight Video	09.14.2013	a) YouTube (1,262 views) b) Screening at Harvest Moon festival (~1,000 attendees)
Looking back to look forward	10.02.2013	a) www.realmanitobafoodfight.ca (169 unique visitors; Average time on page 4m05s; b) Western Producer (44,523 qualified circulation)
Experts and the Food Safety Trump Card	10.13.2013	a) Manitoba cooperator (11,500 subscribers) b) www.realmanitobafoodfight.ca (135 unique views. Average time on page 2m45s)
Beating up Straw Men	10.18.2013	a) www.realmanitobafoodfight.ca 207 unique visitors; Average time on page 4m49s b) Manitoba Cooperator (11,500 subscribers)

Table 5.1 - Key "non-academic" publications from Cycle 4.

[5] Most of the print versions of these contributions were also posted by the publishers in a web version, thus further extending the reach of these outcomes.

5.3 KNOWLEDGE MOBILIZATION: TRANSGRESSING THE BOUNDARIES BETWEEN THE EXPERT-ACADEMY AND THE LAY-PUBLIC

The praxis represented in this, and other, PAR project(s) problematizes the distinction between academic and non-academic processes and outcomes and, thus, the distinction between the public and the academy. The majority of the outputs discussed in this paper were generated by both community and university actors and were put to use in both academic and community spaces. All outcomes drew from and fused together what is typically separated as lived-local-lay knowledge and as academic-theoretical-expert knowledge. The public scholarship outcomes (videos, Op Eds, workshops) and the traditional academic outcomes (presentations at academic conferences, peer review journal articles, etc.) fed into one another and were mutually dependent. Indeed, most of the outputs of the PAR project (academic papers, videos, etc.) were cyclically put back to work in the next round of inquiry and informed the development of other products and outcomes. The connection of the PAR group with a university and with 'experts' also lent credibility to the project, which arguably allowed us to access grant money, to be viewed as legitimate by community members outside of our PAR group, and to gain access to institutional resources that, otherwise, would have been unavailable.

Our fourth main cycle of inquiry (The Real Manitoba Food Fight) illustrates the transgression of "academic" and "non-academic" knowledge that occur through the iterative cycles of PAR. Without exception, the "non-academic" outcomes informed and arose from the academic outcomes. For example the Op Ed titled, "The Two Faces of

Local Food" (C. R. Anderson, 2013b) drew from the outcomes of the second cycle[6] to locate the Real Manitoba Food Fight within a broader critique of the relationship between the government policy and local food economies. The analysis developed through this, and other, popular writing is now being incorporated as a case study in a forthcoming journal article[7] (Laforge et al., In preparation) and is also being used to develop a policy/research brief for a scholarly journal (Anderson et al., In preparation). Finally, as the Real Manitoba Food Fight unfolds, we are tracking the discourse in the media and the actions of civil society and government actors that will be used to develop a peer-reviewed journal article. Through the cycles of inquiry, PAR outputs become PAR inputs in the successive cycles of inquiry as the division between research processes and outcomes are blurred.

5.4 Knowledge Mobilization: Transmedia, Layering and Setting Hooks

In our efforts to transgress the borders between academic and "non-academic" knowledge(s) and spaces, we employed three Knowledge Mobilization strategies. The first strategy, *using layers*, recognizes that ideas can be communicated at varying levels of detail and complexity and that different knowledge users/creators may require different entry points to effectively participate in Knowledge Mobilization. However, layering does not endorse a hierarchy of knowledge based on an *a priori* assumption that greater levels of relatively inaccessible detail and complexity are more valuable than less complex and less detailed conceptual frameworks and ideas. Rather, the question that determines value

[6] Interviews with farmers in Manitoba, Saskachewan, Alberta, British Columbia, North Dakota, South Dakota and Oregon (Laforge, Anderson, & McLachlan, In preparation)

[7] The text from the Op Ed was literally copied and pasted as a starting point to develop this case study

and indeed creates a new hierarchy of knowledge is: to what use can this knowledge (complex or simple) be used to advance the public good?

To be effective, PAR researchers strategically determine the level of complexity required to effectively communicate their core ideas and arguments with different types of knowledge user/creators (e.g. professional academics vs. farmers vs. policy makers). For example, we are currently using the term 'retro-innovation' to package more complex ideas related to the combining traditional and modern technologies in rural development practice and in grassroots innovation. By linking from this simplified layer (the word, retro-innovation) to more complex or detailed layers of information, for example communicated through a research brief or a full paper that theorizes retro-innovation (Stuiver, 2006), knowledge users/creators can gain further capacity and understanding. Conversely, it may be necessary to present simple ideas, such as retro-innovation, by adding empirically detailed and/or theoretically complex layers in order to gain legitimacy to policy makers or to appeal to academics.

The second communications strategy, *setting hooks*, recognizes that knowledge users/creators are strategically engaged by intentionally employing key words, examples, metaphors, objects and discourses that appeal to their politics, sensibilities and interests. For example, the word, "innovation", is a hook that can draw in knowledge creators/users who are drawn to the language of entrepreneurialism and thus mark ideas as legitimate and useful when they are couched in market terms. Using a hook can draw individuals into communicative spaces that they otherwise would have been unlikely or unwilling to enter, who can then explore more holistic and subtle layers of understanding, opening up new opportunities for knowledge creation and political change. Our InFARMation and Beer program, for example, was largely successful because we created

an entertaining space (in a pub) and communicated in a way that drew individuals together to interact with our ideas who may not have read an academic paper or attended a more formal conference. In this case, our hook was entertainment, and we communicated this in the jocund title of the event.[8] We have also found that the use of metaphor has been a very useful strategy for setting hooks and have used, for example, the following provocative metaphors in the titles of articles and Op Eds: "food fight", "beating up straw men", "trump card", "muddying the waters" and "two faces".

These hooks are similar to boundary objects, which are shared and shareable concepts or things that establish a shared context that "sits in the middle" (Star & Griesemer, 1989, p. 47) between social worlds. They are, "both plastic enough to adapt to local needs and constraints of the several parties employing them, yet robust enough to maintain a common identity across sites" (p. 393). While boundary objects act to maintain, "coherence across intersecting social worlds" (Star & Griesemer, 1989, p. 393), these hooks are more experimental, fleeting and less durable. Instead, hooks serve to catalyze moments of transgression and may (or may not) evolve into more durable boundary objects. Like boundary objects, however, these hooks can draw together actors from different social worlds to catalyze new insight, innovation, knowledge and products (Carlile, 2002; Fong, 2003).

The third Knowledge Mobilization strategy, using *transmedia*, recognizes that different knowledge users/creators will be more or less receptive to ideas presented through different communication forms and media (Scolari, 2009). A transmedia

[8] The even title and concept (InFarmation and Beer) was borrowed, with permission, from a group in Oregon called the Friends of Family Farmers who I collaborated with during nine-months of field-work in 2010-2011. I should also note that the title (and use of beer as a hook), obviously, would not appeal to everyone.

approach involves telling stories across multiple media (Scolari, 2009) where, "each medium does what it does best - so that a story might be introduced in a film, expanded through television, novels, and comics, and its world might be explored and experienced through game play" (Jenkins, 2003). Transmedia are used extensively in corporate entertainment franchising, take for example: *Pokémon* (Jenkins, 2006), Jim Henson's *Labyrinth* (Long, 2007) and *The Matrix* (Jenkins, 2006). They have thus amounted to an effective corporate marketing strategy; yet, PAR teams can creatively, critically and reflexively learn from and appropriate these strategies to serve the public good. Gunther Kress (2004) argues that effective communication in the age of "new media" requires the strategic combination of multimodal forms of expression (Kress, 2004). Traditional media and new media can both be unidirectional and static (academic papers, static websites, emails) or interactive and dynamic (peer-review, panel discussions, workshops, in-person conversations, blogs). New media technologies, however, have introduced new and exciting, yet largely unrealized, opportunities for interactive communication (Kaplan & Haenlein, 2010) and, indeed, for Knowledge Mobilization in academia (Fuller & Askins, 2010).

We incorporated transmedia into our Knowledge Mobilization approach, especially in the fourth cycle of inquiry (The Real Manitoba Food Fight). For example, *the design* of the campaign name, website and logo embodied a transmedia approach as we embedded our critique of food safety regulations in a parody of the Manitoba Government (figure 5.3). We further built our case through the use of social media (Facebook), face-to-face meetings, on-line video, writing in the popular media, blogging and academic manuscripts. When possible, we cross- or hyper- linked these media, for example, by directing viewers of the video to our website and screening the video on stage

at a rural music festival, and finally by embedding the video in the forthcoming academic contributions (C. R. Anderson et al., In preparation; Laforge et al., In preparation). Each of the diverse media we used reached different types of knowledge users/creators and, when combined, arguably created synergies that greatly enhanced our Knowledge Mobilization efforts and the ultimate impacts of these activities.

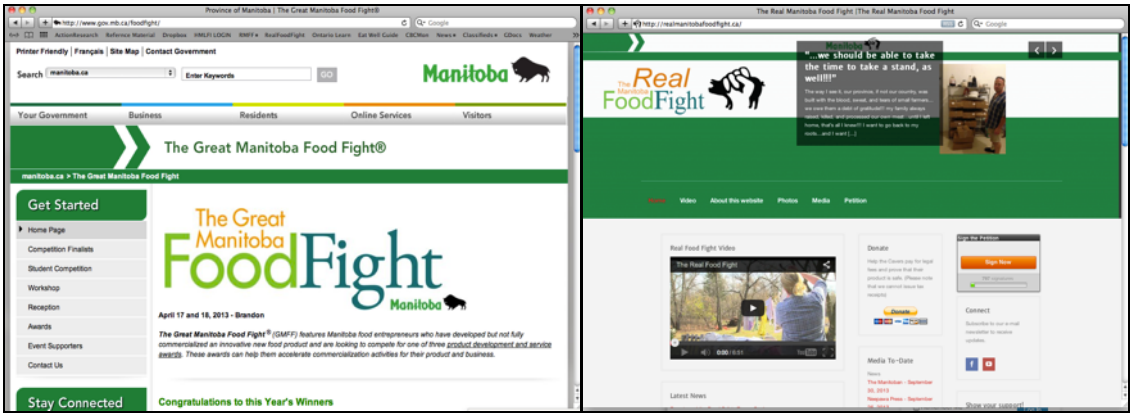

Figure 5.3 - Left: Screenshot of the Manitoba Government's Great Manitoba Food Fight webpage. Right: Political campaign website of the Real Manitoba Food Fight designed using parody.

5.5 Final Remarks

This paper demonstrated how the iterative cycles of action and reflection that characterize Participatory Action Research (PAR) result in a diversity of outcomes that blend and fuse public and academic knowledge and action. Each of our PAR outcomes unfolded from previous cycles of inquiry and, further, informed each successive cycle of inquiry. The resulting diversity of PAR outcomes included traditional academic contributions, but, perhaps more importantly, they resulted in tangible and immediate impact, which, in turn, fed back as inputs into the next rounds of PAR inquiry. Our research clearly shows that an engaged and democratic dialogue between knowledge

users/creators located both within and beyond the academy hold much promise as a public good. However, it remains to be seen if most of the "non-academic" outcomes profiled in this chapter will remain undervalued or rendered invisible in the prevailing academic evaluation and incentive paradigm (Greenwood, 2012).

This chapter suggests that a Knowledge Mobilization framework can be used to map out and to justify the ways by which PAR transgresses the boundaries between academic and public knowledges, and, ideally, deconstructs and dissolves the walls that separate the two. Indeed, when we politically foreground the public good in our research endeavors, we are obliged to pragmatically view these socially- constructed boundaries with indifference. As university- based PAR researchers, we can strategically suppress our "expert" status to give voice to our community co-researchers, while at the same time embrace and channel this expert identity when it serves the communities we are working with. Negotiating this balance requires political savvy, rigor and critical reflexivity to ensure that our actions promote the public good, social justice and sustainability. By challenging and transgressing the boundaries that separate the academy from the public, participatory action researchers can also contribute to transforming the academy to better serve the public good.

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6 Cycle 5 – Public Scholarship, Graduate Education and Coloring Outside of the Lines

Abstract: Universities are increasingly criticized for becoming self-referential, for reflecting neoliberal values, and for abandoning the institutional commitment to serving the public interest. In response, there has been a call to re-assert "public scholarship" in the academy through research and pedagogy that is directly oriented towards the public good. In this paper, I examine my own performance of public scholarship as a graduate student, through a performative autoethnographic script. I deconstruct graduate education, the dissertation and the professionalizing discourses that impede a vibrant public scholarship. Advocates of public scholarship should re-imagine graduate education in order to cultivate a generation of scholars capable of effectively performing public scholarship and acting politically to foreground the public good in the academy. Any hope to revalorize public scholarship will simultaneously require individual reflexivity, critical dialogue and political action. Thus, the transition towards public scholarship must be rooted in critical pedagogy where students, faculty and the public engage in a process of mutual learning and transformation.

1.1 INTRODUCTION

> *The thesis must constitute a distinct contribution to knowledge in the major field of study and the material must be of sufficient merit to be, in the judgment of the examiners, acceptable for publication.*
> - (University of Manitoba Dissertation Guidelines, 2013)

> *[your book will] not be understandable to 99.8 per cent of the population and is thus, political death for what we work for. A first year undergrad and a front line NGO staff need to be able to clearly understand and engage with the manuscripts and that contributors should have this in the forefront of their minds.*
> -Wayne Roberts, personal communication to myself and two graduate student co-editors of a book

When juxtaposed, these two prefatory quotes exemplify a central conundrum faced by public scholars. The issue is this: the academic labor, language and outcomes that are considered to be 'valuable contributions' in the academy, are typically less valued, or even considered to be irrelevant, by the public. And, conversely, the academic labor, language and outcomes produced by public scholarship are typically less valued, and often considered to be irrelevant, within academia.

The (re)articulation of "public sociology" by Michael Burawoy (Burawoy, 2005) has generated a great deal of excitement and renewed discussion about public-interest scholarship in Sociology, Geography and beyond (Bezruchka, 2008; Calhoun, 2005; Chatterton, 2008; Fuller, 2008; Fuller and Askins, 2007; Loader and Sparks, 2013; Raphael, 2008; Smith, 2010). Of course, despite this moment of definition and a naming of 'Public Scholarship', the notion of public-interest research and pedagogy is by no means new (e.g. Freire, 1970) and despite the authoritative claiming of public scholarship as a disciplinary endeavor (i.e. Public Sociology, Public Geography), critical public scholarship occurs far beyond and across any disciplinary boundaries (see: Holmwood, 2007). Indeed, public scholarship is arguably most effective as an interdisciplinary (or

even anti-disciplinary) project[9] (Glenn, 2007). Regardless, Burawoy and his interlocutors have re-kindled a much-needed discussion about the role of the academy in society and the value of different types of scholarly labor. This conversation is especially germane given the widespread critique that universities are increasingly prioritizing self-reproducing and market-oriented pursuits over those that directly contribute to the public good (Bok, 2009; Castree and Sparke, 2000; Deem, 2001).

Public scholarship has almost exclusively been developed through the writing of well-established academics from the security of tenured positions and of academic prestige. Indeed, Michael Burawoy's seminal manifesto for a "public sociology" (Burawoy, 2005) and his subsequent publication of 17 articles on the topic over the last 8 years, is a case in point. Burawoy's first contribution was delivered from a pulpit during the presidential address to the American Sociological Association. Well-established faculty should undoubtedly be leveraging their positions, privilege and academic freedom to promote public scholarship and to critique the academy, especially when it undermines the public interest. However, in order to culture an academy that values public scholarship, we need to also focus on graduate students today, some of whom, after all, will be the privileged tenured faculty members of tomorrow. Graduate education is a key moment in reproducing the academy (Bourdieu and Collier, 1988) and represent important foci for growing public scholarship.

It is perhaps obvious, but worth reiterating, that students are poorly positioned to challenge the status quo in academia and that graduate students are subject to the intense disciplinary power of academic professionalization (Bourdieu and Collier, 1988).

[9] From this point on, I will use "public scholarship" as a cross-disciplinary umbrella term except when citing authors who speak specifically to public sociology.

Although public scholarship seems to be *en vogue*, the reality is, that in order to advance up the academic hierarchy (earn Phd, find job, get tenure, etc.) emerging scholars must furnish their dissertation, and their C.V., with the hard currency of academia, namely, significant contributions to social/scientific theory and/or dense empirical work. Publications in internationally renowned peer-reviewed journals (e.g. *Nature* or *Progress in Human Geography*) or in scholarly monographs represent the $1,000 bills of academia. There is immense pressure to stuff as many of these $1,000 bills into one's academic wallet. Even with one of these large bills, a PhD student is far more likely to be successful in a dissertation defense and will be much more 'marketable' when seeking those coveted, but disappearing, tenure-track faculty positions.

Of course, the right selection/defense committee may be very interested in the soft currency that public scholarship might generate: A unique action research project; an Op Ed in a local or national paper; a few publications in less prestigious journals; a documentary video. These $20, $50 and $100 bills might add up? With the right luck, a progressive committee member might recognize an innovative public scholarship outcome as a large bill. An innovative public scholarship mark on your C.V. might even land you a job. Personally, I don't mind rolling the dice from time to time, but when my livelihood depends on it, I'd likely pursue the sure thing. Or would I?

In this article I probe the relationship between public scholarship, graduate education and the social reproduction of professional scholarship in the academy. If the apparent interest in public scholarship is authentic, I argue that the practice of public scholarship needs to be affirmed, supported and rewarded, especially early on in academic careers. This will require a substantial widening of the orthodox understanding

of what is considered to be a "contribution to knowledge" and of what constitutes an "acceptable publication."

6.1 PUBLIC SCHOLARSHIP

Universities have long been imagined as a public good, as a bastion for critical pubic scholarship/pedagogy and as spaces where intellectuals could be supported to enable social justice, democracy and the public interest (Calhoun, 2006). Indeed, the recent attention to public scholarship, as prompted by Burawoy (2005), enters into an enduring conversation about the role of universities, and more generally of intellectuals, in society and social change (Bourdieu and Collier, 1988; Delanty, 2002; Derrida, 2001; Giroux, 2011; Gramsci, 1971; Jacoby, 1989). Public scholarship has waxed and waned but has been iteratively re-invigorated through struggles for economic, racial, gender and social justice. Indeed, public scholars often emerge in response to civic rupture and evolve alongside social movements, for example during the anti-war movements, the civil rights movement or, more recently, the Occupy movement.

The university as a public good has however always sat in a complex tension with the university as serving the, "vested interest of class, business and state" (Thrift, 2009). Universities tend to reflect the historic and cultural moment, and today the hegemonic advance of neoliberal capitalism are penetrating deeply into the academy (Bok, 2009; Castree and Sparke, 2000; Giroux, 2006). Academic research, teaching and resources are increasingly being organized to meet the needs of the private sector and universities themselves are being managed as capitalist business entities where and audit culture of performance management is narrowing the definition of what constitutes the bottom-line

(Deem, 2001). In this context, public interest scholarship is being eroded from "all sides" (Giroux, 2007; Glenn, 2010).

The ongoing de-legitimization and marginalization of critical public scholarship has prompted the recent efforts to defend, reclaim and reassert the university as a public good by legitimizing critical public scholarship. Thus, Burawoy (2005) conceptualized "public sociology" as one type or category of the totality of sociological enterprise. He mapped out the sociological "division of labor" by identifying four ideal types of sociology: professional, policy, public and critical. These species of scholarship, he claims, exist in an antagonistic, yet productive, interdependence.

Public scholarship involves intentionally engaging with multiple publics to support the development of a vibrant civil society, for example, by directly participating in social movements, in activism, in discussions through social media, in writing for the popular press, in public policy debate and in community building projects. *Policy scholarship* occurs when academics serve clients, often through contractual arrangements, to solve particular problems, for example, by acting as academic consultants, directly advising policy-makers or testifying in a court case. *Professional scholarship* is the work typically criticized as locked up in the ivory tower and being disconnected from the concerns of the public, and "supplies true and tested methods, accumulated bodies of knowledge, orienting questions, and conceptual frameworks" (Burawoy, 2005). Burawoy considers professional scholarship to provide the legitimacy and expertise that makes policy scholarship and public scholarship possible. Finally, *Critical scholarship* involves questioning the foundations, norms and the field of power that constitutes professional scholarship.

Traditional public scholarship occurs when scholars promote debate, "within or between publics, although he or she might not actually participate in them" (Burawoy,

2005). Take for example, the contributions of well-known university-based Western intellectuals such as Noam Chomsky, Anthony Giddens, Richard Dawkins or Jarred Diamond, to public debate through popular writing, television, radio, social media or the print media (Mitchell, 2006; Moseley and Teske, 2011). *Organic* public scholarship occurs when scholars work, "in close connection with a visible, thick, active, local and often counter-public" (Burawoy, 2005) through their teaching (Freire, 1970), their research endeavors (Pain, 2003) and in their everyday lives (Cloke, 2004). Organic public research reflects what Creswell (2013) refers to as a transformative research paradigm (Creswell, 2013), which research conducted with the public in deliberate processes of social transformation. Research methods rooted in this paradigm include, for example, participatory action research (Reason and Bradbury, 2001), community-based research (Israel et al., 1998), performative ethnography (Denzin, 2003a) and critical race theory methodology (Solorzano and Yosso, 2002).

The general thrust of Burawoy's manifesto for public scholarship has been generally well-received. Of course, such acts of categorization and definition always involve a contested labor of claiming/coopting some and excluding others (Calhoun, 2005; Glenn, 2007). In response, academics identifying strongly as Professional Scholars warned that the politicized nature of critical public scholarship introduces bias into science. From this perspective, public scholarship gets, "in the way of good professional sociology" by undermining the legitimacy of expert scholarship as a whole (Abbott, 2007; Hausknecht, 2002; Smith-Lovin, 2007). The protectionist response from these professional scholars to the wave of interest in public sociology is epitomized in a website,

"Save Sociology"[10], that was created to discredit public sociology. It would appear that Burawoy's "antagonistic interdependence" between the four types of scholarship is slanted more towards antagonism than interdependence. Clearly, the field of power between these types scholarship is uneven (Glenn, 2007) and the dominant systems of hierarchy, tradition and power privilege Professional scholarship over the other three types.

Public scholarship is marginalized by, "hegemonic discourses around what 'proper' academic research is, and what a 'proper' academic researcher does." (kinpaisby, 2008). The calculative logic of the new managerialism (Deem, 1998) and the academic audit culture (Shore and Wright, 1999) disciplines the endeavors of researchers by standardizing and narrowing the research and teaching outputs that 'count' when measuring quality and productivity (Kitchin and Fuller, 2005). The tangible outcomes and "non-academic" publications that are generated through public scholarship generally fall outside of, or are marginalized by, the measurement criteria for tenure and promotion (ASA Task Force, 2005; Moseley and Teske, 2011; Tanaka and Mooney, 2010). Thus, public scholarship is largely carried out on the side of professional scholarly endeavors (Burawoy, 2005), hidden in the interstices of the academy (Gabriel et al., 2009).

For graduate students, the barriers to carrying out public scholarship are acute, largely because public scholarship falls outside of the reward and evaluation structure built into graduate student education (Noy, 2009), including (and perhaps especially) the dissertation. Indeed, the restrictive conventions of the dissertation genre (Duke and Beck, 1999) work to restrict students from including many of the important contributions that

[10] http://deflem.blogspot.com/2004/07/save.html

result from public scholarship (Davis, 2007; Jacobs, 2008). Examiners who are accustomed to evaluating professional scholarship may challenge the legitimacy of a dissertation based on public scholarship when it does not conform to their exceptions, even when the examiners are themselves ostensibly committed to pubic scholarship (Herr and Anderson, 2005; Noy and Ray, 2012).

This overwhelming emphasis on Professional Scholarship in graduate education suppresses the student impulse for public scholarship. Bauder has observed that, by the time students assume faculty positions that any, "romanticized ideas of being a knowledge-seeking scholar or Gramscian-style intellectual who changes the world may have been dashed by the realities of academic practice" (Bauder, 2006). Graduate education thus reproduces an academy where public scholarship is applauded as a hobby of committed (senior) academics rather than a legitimate and sanctioned academic pursuit. It is during our graduate education where the processes of socialization and professionalization are most intense and when our academic identities and values are shaped through repeated performances of academic labor.

6.1.1 Academic Performance and Performativity

Judith Butler developed the notion of performativity or the idea that identity does not prefigure action but is recursively constituted through our actions, discourses and the words we speak/write (Butler, 1997, 1999). Butler's pioneering work disrupted any fixed and essentialist notion of gender and identity, thus denying that social agents exist with fixed identities prior to their performance. Rather, subjects and their identities are produced through their ongoing performance of wider discourses that circulate and are enacted through social subjects and made durable in texts, materials and processes. Thus,

academic subjects and identities are formed through repetitive academic performances, which represent citations of pre-existing discourse of the academy. Performance, or simultaneous acts of doing/saying, is "subsumed within, and must always be connected to, performativity, to the citational practices which reproduce and subvert discourse, and which at the same time enable and discipline subjects and their performances." (Gregson and Rose, 2000).

Graduate education is thus a process of academic professionalization where students learn what constitutes appropriate academic performance and thus form their own academic identities through repeated performances of academic labor (Gregson and Rose, 2000). This involves an ambivalent process of subjection where students are governed through their networked relations to reproduce proper academic performances, and indeed proper academic selves, regardless of impulses to perform otherwise. Becoming a Professional scholar not only entails gaining new skills and knowledge but is "to embody rules in the course of action and to reproduce those rules in embodied rituals of action" (Butler, 1997). As graduate students iteratively perform professional scholarship, they become increasingly subjectified as a professional scholar. Subjection as a professional is a disciplinary process that involves the marginalization of other identities and performances. However, by conforming to a professional identity, a student is more likely to succeed and thus to acquire, "security, dependence and power" (Hodgson, 2005). Thus, "submission and mastery take place simultaneously, and this paradoxical simultaneity constitutes the ambivalence of subjection" (Butler, 1997).

The subjection of students is enabled through social (e.g. publish or perish) and institutional disciplinary power (e.g. dissertation requirements), which shapes the performance of graduate research and of graduate learning. Graduate students regulate

their own performance both in everyday life and also in preparation for key moments (promotion, tenure) where their academic performances are measured in order to determine their productivity, quality or worth. Disciplinary academic devices including the dissertation, the oral defense, the comprehensive exam, mentorship, and peer review serve to prescribe and police, for example, what a "significant contribution" and what "publication" constitute. Of course, who controls the field of judgment is crucial, and students/academics will discipline their performances to meet the perceived expectations of known internal examiners and peers as well as unknown external examiners, peer reviewers, grant adjudicators, hiring committees, etc.

But subjection is ambivalent, always unfinished and always incomplete. Because the scholarly subject is made and remade with each iterative performance, there are always possibilities for disruption and for subversion and to undermine the "force of normalization" (Butler, 1997). J.K. Gibson-Graham (2008), reflecting on how their own professionalization undermined their ability to perform public scholarship, advocate for disrupting professional academic performances to enable the formation of new academic subjects. They argue that professional social scientists are trained to perform scholarship as "discerning, detached and critical," encouraging theoretical orientations that are, "tinged with skepticism and negativity, not a particularly nurturing environment" (618) for interactions with public(s). Gibson-Graham suggest that academics need to undo their professionalization; perhaps through a process of de-professionalization or re-professionalization.

De/re-professionalization sounds appealing to me. But, an even more appealing approach would be to also focus on how graduate education be transformed so that that it cultures academic subjects capable of performing effective public scholarship in the first

place. If the dissertation was crafted to explicitly demonstrate poly-scholarly performance or to encourage hybrid and experimental scholarly performances, could public scholarship gain resonance and legitimacy? Could the resulting graduate research simultaneously generate products and processes that have a much wider and deeper impact in the academy and beyond? Can a dissertation be structured so that it enables students to develop an array of skills and knowledge that would better enable them to perform a diverse academic labor? Do students have to wait for the security of a tenured faculty position before carrying out such work? In this paper, I critically examine my own struggle as a PhD student predisposed towards public scholarship, yet subjected to the demands of the professional academy. I script my own journey navigating a (paradoxically and ambivalently) supportive-restrictive pathway through graduate education and reflect on the resulting academic subject that I am today.

6.2 METHODOLOGY – PERFORMATIVE AUTOETHNOGRAPHY

In order to place my own experience in conversation with the processes of academic professionalization I drew on performance autoethnography (Denzin, 2003a). Autoethnography involves a process of self-critique and self-narrative to better understand everyday life and to interpret, "culture through the self-reflections and cultural refractions of identity" (Spry, 2001). Through autoethnography, the researcher explicitly draws on his/her own positionality to experience within the wider social and cultural context. Thus, autoethnography denies the author a detached and neutral authorial position who must then, "step out from behind the curtain and reveal the individual at the controls of academic-Oz" (Spry, 2001).

Denzin (2003) argues that performative autoethnography should shape and give "meaning to lived experience within specific historical moments" (p. 266) in order to move readers emotionally and critically and, ideally, to motivate action. The honest self-reflexive critique of ones own experience is intended to inspire readers to reflect critically upon their own life experience, their constructions of self, and their interactions with others (Ellis and Bochner, 1996). Performative autoethnography is thus driven by the impulse to contribute to positive social change and itself reflects a performance of public scholarship. The resulting performative texts are not neutral representations of reality but are tools of critical pedagogy (Denzin, 2003b).

Performance ethnography often uses creative and eclectic representations or performances where, "introspection, dialogue, or narration" are used to develop social theory (Ellis, 2004). By using diverse modes of academic writing and representation, performance writing can reach new audiences and engender different ways of understanding (Gergen and Gergen, 2002). Although, "at odds with the clear scholarly preference for an impersonal, nonemotional, unrhetorically charming, idiom of representation" (Goodall, H., 2008 cited in: Spry, 2001), performance writing can open new opportunities for learning, for critical pedagogy and for social change.

In the following script, I present my experience as a conversation between three "Scholarly Colins". Despite this stylistic and pedagogical presentation, I am not implying that these are separate and mutually exclusive scholarly identities. Nor am I implying that these identities exist outside of their hybrid performance (as per Butler). Rather, the divide that I construct between these distinct scholarly Colins are social constructions, themselves derived from my reading of the literature (as per Burawoy).

6.3 Case Study: Colin's Academic Personalities and The Things that Matter but Don't Count

Picture this. Not one Colin-the-scholar but multiple scholarly personalities, identities, roles and performances. Multiple Scholarly Colins.

In this story, three Scholarly Colins are particularly relevant, these reflecting Burawoy's (2005) typology: Colin the Public Scholar (Public Colin), Colin the Professional Scholar (Professional Colin) and Colin the Critical Scholar (Critical Colin) (Figure 6.1).

Figure 6.1 - The multiple scholarly Colins. (Left). 2006. Colin the Public Scholar, wearing his favorite plaid shirt and hat in a field in rural Manitoba. (Middle) 2007. Colin the Professional Scholar, wearing a button up shirt, hair combed, explaining his academic poster to Eva, a student 'colleague', both of us performing our professional scholar selves in a stodgy poster session at the "PrioNet annual Scientific Meeting". (Right) 2013. Colin the Critical Scholar. Tired. Sitting in a coffee shop. It is late. Wearing a coffee stained sweater. Critical Colin is also trying to ignore the other Colins and the other more rational/realistic allies in his life telling him that Critical Colin might need to wait to write this stuff until after we defend our thesis and have our PhD.

Colin the Policy scholar[11], or indeed possibly other scholarly Colins, may be present, but at this point, they're hard to make out. Perhaps they are lurking in some deep place within me waiting to leap out and assert themselves[12]?

[11] Indeed, as I put the finishing touches on this chapter, I am just now establishing a relationship with a few key bureaucrats in Manitoba Agriculture, Food and Rural Development to (hopefully) shape public policy (http://www.winnipegfreepress.com/local/farmers-seek-answers-after-pilot-mound-meat-seizure-228441531.html)

Imagine these three scholarly selves, sometimes confused, sometimes talking and working with each other, sometimes arguing, sometimes agreeing, but almost always resulting in hybrid embodied performances in the different spaces of academia.

I have performed each of these versions of my scholarly self over the past six years of my graduate education. And they are indeed performances. In fact, as you may discern from figure 6.1, these Colins even dress differently in different academic spaces-time. In the field (both in the literal "farmers fields" where I do much of my research and also in "the field" in the academic sense), I intentionally avoid wearing pretentious professional attire – unless, of course, I am interviewing a professional.

Luckily for me, I regularly wear plaid so my wardrobe fits the stereotypical rural attire in the field(s)? Too much so maybe. As it turns out that many of the farmers I interview don't wear plaid and, in fact, sport a diversity of logo'd shirts given to them by beer or agri-business companies. I wonder if any of the farmers I work with ever think I'm dressing down - an urban poser wearing my best 'farm clothes'. I digress.

The point is, different academic spaces encourage a different scholarly performance: a different way to act, way to talk, and way to write. These spaces are produced in a way that suggests what is, and is not, proper scholarly performance. But it is never black and white (mostly grey) and we have different degrees of room to maneuver in different spaces and indeed to transgress the boundaries that these spaces impose. Our agency reflects both our own evolving inclinations and convictions in tension with the

[12] Certainly, other Colins are at play– Colin the White, Heterosexual, Middle-class man, for instance. Deconstructing these performances would surely yield insightful understandings of how academic performances intersect with gender, class and race – however, this is tangential to the task at hand.

disciplinary power of the institution and social relations that shape our selves and shape these spaces.

So, let's apply this to my current situation, namely, my graduate education, my dissertation, my dissertation defense and my publication plans. I'm not so concerned about what I wear to the defense – although I'm guessing you'll see Colin the (pretentious) Professional Scholar. There will likely be a handful of farmers and community members at my defense who may be surprised to see that I do clean up fairly well. In that moment though, their opinion won't matter, since they have zero say in whether I pass my dissertation – unless the departmental chair makes an exception and lets the public ask me a question.

Before I transferred from my masters program to my PhD, I had a community member on my advisory Committee. Jo-Lene Gardiner is a farmer, activist and community organizer who co-authored one of my chapters and who continues to contribute substantially to my intellectual development. According to the university regulations, I had to cut her off of my committee – you need to have 'real' creds to advise a student. That was slightly awkward. Thankfully, she continues to be a friend and supporter. Again, I digress.

When I first started my program, Public Colin dominated over the much less experienced and underdeveloped Professional Colin.

Usually, a PhD program approximates this chronological format:

Coursework - candidacy exam - identify research problem - literature review - develop research proposal - defend research proposal - conduct research - write up thesis - defend thesis - publish.

Neat. Tidy. Linear.

I doubt it ever goes quite like that, but generally, the idea is: develop your scholarly self then go out and do professional scholarly research – if you want to learn to be a public scholar, do it on your own time.

My project was far from linear where writing, research, coursework, research problem identification and reviewing the literature occurred iteratively in response to the problems and needs identified in successive rounds of inquiry. I wrote my candidacy exam after (most of) my data was collected and finished my last course in the final year of my program – I/we broke all of the conventions.

In hindsight, the conventional program structure might have saved me some confusion, some grief and some anger. It might have avoided that long bout of quasi-depression when I really dove into academic writing for the first time. I might still have a full head of hair. But I certainly wouldn't be the same scholar that I am today.

From the first day of my program, I dove into the deep end of a participatory action research project that embodied organic public scholarship (Burawoy, 2005; Fuller and Askins, 2010). In fact, three months prior to the official start of my graduate program, the project began (see: Chapters 4 and 5) – I helped to start and became a core organizer in the development of the Harvest Moon Local Food Initiative. Since then, I have worked for six years alongside and with a group of farmers to organize, manage and analyze the development of a cooperative 'civic food network' (Renting et al., 2012) in the Canadian Prairies. Immediately, without any 'academic training', I was able to put to use all the communication and organizational skills I had developed over my adult years as a student organizer-leader-programmer and in my work in the non-profit world.

Great. Colin the Public Scholar was quick out of the gate.

But…In my first attempt at a peer-reviewed publication a year into the project (see: Anderson and McLachlan, 2012 and Chapter 3 – the result of a very trying and mostly self-defeating process) I realized that I had to locate our action research project in relation to professional scholarly theory. I quickly realized that Public Colin was ill prepared for this type of "professional" academic labor. Public Colin had taken up a lot of space and Professional Colin had little opportunity to rehearse, to develop or to perform. Yet, it was time to call on him. And it wasn't pretty.

In my second academic publishing endeavor (see: chapter 4), we wrote up and submitted the Harvest Moon Local Food Initiative project as a case study to an internationally renowned, peer reviewed journal. Using the principles of Participatory Action Research (Kemmis, 2007; Reason and Bradbury, 2001), I worked diligently to co-analyze and co-author the paper with two farmer colleagues and my advisor. We drew from five years of deeply engaged action research, interviews, meeting minutes and experience. We all thought the paper said something important and was a fair, but critical, representation of our story.

We sent it to all of the thirteen other farmers who were in the story to get their feedback. I followed up by phone with each of them and they all agreed – some minor problems but generally it was great. We revised the manuscript based on their critical feedback, submitted it, and were hopefully optimistic. The response from the journal was this:

> *I have read it carefully and my conclusion is that it is probably not best suited to the Journal… Papers in the Journal…need to critically engage with the rural social science literature and make a significant contribution to advancing that literature which is of interest to our international and inter-disciplinary readership. Whilst your paper is clearly a rigorous piece of research, I feel that its focus is not appropriate for the Journal. – Editor, Scholarly Journal 1*

Public Colin was surprised and crushed and, emotionally, it knocked me down a few notches. I think I've recovered.

Now, Professional Colin is maturing and he understands that if Public Colin wants to make it as an academic, he is going to have to do a better job of playing the professional scholarship game, just as that editor needs to play the game, regardless of his interest in public scholarship[13]. And, Critical Colin is now thinking reflexively: I see, there are different spaces in academia, and each of them is a field of power and discipline. To be effective in these different spaces requires a different academic performance, a different species of academic labor. I won't be able to change the rules of the game…at least not on my own… but I wonder how much I can bend them.

For almost two years, Professional Colin, fretting that he needs to beef up his C.V. if he ever wanted to get a job, worked to translate that article into a passable 'academic' publication. I ended up submitting the revised paper to a journal that promotes 'accessible scholarship' and that targets public scholars and scholarly publics. To Professional Colin and Public Colin, this seemed like a good compromise. I submitted it, and the editor responded the same day indicating that it looked great, but was too long,

> *The case study is absolute GOLD. I find this [paper] accessible, and spot on topically… I think this should do well in the review if you can avoid the TMI [too much information] problem – Editor, Scholarly Journal 2.*

I quickly revised it, cutting out the fluff, and re-submitted. Ironically, the reviewers for the journal indicated that the article was too "academic" in style and that I

[13] I looked up this editor and he appeared to be engaged in various forms of public scholarship, which he had translated into both public-oriented publications and professional-oriented publications.

would need to revise the writing to better reflect the journal's commitment to 'accessible scholarship'. After a re-write, the article was accepted for publication.

Professional Colin has since been stumbling along, trying to catch up. Learning about theory, academic writing, academic language, teaching, and so on. Over time, Professional Colin grew stronger and started to overcome Public Colin. This was, indirectly pointed out to me by a friend and collaborator. I was writing my first op ed for a major newspaper (Anderson, 2013). The piece would draw from my dissertation research to point out, to the public(s), how the Manitoba government was marginalizing small-scale family farmers and processors through one-size-fits all food safety regulations and policy. Unsure of myself, I asked a handful of colleagues to provide feedback. Adrienne, who was a public relations professional in a former life, responded,

> *…Be sure to keep any language…accessible to the average CONSUMER/ PERSON - try to avoid terms like 'regulatory framework'. etc. Stick to motherhood and apple pie words (words that warm the heart). Think Family farm, Think wholesome. Think pastured. - Adrienne Percy, personal communication*

She also spent a half-hour working through the op ed, line-by-line with me, reshaping my slightly boring prose and over-inflated language to be more compelling and engaging for the public(s). I was reminded of Katherine Mitchel' scathing (self) critique of professional geographers: "With few exceptions we write for each other and we do it with dense, turgid and usually mind-numbingly boring prose" (Mitchell, 2006). Is this what I am in danger of becoming? Adrienne's feedback was an incredibly valuable learning experience for Public Colin and a reminder to Professional Colin that he may not be as useful as he was beginning to think he was – at least not in these public spaces.

Now, picture this: Colin the Professional Scholar is now called on, again, to (finally) write up his dissertation. Picture him sitting down and writing an outline and sketching out how to convincingly argue that the work we've done over the last six years makes a significant contribution to professional scholarship. That is, a contribution to social theory. Professional Colin starts to very selectively pick out the neat and tidy stories to make a neat and tidy argument and to create a neat and tidy thesis structure (which he constructs by modeling after other dissertations written according to the conventions of professional scholarship).

Feeling pretty good about himself, Professional Colin looks up and glances at the mirror. Who should he find looking back at him, but Public Colin, horrified, jaw to the ground yelling,

> *"What the hell are you doing you self-serving egotistical bastard? What about all of the other wonderful, important stories and outcomes from the past six years? What about all of the work put in by the many co-researchers that we have worked with along the way? You are claiming these ideas as your own and leaving out the important parts? Who do you think you are?"*

Behind him, Critical Colin is smugly nodding his head, smiling, rubbing his hands together and thinking opportunistically,

> *"What a wonderful opportunity to write a critical auto-ethnographic paper!"*

The academic vulture!

Taking a breath, each of the three Colins cool down. They each ponder the nature of this confrontation and wonder if they can't all get what they want. They look at each other and simultaneously remark, "Why not?"

Thus, as an academic who identifies strongly with the impulses for public scholarship, I decided to experiment with the dissertation as a space to perform all three of these scholarly impulses – Critical, Public and Professional. To do justice to the people

who enabled my research and to make claims that our work and the multiple publications, presentations and real world outcomes from our scholarly labor should, in fact, count.

6.4 Diverse Contributors, Diverse Outcomes

My dissertation represents a six-year bricolage of public/critical/professional scholarship, rooted in an action research framework and transformative research paradigm. Generally, the research examined how farm households and communities in Canada and the USA adapted to global environmental and socio-political change. I focused on alternative geographies of food, exploring the politics, tensions and power dynamics that run through and define alternative food networks (e.g. direct farm marketing, farmers markets), cooperatives and the social economy. At the heart of my inquiry was a six-year-long, community-based, participatory action research project that involved continuous rounds of action and reflection in the development of a farmer-driven civic food network in southern Manitoba on the Canadian Prairies.

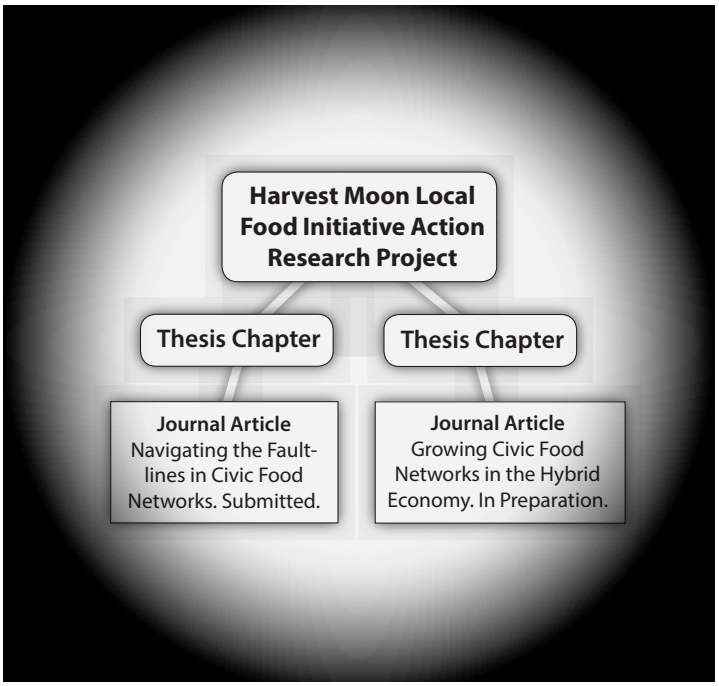

Figure 6.2 - Thesis structure constructed by Professional Colin. The examiners and other readers may be able to sense that there is something important in the darkness beyond the light of the flashlight, yet it is impossible to see into the darkness.

This work, typically, would be written up as discrete chapters in a professional scholar's dissertation, focusing in on material that contributes to social theory. Thus, if you mapped out where my dissertation was heading according to Professional Colin, it would indicate a delimited research project through two or more 'data chapters', which may or may not be published (figure 6.2), bookended by a less important but still required introduction and conclusion. This structure would require that I de-emphasize, or more likely largely erase, any processes, findings and ideas that undermine or clutter the parsimonious empirical and theoretical story. The critical public research processes and outcomes that have defined me, and this collective work, have no place in the professional scholar's dissertation. A reader or examiner may have some sense that there was more going on than what is reported in the chapters of a professional dissertation, but these stories are buried in a sea of dense theoretical and empirical writing or in a passing mention as a peripheral post-script or mention in the conclusion chapter.

In his efforts to construct a professional scholar's dissertation, Professional Colin has taken a flashlight and shined it on a very select story (figure 6.2), while the hard work of Public Colin and all of his public collaborators are left in the dark.

In an act of defiance, Public Colin undermines Professional Colin by turning on the lights (figure 6.3) and revealing that, in fact, much of the work being claimed by Professional Colin was supported by a wide range of collaborators, contributors and authors. These included a diversity of community members (farmers, community organizers, activists, etc.), students (undergraduate and graduate) and academics. Public and Professional Colin have both played a role in facilitating and authoring many of these outcomes, yet my agency, both as a public and a professional scholar, was a relational outcome of the much wider diversity of actors that enabled this scholarship.

We are now able to also see the much wider diversity of outcomes that reflect both traditional- (Moseley and Teske, 2011) and organic- (Fuller and Askins, 2010; Hawkins et al., 2011) public scholarship outcomes, including alternative publication formats and venues (e.g. videos, op eds, community presentations) and pragmatic outcomes such as the establishment of a cooperative (Harvest Moon Local Food Initiative), an advocacy and campaign group (Real Manitoba Food Fight) and a suite of popular education programs (Harvest Moon Learning Centre, InFARMation). The hybrid scholarship pursued as a part of this PhD project has resulted in a diversity of outcomes that are now circulating through both academic and community spaces, and indeed transgress these spaces in important ways.

Public Colin has now asserted himself and demanded that Professional Colin make space in our dissertation to demonstrate and recognize the full diversity of contributors and outcomes of this hybrid research project. In fact, two entire chapters have now been carved out to demonstrate these outcomes and to demonstrate how the public and professional outcomes fold into and unfold out of one another in proliferative cycles of participatory action research (chapter 4). Public Colin demands that these be recognized and evaluated, however difficult they are to measure.

6.5 Construction of This Paper: Critical Colin Joins the Fray

This draft of the paper, like most, reads much differently at the end than it did at the beginning. The original motivation and purpose for this paper was based on a very simple idea: I wanted to insert my public scholarship outcomes/publications in to my dissertation as a stand-alone chapter. However, the act of copying and pasting these blog posts, op eds and videos into my dissertation (chapter 6) prompted a flurry of critical

questions and reflective analysis of my graduate student experience. By disrupting the dichotomy between Public Colin and Professional Colin, Critical Colin was asserting himself and it turns out he had much to say. Indeed, this simple move resulted in the generation of this chapter, as well as chapter 4.

Two colleagues provided constructive feedback on a late draft of this paper. They both reflected on the contradictions and tensions that were evident throughout the very performance of the paper itself. Troy Stozek observed, *"In one way it is almost a shame that you conformed as much as you did to the jargon-filled style that Professional Colin would no doubt have advocated for. But at the same time, that you ended with Critical Colin and the guts were best represented by Public Colin."* Jennifer Brady encouraged me to ask myself, *"Are you performing a certain Colin in this article? Why?"*

The first rough draft of that article was almost exclusively a performance of Public Colin. Yet, as I revised and edited the successive drafts, it became more and more a performance of Professional and Critical Colin. As I wrote this chapter, my initial impulse to assert Public Colin was continually undermined by my professional training and by my intended audience. As Public Colin wrote, his words were edited and contextualized by Professional Colin who felt the need to theorize and "jargon-ize" Public Colin's narratives. Critical Colin was inclined to write in a critique of both Public Colin's and Professional Colin's writing.

However, the influence of Professional Colin on this paper is not a simple matter of domination but was also intentional and strategic. It, in part, reflected our own sense of what would be best received by the examiners who would evaluate the dissertation. It also reflects a recognition by all three Colins that we need to generate publishable papers that we can mark in our CV to enable our continued hybrid academic work. My intended

audience is professional academics (faculty members, students, etc.), suggesting that the language and form of professional scholarship may be the most effective delivery of my message. This is a political move and an effort to communicate these messages to those working within the academy and a hope to move others to carve out space within Universities to better enable public scholarship. It would seem that Public Colin and Critical Colin might be most effective in this historic moment when they work closely with, and through, Professional Colin to revalorize and to creatively animate public scholarship in the professional academy.

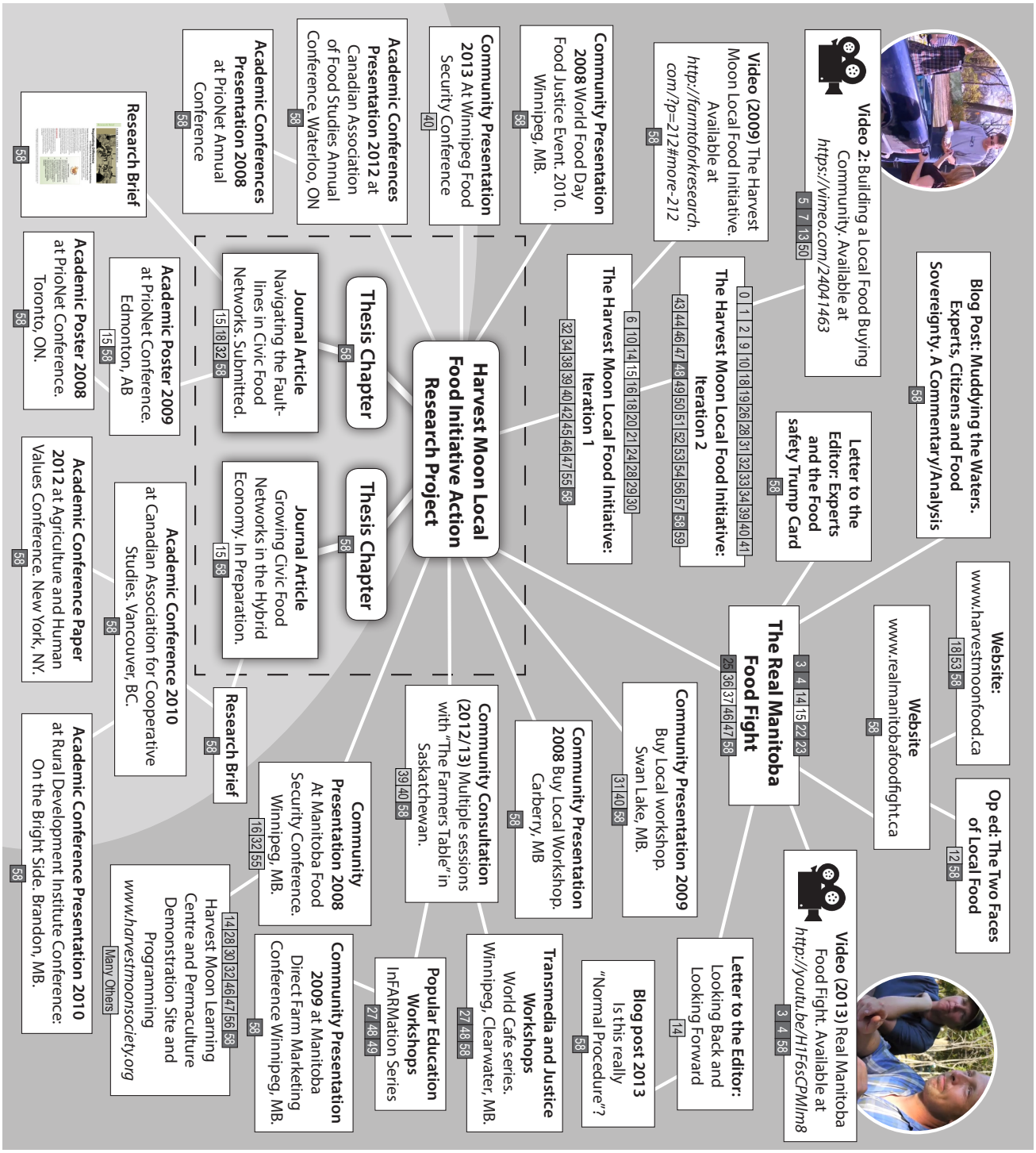

Figure 6.3 - Thesis structure and outcomes constructed by Public Colin

6.6 Discussion

6.6.1 The Temporality of Graduate Education

The agency of academics to engage in critical public scholarship varies over time. The meta-narrative of the neoliberal(izing) academy suggests that, from a macro-historical perspective, the space to perform public and critical scholarship is shrinking, and that policy and professional scholarship are colonizing the academic landscape. The agency of a scholar to engage in the various types of scholarship also varies over the duration of a career. Students and non-tenured faculty have the least academic freedom (Purcell, 2007), where they are caught up in a rat race to prove themselves as professional scholars, to publish social theory in academic journals, to pass a dissertation (judged most often based on their contribution as a professional scholar) and to secure tenure. Pursuing endeavors that do not count when competing for the shrinking number of secure academic jobs is a hard sell.

The dominant norm in graduate education is for a student to follow a very rigid structure starting with coursework, candidacy exam, research proposal, research, writing, defense and then publication. This structure is based on the assumption that the capacity for a student to do good research and to make a contribution is dependent on first being socialized as a professional scholar. For example Boote remarks, "A thorough, sophisticated literature review is the foundation and inspiration for substantial, useful research" (Boote and Beile, 2005). This reflects the contention that good public scholarship necessarily unfolds from good professional scholarship and strong theory (Burawoy, 2005). But can good professional scholarship unfold from public scholarship? Perhaps it should? Professional training that focuses exclusively on professional

scholarship arguably cultivates academic subjects who are ill-suited to carryout public scholarship (Gibson-Graham, 2008).

My own PhD trajectory broke from these professional scholarly conventions. My program was non-linear and, if it followed any path, I developed, first, as a public scholar and then as a professional scholar. Although this provided an incredible opportunity to engage in critical public scholarship, the transition to writing a dissertation evaluated based exclusively on professional scholarly criteria was very challenging. I can't help but wonder if this unconventional structure would have been considered normal and institutionalized that my experience would have been better. It begs the question of whether or not there are ways that we can flexibly structure graduate programs to enable students to simultaneously develop competence and interest in the diverse scholarly pursuits (public, critical, policy, public)?

6.6.2 The Spatiality of Graduate Education

Our ability to engage in critical public scholarship also varies greatly across the spaces of academia. The practice of public scholarship has been suggested to vary between nations and between departments but generally, scholarship is exceedingly slanted towards professional scholarship (McLaughlin and Turcotte, 2007). Drawing from my own experience, it was clear that one's agency in performing diverse academic labor varies across the different micro-spaces of academic life. This dissertation draft itself provides a snapshot that can be used to trace the spatiality of my diverse scholarly performances. The document represents a performance of all of professional, public and critical scholarship, yet, the extent to which it does so varies between and within the chapters.

If I sat down with my academic selves and asked them to rank my dissertation chapters in terms of their 'contribution to knowledge', they would have very different rankings and different rationales. Why don't I do that… You'll see that each Colin asked himself different questions (Table 6.1) and that each of the Colins valuation of the different chapters was substantially different (Table 6.2). The narratives I have constructed and captured within each of the different chapters are each representations of embodied performances of the different scholarly Colins. At times my impulses for public scholarship dominated over the others (table 6.2: chapter 3,4). At others, Professional Colin was dominant (table 6.2: chapter 2) or Critical Colin (Table 6.2: chapter 5). But, for the most part each chapter represented a hybrid performance of these (and likely other) Colins.

Question	**Professional Colin**	**Public Colin**	**Critical Colin**
Questions used to determine value of contributions	How can this chapter make a contribution to the theoretical and methodological body of knowledge? What academic publishing outlet will this be printed in? How many professional academics will read it, learn from it and cite it?	What difference can this knowledge make in the public realm? Outside of other academics, who will read this 'product', and what can they do with it? Did the process of generating this chapter make a difference in the public realm?	Does this chapter allow us to better understand how academia works? Does it provide insight into how academic labor and the academic institution can be changed to better support the public good?

Table 6.1 - Questions used by the Multiple Scholarly Colins to evaluate the chapters of his/our dissertation

Chapter		**Professional Colin**	**Public Colin**	**Critical Colin**
1	Introduction	7	5	4
2	Mixed methods BSE study	1	6	7
3	HMLFI case study	4	1	3
4	Real MB Food Fight	6	2	6
5	Dissecting the Dissertation	3	4	1
6	Coloring outside the lines	2	3	2
7	Conclusion	5	7	5

Table 6.2 - Rankings by the multiple scholarly Colins of most valuable chapters in dissertation. 1= highest, 9 = lowest.

Each dissertation chapter has a different spatial story. First, the chapters could each be traced back through time to identify the different types of academic labor that went into the research and in different academic spaces. Once these academic performances and the arguments, politics and narratives are represented in writing, they are made more durable and capable of being extended through space and time (Latour, 1991). The dissertation as a physical product will likely be durable over time, but will have little life beyond the dusty shelves of the UofManitoba library. Perhaps a few downloads from the University's electronic repository. More promising are any further-published versions of the different chapters, videos, explanations and stories in the dissertation. These will ideally reach further in time and into different types of spaces and themselves perform different types of academic labor to different pragmatic and political effect.

For example, the academic labor that led to writing of my first empirical chapter (chapter 3) was largely conducted in the professional spaces of the University, working behind a computer performing scholarship through statistical analysis, qualitative data analysis and grounded theory. This chapter was published in early 2012 (Anderson and McLachlan, 2012), and is now circulating in the professional spaces of academia in a top ranked peer-reviewed journal. This academic performance went through a peer review process to ensure it was performed in a manner appropriate to the professional space that it now resides in. It is now locked safely in the spaces of the ivory tower, inaccessible both

in terms of the language[14] and locked behind the costly licenses of journal publishers and restricted institutional library access. Thus, chapter 3 primarily involved a performance of professional scholarship both in terms of the research process, how it reads on paper, and in terms of the spaces that the products of the research are now circulating through.

The action research project documented in Chapter 4 represents a much different spatial story. The research that led to this chapter occurred almost entirely in the public spaces – out in "the field", working with farmers, community organizers and activists in engaged action research. The chapter is submitted for publication in a quasi-academic journal that has a readership that includes practitioners and public scholars. This work also resulted in a wide variety of outputs that circulate through public spaces and are widely accessible, these including videos, research briefs, websites, blog posts and op eds. Thus the products of this research served to mobilize knowledge such that it reached the consciousness of thousands of individuals and, importantly, was re-applied by the community partners in a way that had had immediate tangible effect (Anderson, In Review).

I would be remiss if I didn't recognize the academic spaces and performances available to me as a white, native English speaking, 'middle class', heterosexual man are different than those available to many graduate students. The critique offered through my autoethnographical account is refracted through my positionality. All species of scholarship are deeply gendered, classed, radicalized and westernized, as is the socialization and professionalization processes (Callahan, 2008; Glenn, 2007; Gonzalez,

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[14] I should confess (or perhaps celebrate?), that this article is written in relatively accessible, jargon-free language. At this early point in my academic socialization/ professionalization, I had not picked up as much jargon as I use now.

2006; Hooks, 1994; Noy and Ray, 2012; Offstein et al., 2004; Sallee, 2011; Solorzano, 1998; Taylor and Antony, 2000). I have no doubt that my academic performances would have been drastically different across the time-space of my graduate education, for example, if I was a woman or an indigenous student. My experience of graduate school was far from the stories of exploitation and struggle that befall many graduate students (Nelson, 1997). Indeed, I have the privilege of substantial public funding and the cushion of a middle-class upbringing and family support network. My capacity to experiment and to take risks with critical public scholarship would have been substantially diminished without these privileges.

6.7 Wrapping Up – Graduate Education and Critical Pedagogy

> *Education either functions as an instrument which is used to facilitate integration of the younger generation into the logic of the present system and bring about conformity or it becomes the practice of freedom, the means by which men and women deal critically and creatively with reality and discover how to participate in the transformation of their world. – Paulo Freire, Pedagogy of the Oppressed (Freire, 1970)*

Graduate education is not a benign learning process but a highly politicized mechanism of socialization and professionalization, specifically designed to reproduce the academy according to the values and practices embedded in its implicit and explicit pedagogical technologies. The performances of mentoring, coursework, comprehensive examinations, research and writing are not neutral but have normative effects, shaping what students hold to be legitimate scholarship and worthy academic labor. The dissertation represents the quintessential tool to regulate the scholarly performance of graduate students and predominantly serves to reproduce the norms, beliefs, skills, and practices of *professional scholarship*. That is, graduate education focuses on transforming students, who are at one point highly capable of, and open to, diverse scholarly

performances, specifically into faculty that privilege Professional Scholarship (Bauder, 2006; Gardner, 2008; Mendoza, 2007; Roth and Bowen, 2001).

The requirements of my own graduate program are typical and prescribe the following evaluation criteria for PhD dissertations in that it, "*must constitute a distinct contribution to knowledge in the major field of study and the material must be of sufficient merit to be, in the judgment of the examiners, acceptable for publication.*" One could argue that the discourses of 'contributions' and 'publications' are multiple and ambiguous, leaving space for interpretation and academic freedom. However, in the context of the professional scholarly academy, these ambiguous discourses produce specific effects. The normative power of Professional Scholarship requires that 'contributions' entail the development of scientific or social theory, and that 'publication' is performed in peer-reviewed journals or in scholarly monographs. The dissertation, and its evaluation by professional scholars, acts as a technology of professionalization serving to reproduce academic subjects with narrow values around what constitutes productivity, academic contributions and legitimate academic labor.

Students inclined towards critical public scholarship, often supported by sympathetic advisors, peers and public(s) can and do subvert the normalizing professionalization processes embedded in the dissertation. Indeed, my own experience has been one of simultaneous subjection to, and subversion of, the pressures to conform as a professional scholar. My supportive advisor and my dissertation committee encouraged the development of Colin the Public Scholar – but usually with the caveat that I should be careful to simultaneously develop as a professional scholar or risk my career. A student can color outside of the lines, but not too far. Interactions with the public(s) continually suggested and enabled a performance of public scholarship that

subverted my professionalization. Wayne Robert's quote that opened this chapter reflects the many implicit and explicit statements by non-academic collaborators that have forced me to question the relevance of my professional scholarly performances and writing. These interactions with non-academics reinforced my impulses towards public scholarship. This de/re-professionalization, however, has been as ambivalent as my professionalization. It has simultaneously empowered me to creatively work the system to 'make a difference' in the public sphere, while also risking my 'marketability' as a Professional Scholar which, in turn, risks my potential to pursue public scholarship within the academy. Indeed, students and untenured faculty pursue public scholarship at their own risk from a largely un-sanctioned and vulnerable position (Noy, 2009; Wilson, 2007).

A vibrant critical public scholarship in the academy will require more specificity in the discourse of evaluation and measurements of quality such that the '*contributions*' and '*publications*' that arise from public scholarship are explicitly recognized. The call for a renewed public scholarship must directly target the normative emphasis on professional scholarly evaluation in graduate education. This emphasis presumably filters out emerging intellectuals who have the potential to make substantial contributions to the academy and to the public. Progressive students are likely to become disillusioned by the "hyper-professionalization" of their discipline (Noy, 2009) where public scholarship is considered by some to be, "antithetical to academic success" (Moore, 2004), thus limiting their capacity to serve the public interest from within the academy (Bauder, 2006). These

students are liable to abandon universities to pursue their impulses towards public scholarship in more conducive institutions, organizations and movements (Noy, 2007)[15]. If a critical public scholarship is to be taken seriously, then it is not only acceptable, but necessary, for graduate students to demonstrate, and to be evaluated on, their ability to productively engage with the public, to mobilize knowledge, and to have an impact beyond the pages of the dissertation and beyond the academy[16]. The dissertation and its defense act as critical spaces to perform diverse scholarly contributions, to develop alternative modes of writing and to develop values around what constitutes high impact publications. A dissertation should allow for students to demonstrate diverse performances of scholarship: public, policy, professional and critical.

The dissertation has been critiqued as a genre that is doomed to have a small audience and the length and format of a dissertation make it impractical for most readers (Duke and Beck, 1999). It has been suggested that alternative formats would allow for the dissertation to better represent and evaluate the diverse forms of academic labor and to promote outcomes that would have greater reach (Duke and Beck, 1999). Therefore, alternative dissertation formats might include opportunities to include creative writing,

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[15] For example, two bright and talented students in my cohort opted out of academic careers after respectively completing their Masters and PhD programs. They were disillusioned with professional scholarship and sought to pursue their agenda outside of the narrow confines of the academy. Disillusionment with and opting out of the academy are perpetual themes in my conversations with peers attempting public scholarship focused dissertations.

[16] The American Sociological Association published guidelines for personnel reviews to better reflect public sociology through including evaluation of, "research reports completed for, and used by, non-academic organizations; evaluation research instruments and outcomes; documentation of involvement in community-based research and educational activities; transcripts of public testimony at government policy hearings; published op-ed columns and other commentary in media outlets; or visual media substantially utilizing a candidate's research." ASA Task Force, 2007. Standards of public sociology: Guidelines for use by academic departments in personnel reviews, American Sociological Association Task Force on Institutionalizing Public Sociologies. http://www.luc.edu/media/lucedu/curl/pdfs/pubsocstandards20090402.pdf

policy commentary, video, photographs, performative writing and autoethnography (Duke and Beck, 1999; Fisher and Phelps, 2006; Herr and Anderson, 2005; Jacobs, 2008). Duke suggested that the different spaces within a dissertation could involve different formats, reflecting a variety of forms of representation geared towards a range of audiences (Duke and Beck, 1999). This would push students to target their writing, and thus order their research activities, towards different scholarly orientations and further allow examining committees to evaluate the full range of scholarly performances.

The political opportunities for widespread institutional reform are bleak in this historic moment (Giroux, 2006), yet there are always opportunities to work from the interstices of the institution to further open space for critical public scholarship (Greenwood, 2012). We can begin in our own programs, in our own relationships with students and in our own universities by challenging the dominant discourses, rules and disciplinary technologies that stifle impulses towards public scholarship. We must re-examine ourselves, and our own academic performances, and to deconstruct our own subjectification to the academic and political-economic systems of discipline and power. This process of reflexivity and of re-subjectification must be both personal and political and will thus require both individual and collective action. To culture a public scholarship will require that we engage in a critical pedagogy where students, faculty, administrators and the public engage in a process of mutual learning and change; A challenging, yet entirely necessary project.

6.8 THE STRUGGLE CONTINUES…

Despite the distinct scholarly Colins imagined and constructed in this paper, these separate identities do not exist and are not fixed – they are figments of my scholarly

imagination, reflecting the impulses that inform my scholarly performance. The source of these impulses themselves can be deconstructed and reflect a tension between my own creativity with the disciplinary power of a much wider relational network of actors and discourses. Subjectification and professionalization are ambivalently empowering and disempowering and fraught with discipline, power and, most importantly, the opportunity for subversion and self-creation.

Despite being figments of my imagination, I find these scripted conversations between these distinct academic selves as a useful tool to better-understand academic performance and performativity. Indeed, as I wrap up this paper, my academic selves are still loudly arguing – or perhaps talking past each other. Critical Colin is saying, I can' wait to critique the critique that I receive in response to this chapter – what interesting things will it reveal about academia? Professional Colin is wondering if this is defensible. Will it earn me my creds – PhD? Is this publishable and where will it have the highest measurable impact? Will it land me a job? Public Colin, who I tend to relate to best of all, is asking what kind of difference these ideas might make in the "real world" and when are we going to get the hell out there and do something about it.

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7 Concluding-continuing

7.1 Concluding

Discontent with the profound crisis of state and market led governance of the dominant food system is crystalizing into a range of civil society-led efforts to build more resilient and socially just food systems and to challenge the corporate food regime. In this context, my research explored grassroots rural adaptation to global change and citizen-led efforts to build democratically governed civic food networks that help support rural communities and work towards more just and sustainable food systems. These Civic Food Networks (CFN) also create new opportunities for political engagement where (rural and urban) food citizens can work together to advocate for policy change and to engage in education, outreach and activism that play an essential role in food systems transformation.

My research approach was based on the premise that any efforts to fully understand and support the development of a more democratic and sustainable food system must be matched by research that is equally rooted in democratic and transformative research processes. This research was anchored by a six-year community-based participatory action research project that established a civic food network in the Canadian Prairies called the Harvest Moon Local Food Initiative (HMLFI) (www.harvestmoonfood.ca). I consider this dissertation to be far more than a research report, but also a celebration and affirmation of the wider community that has animated this research program. In this concluding chapter I revisit the main contributions of the cycles of this PAR project that are reported in this dissertation and identify the main research questions and spin-off projects that emerged from this collaborative work.

7.2 REVISITING THE CONTRIBUTIONS

The research reported on in this dissertation resulted in a diversity of conceptual, pragmatic and theoretical outcomes within and beyond the academy. Indeed, this work was designed with the explicit goal of mobilizing research that was immediately actionable, but also that generated conceptual frameworks and evocative narratives that would engage in the broader theoretical and conceptual conversations taking place in academia and beyond. The dissertation reported on five cycles of action research resulting in multiple contributions to the literature on agricultural adaptation, alternative food networks, public geography/sociology and participatory action research.

Cycle 1: The first cycle of inquiry was reported in Chapter 2 and involved a mixed methods study consisting of 826 mail-in survey responses, 27 individual interviews and 12 group interviews with farmers and ranchers in the Canadian Prairies**.** The goal of this chapter was to examine how farm households adapted to the Canadian BSE (Mad Cow) crisis in order to better understand rural adaptation to global zoonotic diseases and to agriculture-related global environmental change as a whole. Farm household and community level innovation were identified as important adaptive strategies and as occurring in the effective absence of governmental and expert-based support. In particular, direct farm marketing, cooperatives and value-added niche food production emerged as important grassroots responses to these pressures, providing a point of departure for the next cycle of inquiry - the development of a cooperative local food initiative that would market value-added food directly to consumers.

Although originating as a global environmental disease epidemic with significant environmental, human and animal health impacts, BSE also resulted in catastrophic socio-economic impacts around the world, forcing farm households to take adaptive

action. This (published) chapter was a part of a larger research project (Ashraful and McLachlan, 2009; McLachlan and Yestrau, 2008; Stozek, 2008; Yestrau, 2008) that represents the first large-scale, systematic evaluation of farm adaptation to market-related harms associated with zoonotic disease. By de-centering climate change as the stimuli for adaptation, our results provide a new perspective that contributes to the theory and practice of agricultural adaptation to global environmental change (Anderson and McLachlan, 2012b).

These findings also argue that government responses to the crisis were indifferent towards, and often marginalized, the grassroots adaptations that emerged as central to rural adaptation. These findings resonate with an emerging body of literature that identifies how regulatory changes in response to food safety crises often undermine local food systems and rural resiliency (e.g. Hassanein, 2011; McMahon, 2009; Miewald et al., 2013a). The implementation of more rigid one-size-fits all food safety regulations has disproportionally affected small scale famers and processors, ironically advancing the centralization, scale intensification and industrialization of processing that led to the problems in the first place (DeLind and Howard, 2008; Hatt and Hatt, 2011). The disproportionate impact of food safety regulations on small-scale processors identified in Chapter 2 would foreshadow our later battles (Chapter 4) with the Manitoba government and our efforts to advocate for scale-appropriate food regulations in the province.

Cycle 2: The second cycle of inquiry is reported in Chapter 3 and reported on our efforts to establish a collective local food marketing group or "Civic Food Network" in Clearwater, Manitoba called the Harvest Moon Local Food Initiative. The goal of this component was to examine the relations among farmers and farm families in the process of developing CFNs to better understand the potential of these grassroots rural

adaptations to contribute to a more resilient and locally controlled food system. The case study drew from five years of data collection and from the experiences of the four co-authors who were actively involved as participant in the HMLFI (farmers, consumers and organizers).

Our analysis deconstructed the tensions, politics and opportunities that arise through the intensely socially embedded relationships that underpin these grassroots innovations. Although the more recent consumption turn in agro-food studies implies that that the emerging forms of civic food networks emerge from urban-space, our study demonstrates the important role that farmer-citizens play in developing more democratic and resilient civic food networks. These findings problematize the prevailing focus on civic harmony and inclusion in CFNs and argue that a more intentional focus on negotiating difference would enable CFNs to more effectively contend with the inevitable power struggles and conflict that undermine their potential. If actors can navigate these tensions, civic food networks can offer valuable spaces to build more democratic and resilient alternatives to the corporate-industrial food system.

Cycle 3: The third cycle of inquiry was reported on in Chapter 4, which included a collection of five short articles and an on-line video created as a part of the Real Manitoba Food Fight campaign. This cycle of inquiry emerged from a food inspection and seizure on the farm of HMLFI founding farmer members and collaborators in this PAR project, Pam and Clint Cavers. Based on footage of this raid, undergraduate students and instructors of the Living Rural Community and Environments course created a video and launched a website and political campaign called the Real Manitoba Food Fight. Our goal was to pressure the Manitoba government to address policies and food safety regulations that were stifling rural development and local food systems.

The five articles and the video included in this chapter critically analyzed the Manitoba government's actions in the Cavers' case and, more generally, critiqued the province's approach to rural development and food safety on the grounds that it benefits industrial agri-food systems and consequently marginalizes the development of direct farm marketing, local food and civic food networks. The print versions of the articles included in this chapter were circulated to over 184,854 readers and viewers. In response to the pressure excerpted through the Real Manitoba Food Fight, the provincial agriculture agency (Manitoba Agriculture Food and Rural Initiatives or MAFRI) agreed to participate in a meeting to discuss the relationships between food safety regulations and local food. This meeting took place on October 18, 2013 and represented an important first step towards establishing a more proactive working relationship between MAFRI and the local artisanal, small-scale food community.

Cycle 4: The fourth cycle of inquiry was reported in Chapter 5 and documented the last six years of this action research project to demonstrate how PAR transgresses the boundaries between theory and action and between academic and non-academic space. Throughout this dissertation we developed an innovative knowledge mobilization strategy that simultaneously led to the co-generation of both "academic" and "extra-academic" outcomes. I demonstrate how Participatory Action Research is rooted in a Knowledge Mobilization paradigm where different types of knowledge are shared, exchanged and co-produced by a wide diversity of actors located both within and beyond the academy in deliberate processes of social transformation.

However, conventional academic performance evaluation often undervalues or renders invisible the "non-academic" outcomes that resulted from this, and indeed from most, PAR. Yet, as demonstrated in this chapter, these "non-academic" outcomes are not

only inherently valuable in the immediate community context but also provide opportunities for knowledge creation that would be impossible using more conventional research approaches (also see conclusion in Chapter 3 for similar argument). Indeed, the "non-academic" and "academic" outcomes of this research were mutually constitutive and synergistic. Thus, I argue for a more supportive academic performance evaluation framework that is inclusive of the diverse outcomes that arise from community-engaged research and that valorize the diverse 'contributions to knowledge' made through PAR.

Drawing from our experience, I identify three key Knowledge Mobilization strategies that can inform knowledge mobilization in PAR: using transmedia to exchange knowledge via multiple platforms and mediums; setting hooks to draw together diverse knowledge communities; and layering to deliver knowledge at varying levels of detail and complexity. These Knowledge Mobilization strategies are arguably useful in any research context, but might be most immediately applied in the practice of university extension, PAR and in farmer-to-farmer training. By challenging and transgressing the boundaries that separate the academy from the wider public, participatory action researchers can contribute to transforming the academy to better serve the public good.

Cycle 5: This final cycle of inquiry, at least in this thesis, draws from my own experiences over the past six years of my graduate education and my experience as a participatory action researcher. I examine my own performance of "public scholarship" through an autoethnographic script that deconstructs graduate education, the dissertation and the professionalizing discourses that often impede public scholarship. The chapter analyses the temporality and spatiality of my own dissertation, particularly focusing on characterizing the tension between my performances of professional and public scholarship. I demonstrate how the heuristic divides between the different types of

scholarship (public, critical, professional, policy) are, in practice, not mutually exclusive and that, even within the limited scope of my dissertation research, I performed all four types of scholarship (public, critical, professional, policy). Rather than constructing an academic "division of labor" regarding these different 'types' of scholarship (Burawoy, 2005), a more critical and emancipatory approach to scholarship would place social justice and transformation as the foundation for all scholarly endeavors. This would encourage scholars to work across, through and even to dissolve the boundaries between these essentialist categories of scholarship to be more effective agents of emancipatory social change.

7.3 Spin Off Cycles - Research Opportunities

This dissertation recounts five of the more systematically documented and 'complete' cycles of inquiry within a larger PAR project. Outside of the scope of this dissertation, there are a number of "spin off" cycles of inquiry that beg for elaboration and further inquiry. Indeed, our PAR team is now pursing a number of these projects whereas other emergent questions await energy and resources. Most immediately, we are consolidating the research we conducted over the past six years on other models of CFNs which we used to inform the development of the HMLFI (Anderson and McLachlan, 2012a). A forthcoming manuscript draws on actor-network theory to characterize CFNs in western US and Canada and to evaluate the ways by which civic, market and state governance mechanisms work through, rather than on, the heterogeneous networks of the social economy (Anderson and McLachlan, In preparation).

One remarkable commonality amongst all of the CFN case studies that we examined was their proactive attempts to diffuse these innovative models to other

regions[17]. For example, the Oklahoma Food Cooperative hosts an on-line forum to support other groups to establish CFNs in their own regions and has hosted dozens of interested groups on study tours (including our own), leading to the formation of 16 co-ops across the USA and Canada. Future research could explore how innovative CFN strategies and models are diffused across regions, providing insight into the geographically and culturally mediated mutations that occur in their context-specific implementation. Diffusion of innovation has been evaluated most intensively in the context of the spread of technology (in the business economy) and the spread of protest in social movements (in the community economy) (Strang and Soule, 1998). However, little work has focused on how grassroots innovations are diffused across space and how they mutate in place. These diffusion processes are vital to enable the "scaling out" (Johnston and Baker, 2005) of civic food networks and represent important targets for academic, policy and community action and are deserving of further study.

Although direct farm marketing and civic food networks are gaining prominence across North America, our experience suggests that these grassroots efforts are constrained and undermined by regulatory, material and cultural barriers that may be more effectively addressed at larger scales of organization and through collective political action. Our ongoing work with the Real Manitoba Food Fight in Manitoba suggests that the growing interest in local food is presenting new political opportunities to shape programs and policies to create space for local food systems to grow and flourish. Indeed, a number of recent studies have documented the implementation of scale-appropriate regulations at a provincial or state level (Brekken, 2013; Miewald et al., 2013b). However,

[17] Also observed elsewhere in research on alternative food networks and social economy organizations (Cameron, 2010; Franklin, Newton and McEntee, 2011)

there is little understanding of how these regulatory changes came about and future research could draw from the social movement literature to evaluate how civil society actors, industry and government actors interact to shape food safety and agricultural policy as it relates to local food.

In Manitoba, our PAR team is tracking the ongoing development of the Real Manitoba Food Fight by analyzing discourse in the media and by documenting and analyzing the successes, set-backs and impacts of our campaign actions. Indeed, I am supervising Matt Ramsey, an honors thesis student, as he documents this campaign and other "food fights" taking place across North America. Cross-regional case study research could compare how food safety frameworks in specific regions have been established by examining the historical, political and cultural contexts in each region. This work should identify policy interventions that can best enable the development of more sustainable and democratic food networks. This research should also consider how ongoing changes in food safety policy at a national and international scales impact local food systems (e.g. the Food Safety Modernization Act in the USA; the recent transition of the food safety portfolio from Agriculture Canada to Health Canada).

I am working with Julia LaForge and Stephane McLachlan on a manuscript that works up survey and interview data collected during cycle 2 that identifies the barriers faced by direct farm marketers in North Dakota, Oregon, Manitoba and British Columbia (Laforge, Anderson and McLachlan, In preparation). This paper examines food safety policy within the context of the neoliberal socio-technological regime, identifying the modes by which the dominant regime suppresses grassroots innovation in the local food movement through food safety regulations while coopting local food

through local food programs and food safety regulations that favor larger operations and corporate processors and retailers.

Our PAR group is also actively working to assist others in developing regional food systems. In the fall and winter of 2012-2013, we organized six focus groups with rural agricultural communities in Manitoba to develop plans to support direct farm marketing and other action research projects that they identified in their regions. These workshops were coordinated by Jackie Avent and Julia Laforge and resulted in a report entitled, *Sustainable Inter-Regional Food Systems* (Laforge & Avent, 2013). Julia continues to track the outcomes of these meetings as a part of her PhD research and we are beginning to link these nodes together in an inter-regional network of sustainable food nodes in Manitoba.

7.4 Moving Forward

As this chapter of my scholarly life comes to a close I am applying and interviewing for postdoctoral and faculty positions across North America that build directly on this dissertation research. My doctoral research demonstrated how grassroots economic development strategies such as CFNs have the potential to offer valuable local solutions to global problems when they are approached reflexively and when the politics of cooperation are explicitly addressed. However, these localized approaches were constrained by regulatory and cultural barriers that are more effectively addressed at larger scales of organization and through collective political action. My proposed postdoctoral research extends my PhD research to evaluate how civil society is mobilizing politically to transform the food system in order to address poverty, to confront environmental decline and to better support sustainable farm livelihoods. This research

will broaden my inquiry from a local and economic context to examine politicized food system actions and actors through an international, multi-method and participatory examination of the international food sovereignty movement. I am eager to extend my community-based teaching and participatory action research program into new areas and to push the boundaries of critical public scholarship. By intentionally engaging in cooperative processes of social learning and transformation, I believe that universities can play an important role in building a more just and resilient society.

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Appendix A - Sample Consent Form

Department of
Environment and Geography

Winnipeg, Manitoba
Canada R3T 2N2
Telephone (204) 474-9667
Fax (204) 474-7699
environment_geography@umanitoba.ca

Informed Consent Form (Semi-Directed Interviews)

Research Project Title: Local Food Distribution Systems in Manitoba and Beyond

Researchers: Colin Anderson (Master's Candidate) and Dr. Stephane McLachlan, Environmental Conservation Lab, University of Manitoba.

This consent form, a copy of which will be left with you for your records and reference, is only part of the process for informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about anything mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

You are about to participate in a semi-directed interview to share information on your experiences, opinions and concerns regarding local food systems. This 'local knowledge' is essential for better understanding the benefits and struggles associated with the sale, distribution and consumption of foods in a local market.

The session will take approximately 60 minutes. During this time, a series of open-ended questions will be asked, which are designed for you to freely speak your mind.

The outcomes of this research will include a final report, a video documentary, a graduate thesis, and peer reviewed research papers. Also, outcomes will likely be posted on the university website. Once we have analyzed the data, we will provide you with a research pamphlet that summarizes the outcomes of this research.

A video recording device will be used while the interview is conducted. The information captured will be used to generate a transcript of the interview as well as a video documentary communicating our research findings. Because of the visual nature of video, your identity will NOT be anonymous in the documentary however you may, at any time, choose to withdraw from video outcomes. Should you wish not to be recorded with video, you may opt to share your knowledge for use in non-video outcomes and chose to be recorded either with audio or not at all.

In order to celebrate the importance of your voice and experiences, we will normally identify people by name in any research outcomes that arise from these interviews. However, our research is iterative and you will always be able to choose to remain anonymous, if you so wish. Indeed, you will be free to withdraw at any point in the research.

All of the information that you provide will be kept strictly confidential and will be stored in a locked cabinet, accessible only by the researchers on this project, for the duration of the project (5 years). All video, audio and originally written records will be destroyed after being transcribed.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued

participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

If you have any questions about the research, please contact Colin Anderson (204.474.7949) or Dr. Stephane McLachlan (204.474.9316) at the numbers provided, or at their respective email addresses, c_anderson@umanitoba.ca and mclachla@cc.umanitoba.ca

The Research Ethics Board (REB) at the University of Manitoba has approved this research. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Secretariat at 474.7122, or e-mail margaret_bowman@umanitoba.ca. A copy of this consent form has been given to you to keep for your records and reference.

Please indicate in the check-off boxes below which of the following you consent to:

1) Permission to video for research purposes? Video outcomes will NOT be anonymous however you will have the opportunity to view and have the choice to withdraw from video before it is made public.
   ☐ Yes
   ☐ No

   If no,
   Permission for researcher to audiotape and transcribe interview for research purposes?
   ☐ Yes
   ☐ No

2) Permission to release your identity in any research outcomes that arise from these interviews?
   ☐ Yes
   ☐ No

_____ _____
Participant's Signature Date

_____
Print Name

_____ _____
Researcher's Signature Date

APPENDIX B - PUBLICATIONS RESULTING FROM DISSERTATION RESEARCH

Peer Reviewed Journal Articles

Anderson, C.R., McLachlan, S.M., McDonald, W., Gardiner, J. (Accepted). Navigating the Fault-lines in Civic Food Networks. *Journal of Agriculture, Food Systems and Community Development.*

Anderson, C.R. and S.M. McLachlan, 2012. Exiting, enduring and innovating: Farm household adaptation to global zoonotic disease. *Global Environmental Change* 22, 82-93.

Manuscripts in Preparation (drafts or outlines available upon request)

Anderson, C.R. and S.M. McLachlan. (In Preparation) Mobilizing Knowledge Through Participatory Action Research: Transmedia, Hooks and Layers. *Action Research.* [dissertation chapter]. Anticipated date of submission: January 15, 2014.

Anderson, C.R. (In Preparation). Public Scholarship, Graduate Education and Coloring Outside of the Lines. For Submission to *Antipode.* [dissertation chapter] Anticipated date of submission: February 28, 2014.

Anderson, C.R. and S.M. McLachlan (In Preparation). Growing community-based regional food initiatives in the hybrid economy: Finding the sweet-spot between business and community. For submission to *the Journal of Rural Studies*. Anticipated date of submission: March 31, 2014.

Laforge, J., Anderson, C.R. and S.M. McLachlan. (In Preparation). Barriers to direct farm marketing in North America: Government Policy. For submission to *Agriculture and Human Values*. Anticipated date of submission: June 1, 2014.

Research Reports, Briefs and Non-Peer Reviewed Articles

Anderson, C.R. The Two Faces of Government Policy Towards Local Food. Canadian Centre for Policy Alternatives. Fast Facts. Available on-line at: http://www.policyalternatives.ca/publications/commentary/fast-facts-two-faces-government-policy-towards-local-food

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Papers and Posters Presented at Scholarly Meetings

Anderson, C.R. 2012. Placing Community Food Distribution Initiatives in a Diverse Food Economy. Presented at *Agriculture and Human Values Conference*. June 22, 2012. New York, NY.

Anderson, C.R. 2012. The Harvest Moon Local Food Initiative: Negotiating Difference in Regional Food Cooperative Development. Presented at the *Canadian Association of Food Studies Annual Conference*. May 27, 2012. Waterloo, ON.

Anderson, C.R. 2010. The Harvest Moon Society: Holistic Community Development Through Urban-Rural Partnerships. Presented at the *Rural Development Institute Conference: On the Bright Side*. Oct 15, 2010. Brandon, MB.

Anderson, C.R. McLachlan, S.M. Sim, V. and M. Spear. 2010. New Media and Scientific Communication. Panel Discussant at *PrioNet Annual Scientific Conference*. March 7, 2010. Ottawa, ON.

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Anderson, C.R. and S.M. McLachlan. 2009. Putting the Action in Research: Prion Risk Prevention and Adaptation. Poster presented at *PrioNet Annual Scientific Conference*. March 2, 2009. Edmonton, AB.

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Public Lectures and Invited Presentations

Anderson, C.R. 2012. A Critical Look at Cooperatives and Alternative Food Networks. Food Secure Canada General Assembly. November 2, 2012. Edmonton, AB.

Anderson, C.R. 2010. Building Local Food Communities. Manitoba Alternative Food Research Alliance World Food Day Food Justice Event. October 16, 2010. Winnipeg, MB.

Anderson, C.R. 2010. Reclaiming Agricultural Policy in Oregon. Presented at Brown Bag Lunch Series. Oregon State University Department of Anthropology. February 26, 2010. Corvallis, OR.

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Research Video

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APPENDIX C - GRANT SUPPORT

Grants Specifically for Participatory Action Research Project(s)

2012 - 2013 **$11,500**. Manitoba Alternative Food Research Alliance. Community Research Grant. "The Real Manitoba Food Fight."

2012 - 2013 **$18,807**. Manitoba Alternative Food Research Alliance - Community Research Grant. Applicant. "Networking to Foster Sustainable Inter-regional Food Systems in Manitoba."

2011 **$4,000**. Transmedia and Social Justice. University of Manitoba Graduate Student Research Grant. "Performing Collective Local Food Networks."

2010 **$5,989**. Transmedia and Social Justice - University of Manitoba Internal Research Grant. "Networking Local Food Communities in Manitoba - World Café(s)."

2009 - 2012 **$35,684**. Advancing Agriculture and Agri-food Canada Grant. Manitoba Rural Adaptation Council – Agriculture Canada Funding. "Growing from the Community Up: Improving Producer Livelihoods Through Direct Marketing."

2007 - 2012 **$200,000**. Heifer International Project Partner Grant. "Harvest Moon Local Food Initiative Action Research Project: Developing a Community Based Regional Food Hub."

2007 - 2008 **$24,500**. Sustainable Development and Innovations Fund (SDIF). "Farm to Fork: Producer, Consumer and Retailer Perceptions of Local Food in Manitoba."

2008 - 2011 **$30,140.** SSHRC: Linking, Learning, Leveraging (Investigating the Social Economy. Phase I: "Harvest Moon Society Marketing Cooperative: Building Social Capital through an Alternative Food Economy" and Phase II: "Beyond Local: Building Urban-Rural Solidarity Through Food Relationships."

Grants Specifically for Popular Education Programs

2011 - 2012 **$37,700**. Environment Canada Eco-action Community Funding Program. "Establishing the Prairie Center for Sustainable Landscapes & Communities."

2011 - 2012 **$10,000.** Waste Reduction and Prevention Program. "Fostering Community-Led Approaches to Pollution Prevention and Waste Reduction."

2011 - 2012 **$20,000.** Water Stewardship Fund. "Fostering Community-Led Approaches to Water Stewardship."

2010 - 2011 **$5,800.** Manitoba Alternative Food Research Alliance. Community Research Grant. "Evaluating Homegrown Leaders Youth Program."

2010 **$3,450.** Fulbright Eco-Leadership Program. "Community Approaches to Restoring Prairie Landscapes."

2009 - 2010 **$4,940.** Manitoba Government Environmental Youth Corps Grant. "From the Ground Up: A Community of Community Gardens."

2008 - 2009 **$15,560.** Prairie Spirit School Division Curriculum Development Partnership Grant. "Learning About, In and For the Environment"

Research Brief

FARM to FORK RESEARCH farmtoforkresearch.com

Coping with the BSE Crisis in Canada

Bovine spongiform encephalopathy (BSE) has been found in 25 countries, costing billions of dollars in those affected economies, and as a global phenomenon has had profound social and environmental impacts at multiple scales of organization. In Canada the socioeconomic impacts of BSE were especially potent for farm households who were force to take adaptive action in response to the crisis.

To evaluate how farm households adapted to the BSE crisis in Western Canada, our study included a mail-out survey of 826 farmers, 27 individual interviews and 12 group interviews with farmers and ranchers in Alberta, Saskatchewan and Manitoba.

Our results showed that farm households adapted using three general strategies: **'exiting'** from beef production or agriculture altogether; **'enduring'** or adaptations that seek stability; and **'innovating'** to pursue new opportunities.

EXITING
Getting Out

Exiting adaptations were predominately viewed as a last resort. The prospect of farm exiting represented much more than the loss of a business to many farmers but also a loss of home, heritage, and for those who out-migrate, a loss of community.

"**Your home is right where your cattle are,** you look out your window and you see a cow. **You never get away from it—it's who you are.** And it is not an easy thing to pull up. Where are you going to go; what are you going to do? You can't get a job tomorrow; it's a very difficult situation. The future doesn't seem that good."
(Manitoba Farmer)

Take Home Lessons

- Farm households adapted to BSE using three adaptation types: exiting, enduring and innovating.
- Farm exits were mostly forced and thus often left households vulnerable.
- Enduring is important in short-term crisis although long-term chronic enduring increases vulnerability.
- Grassroots innovations were especially important in the relative absence of expert-driven innovation.
- Familial adaptations can be as important as those made in the farm operation.
- Government support for adaptation encouraged a return to the status quo

This research brief was adapted from: Anderson, C.R., McLachlan, S.M. (2012) Exiting, enduring and innovating: Farm household adaptation to global zoonotic disease. Global Environmental Change 22, 82-93.

Downsizing the herd represented a moderate form of exiting and a minority (28.8%) of respondents agreed that it was an important adaptation. Even fewer (17.6%) respondents indicated that "finding the first and best way out of the cattle industry" was an important response.

BSE not only forced established farmers to exit but also discouraged prospective farmers from entering the industry—a phenomenon we refer to as "premature exiting." Many respondents expressed concerns about the implications of BSE for the next generation of farmers. As one respondent from Alberta indicated, "Young farmers [age 20+] were so discouraged they turned to new careers."

Farm exiting, farm entry and farm transfers between generations are challenging processes that require further consideration in adaptation research and increased government support, especially during times of crisis.

Dave Pogson with his daughter Ashley. BSE pushed farm youth away from agriculture, exacerbating concerns over the loss of the next generation of farmers.

ENDURING
Making Do Waiting

Enduring adaptations attempt to regain stability on the farm rather than pursuing new opportunities. They allowed respondents to persist in the short term and, in effect, to avoid making substantial immediate changes. These strategies were relatively common, and mainly focused on reducing expenditures such as reducing vet visits.

For example, many respondents (41.1%) agreed that taking out more loans was an important short-term enduring response as many families were forced to go "waist-deep into debt."

Although some enduring adaptations entail a minimal commitment on the part of the farm households and could thus be seen as temporary (and less central) coping responses, our results suggest that the "chronic enduring," where one enduring response leads to the next, can undermine the capacity to undertake more proactive adaptations and the ability to cope with future adversity.

Enduring adaptations, in our study, were linked to declines in economic, social (e.g. exhaustion and stress) and natural (e.g. overgrazing paddocks) capital. Soil erosion, pollution of waterways and overstocking-associated introduction of disease into wildlife populations were seen as consequences of enduring adaptations that will have long lasting, although often underappreciated environ-mental and social implications.

INNOVATING
Capturing Opportunities

Adaptations that were included in the innovating adaptation type represented a substantial and proactive change in management practices and a move to experiment with new strategies, technologies, partnerships and ideas.

Market-oriented. The majority (61.9%) of respondents agreed that 'finding other markets for livestock' was an important strategy for adapting to BSE. Half (51%) agreed that marketing directly to consumers was an important adaptive response. Respondents identified farmer-owned slaughter cooperatives as an urgently needed adaptation to gain more power in the marketplace, *"cooperatives and organizations where we can maybe drive our own markets."*

Production-oriented. About half (54.6%) of respondents agreed that rotational grazing was an important innovating adaptation that allowed producers to maximize pasture carrying capacity. Survey respondents were less inclined towards more specialized alternative farm management practices such as holistic management (HM) and organics.

Families Facilitating Adaptation to Crisis

Farm adaptation includes BOTH adjustments in the farm operation (operational adaptations) as well as the farm household (familial adaptations), often transferring human and material resources between the two. Familial adaptation becomes more important during crisis when operational responses are often inadequate. The inter-dependence of the

farm operation and farm household is a critical source of adaptive capacity that has allowed family farming to persist whereas all other sectors in agricultural have become corporate owned.

Thus, families were central to all three adaptation types, and particularly in grassroots innovating adaptations which were enabled by interpersonal connections and social networks amongst families, for example, when farmers engaged in direct to consumer marketing to friends and family, when they participated in holistic management clubs, or when they worked with other farm households to form slaughter or marketing cooperatives.

Grassroots Innovation: Thinking Beyond Technology and Commodity Production

Research on adaptation in agriculture generally emphasizes the importance of individual farms in short-term reactive adaptation, whereas agri-business and governments are responsible for fostering longer-term adaptation by implementing strategic large-scale strategies and by developing technologies to address current and future problems. This characterization denies any influential role for farmers and rural communities in generating long-term adaptation strategies and, indeed, can even undermine grassroots adaptations.

Research on farm adaptation has likewise primarily focused on agronomic farm adaptation strategies that maintain or increase agricultural productivity. However, few farm households rely solely on commodity production to support their livelihoods and most also pursue multi-functional activities (i.e. extra-agricultural), which often include non-farm employment or other non-farm business activity.

"One of the local packers looked into getting a killing plant and upgrading this killing plant... the guy told him it would be 5 to 7 years before he could get all the government bookwork done... So that's frustrating: here I am a producer that wants to market cattle through this and he's on the packing end of it that wants to provide a service for us... we can't go to a big multinational because ***they don't want to be bothered with us."*** *(Manitoba Farmer)*

This focus on government and industry in strategic adaptation, on technology and on commodity production reflects that policy-makers and scientists are primarily concerned with maintaining and increasing food production and gross domestic product at national and international scales of organization. However, our shift in perspective and focus on improving farm livelihoods and rural communities as the goal for adaptation highlighted the importance of familial and multifunctional strategies in rural adaptation. Confronted by rural/farm decline, farm households are making adaptive decisions that go beyond maintaining (enduring) or improving (innovating) commodity production. They are also adopting strategies that add value to farm products, that deliver environmental or agro-tourism services, that glean income from non-farm employment or entrepreneurship, and that draw from and contribute to the social and cultural capital in rural communities.

The Role of Government: Maintaining the Status Quo

Government support at the farm level promoted stability, with inadequate support provided for change-orientated adaptations.

In managing the BSE crisis, the Canadian federal government worked most closely with highly influential actors in the beef industry (e.g. large producer organizations, slaughterhouses, feedlot operators, banks) while encouraging producers and the general public to wait out the crisis and that a return to normalcy was inevitable and desirable.

One of the outcomes of this top-down process is that it was the larger and more powerful actors that received the most compensation relative to those that were less influential (e.g. cow calf operators, family farms, direct marketing operations, regional abattoirs). These unequal power dynamics encourage and enable governments to support adaptations that maintain the status quo rather than facilitate change-orientated adaptations that have the potential to redistribute power to less influential actors and to support more proactive adaptations and change.

Indeed, some have argued that crises such as those associated with zoonotics allow powerful actors not only to perpetuate the status quo but also to enable change that ensures their dominance in society while marginalizing alternatives. Thus, one-size-fits-all regulatory changes in the meat processing industry, such as those implemented in Canada in response to BSE, disproportionally encumber smaller and start-up processing plants who lack the capital and economies of scale to invest in bringing facilities into compliance. These regulations thus provided a competitive edge to the already well-established and highly concentrated meat-processing industry in Canada.

Producers in our study called for governments to support grassroots innovations that would increase domestic slaughter capacity, to facilitate the creation of producer-owned slaughterhouses and to diversify export and domestic market opportunities. Instead, governments predominately focused on regulation-based mitigation strategies to re-establish pre-BSE trade and production conditions in the cattle industry. Government support for adaptation at the farm level focused on enduring adaptations that were congruent with a desire to return to the status quo, and a valuable opportunity to support a wider diversity of rural adaptations was lost.

The challenges associated with predicting and controlling zoonotic diseases are being exacerbated by the intensification of global meat and livestock trade and as climate change facilitates their spread.

Government decision-making would ideally involve those most affected by these crises to help more effectively anticipate the rural consequences of zoonotics like BSE but also to ensure that farmer needs are prioritized and to enable the survival of farm households and rural communities now and into the future. ►►

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PHOTOS: Joey Goertz (p. 1, 4); Colin Anderson (p. 2, 3). BRIEF DESIGN: Greg deJong

Research Brief

FARM to FORK RESEARCH farmtoforkresearch.com

Negotiating Difference
in Collective Farmers Marketing Initiatives

Family farms in the Canadian Prairies are faced with a growing crisis. A cost-price squeeze has led to chronically low farm incomes exacerbated by episodic stressors such as the BSE crisis, regulatory change, drought and flooding. Yet, farmers are characterized by innovation and resilience and are adapting to meet these challenges.

Recent consumer interest in quality or alternative food production and 'local food' is generating opportunities that some farmers are pursuing through **Collective Farmers Marketing Initiatives (CFMI)**. These cooperatives have the potential to help extend the relevance of local or regional food from beyond the shadow of urban centers to more remote farmers and communities and to farmers who are otherwise unlikely to direct farm market.

This action-based research project documented the first four and a half years of the development of the first CFMI of its kind in Manitoba. This project was initiated in August 2006 and brought together 14 farm families to form the **Harvest Moon Local Food Initiative (HMLFI)**.

BEGINNINGS

The HMLFI is based at the town of Clearwater, Manitoba, approximately 200 km southwest of Winnipeg in the Prairie Region of Canada. On May 23, 2003, the Canadian BSE crisis began, triggering a socio-economic crisis that devastated farm households and rural communities prompting farmers, especially cattle producers, to adapt their operations. Direct farm marketing and cooperatives emerged as one important response to the crisis, providing a point of departure for the development of the HMLFI.

Take Home Learnings

- Rather than avoiding the negotiation of difference in CFMI development, it should be **recognized and confronted** early on and re-visited throughout.
- Establishing group processes that are **fair and inclusive** is an important step to create a space where difference can be effectively negotiated.
- These **cyclical** and evolving initiatives are **imperfect works in progress** and important incubators for innovative ideas, projects and partnerships.
- Initiatives should consider adopting inclusive quality criteria in **standards that allow for adaptation and transition**.

Adapted from forthcoming paper: Anderson, C.R., McLachlan, S.M., McDonald, W., Gardiner, J., Forthcoming. I Sell, You Sell, Can We All Somehow Sell Together? Negotiating Difference in a Collective Farmers Marketing Initiative on the Canadian Prairies.

Video 1 - Harvest Moon Local Food Initiative promotional launch video. Click here: Dailymotion

Individuals expressed diverse motivations for becoming involved in the project the reflected economic, social and political priorities. Some of these were instrumental in focus, where members were driven by a desire to improve their farm businesses, income or develop new skills. In addition, members were driven by non-instrumental motivations where they desired to create alternatives to corporate agriculture, to build community and to create opportunities for the next generation of farmers. These individual motivations were subsumed under one common vision statement:

"We are a local community committed to ethically producing and marketing high quality, healthy food for the betterment of humankind and the environment now and for generations to come"

CONFLICT

After almost two years of planning, the HMLFI 'launched' in September 2008 with much hope and enthusiasm (video 1). The HMLFI went on to sell only $10,000 worth of farm products over the course of the next six months. During this period, a range of unresolved internal conflict and contradictions surfaced that compromised the effectiveness of the HMLFI and ultimately led to the dissolution of the marketing entity in its original form.

Distribution Model

Soon after the launch, some members perceived an irreconcilable division between:

a. those who wanted to distribute food by combining their products and selling under one brand, what the group called the 'pooled' or **'We Sell'** approach
b. those who wished to distribute food directly from their farm to consumers (i.e. no pooling of products) using a collective label, or what the group called the 'direct' or **'I Sell'** approach.

The split between "I Sell" and "We Sell" reflected, in part, differences in the degree to which people were open or able to establish more involved relationships with their customers. One of the "I-sellers" noted, *"there is no reason that we shouldn't see our customers all the time"* while in direct contrast, a "we-seller" commented, *"I mean we can't have our consumers here all the time..."*

Thus, Not all participants were interested in collectivizing in the same way. "I-sellers" wanted to retain their connection to the customer and avoid pooling products. They were interested in cooperating in finding new customers for their own direct marketing business and perhaps sharing transportation and promoting individual farms under the HMLFI banner.

"We-sellers" were uninterested in taking on the additional roles required by direct marketing and hoped that HMLFI take on these responsibilities as

described by Keith Gardiner [video 2]. Late in the process, a hybrid approach was proposed whereby the group would have both an "I sell" and the "We sell" distribution approach. Yet, by this point, the cohesion within the group had disintegrated and progress was undermined by undercurrents of distrust.

Video 2 –Keith Gardiner describes the reasons he is not interested in direct farm marketing. Click here YouTube

Quality & Standards

Initially, the group developed an open and adaptive set of standards that allowed the group to be inclusive and flexible. The group recognized that many farmers are locked into particular modes of production and that to be effective, the group must allow for transitional farmers [video 3]. Despite these aims of inclusivity, the cohesiveness of the group was undermined when these relatively fluid standards became more rigid as diverging visions of appropriate standards were negotiated and proposed.

Because of conflicting notions of 'quality', sellers anticipated that any negative eater/customer experience would reflect poorly on their operations. For example, a "We-seller" indicated, "*I'm not interested in being a part of something like that, because one bad carcass like that, they'll tell a hundred people and it takes years to develop these markets." (Don Guilford).*

Conversely, "I-sellers" believed that quality was constructed through interpersonal relationships, ergo grading standards were unnecessary, and that focusing on grade without adequate consideration of the other dimensions of quality (re-connection, health, etc.) placed their operations at risk.

According to the latter, customers define quality based on knowing the farmer and where their food comes from and they tolerate, or even come to appreciate, inconsistencies in the eating experience between foods from each participating farm.

Gender, Generation, Communication & Pace

A digital divide existed in the group, which seemed to be age-related as it was the older farmers who were less adept in email and web communication, in part because of a skill-deficit but also a belief in the importance of face-to-face meetings.

Generational differences were also implicated in a tension between older members who had aspirations to reach a development goal of $1 million in sales within 3-5 years and younger ones who advocated for and had time to wait for a more gradual approach.

The members who were most firmly polarized tended to be men. As the discussions became more hostile, women who were involved early on began dropping out. The gradual departure of these women, who tended to provide more moderate voices in the group that had a tempering influence on the interactions, only accelerated the conflict. Their departure also seemed to have adverse implications for those women that remained. The role of gender in the group dynamic was however contested. Yet, this discussion points to an important research question: how does gender play a role in shaping the governance of CFMIs?

Video 3 - Manitoba Cattle Farmer Don Guilford on adaptive standards. Click here YouTube

Separation and Spin-Offs

These inter-group differences ultimately resulted in conflict that split the group into two groups. A smaller subset of farmers formed a separate corporation called "Prairie Sky" that focused on a pooled or "We Sell" approach that targeted restaurants and institutional food buyers. A few early positive contacts with a large institutional buyer and a restaurant provided an optimistic start,

yet the group encountered a number of ultimately fatal barriers and no longer operates.

The remaining members of HMLFI developed a new collective selling approach by organizing a network of local food buying clubs. In this model, customers were able to choose a specific product from a particular farm. These orders were then aggregated and delivered once a month to four central drop-off points (buying clubs) in Winnipeg. A consumer-farmer governance model has led to different group dynamics and grounded decisions in both consumer and farmer priorities presenting new opportunities and challenges.

Many participants developed substantial direct-marketing businesses along the way, in part facilitated by the visibility that HMLFI provided. Numerous informal collaborations emerged throughout the project. Thus, farmers started endorsing each other's farms, referring customers and even selling each other's products.

A cooperative endeavor also was initiated by two of the pooled group members in collaboration with another member of their holistic management club.

For others, the primary benefit of the group was that it offered a more general peer-support network, which enabled participants to become more effective agents of change [video 4].

Reflections

The HMLFI initially focused on exploring a common vision yet members later came to realize that member needs and motivations were far more diverse than anticipated. Farm size appeared to be one of the divisive factors. On the surface, mid-scale farmers and smaller farmers appeared to have different needs and thus required different distribution channels and organizational structures.

Although it was the smaller farmers who were originally the most marginalized when the initiative focused exclusively on the "we sell" approach, it was the larger farmers who were ultimately excluded from the HMLFI and chose to instead form their own separate cooperative.

The most damaging conflict in the group arose from differing visions of what constitutes "good food" and thus "good farming". While it was clear that all members had a deep connection with their land, community and the environment, each defined and approached responsible stewardship differently. Agriculture is conventionally dominated by individualistic and competitive logic and farmers rarely need to negotiate difference with one another. In CFMIs, however, these differences are forced to the surface and must either be negotiated through inclusive and reflexive processes that allow for difference or avoided through exclusive processes that foster homogeneity.

The HMLFI attempted to embrace a flat organizational structure without any explicit hierarchy, leading to an ostensibly more transparent and inclusive initiative. This fostered greater diversity but also required more extensive negotiation of difference.

The HMLFI attempted to be inclusive and bring together a diversity of farmers. In retrospect, many members thought that this was ultimately a mistake and that two separate initiatives may have been more effective than a hybrid approach.

Through their participation in HMLFI, member farmers were forced to reflect in new ways about their farms and values, stimulating individual and collective innovation – whether this included new cooperative ventures, new production or farm management practices (e.g. treatment for intestinal worms) or identifying new education and mentorship opportunities. It was through their participation in the CFMI, that members were able to

Video 4 - Pam and Clint Cavers recount the benefits of working with the HMLFI. Click here: YouTube

articulate and act on these projects.

The vast majority of farmers in the Prairies and in the western world are culturally and materially "locked in" to the conventional agri-food system and typically unable to identify with alternative production or marketing systems. The impact and relevance of CFMIs will thus be significantly limited without the appropriate structures and tools for these farm households to experiment with and transition towards alternatives. Simple assertions of inclusivity are inadequate. Active recruitment, intentional dialogue about difference, and space for meaningful participation are required if farmers that are otherwise committed to the conventional agri-food system are to be engaged in these initiatives.

Conflict in CFMIs is inevitable and perhaps even necessary in the construction of democratic projects. If these experiments are to effectively challenge the status quo, they will necessarily function outside the norms of the mainstream economy, precariously pushing personal, interpersonal and societal boundaries.

Attention should be paid to how difference is approached in these initiatives, to understand how they might involve a greater diversity of participants for more substantial transformative change.

By reimagining these problems as opportunities, we can envision both 'successful' and 'unsuccessful' CFMIs as cyclical and imperfect works-in progress, and ultimately as means toward more substantial, and perhaps unanticipated, change rather than ends in and of themselves. ♦

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PHOTOS: Colin Anderson. BRIEF DESIGN: Greg deJong

Thank you to all of the members of the Harvest Moon Local Food Initiative. Your passion, perseverance and integrity as modern-day pioneers, exploring the frontiers of change in agriculture, food and building community is humbling. This project was funded by: the SSHRC Linking, Learning Leveraging project; the Manitoba Rural Adaptation Council (Agriculture and Agri-Food Canada); Manitoba Government Sustainable and Development and Innovations Fund; Heifer International Canada; SSHRC Operating Grant to S.M. McLachlan; Graduate Capacity Building Grant from the University of Manitoba Transmedia and Justice Group; and a SSHRC Canadian Graduate Scholarship to C.R. Anderson.

APPENDIX F - RESEARCH BRIEF 3

Research Brief

FARM to FORK RESEARCH farmtoforkresearch.com

Community-Based Regional Food Distribution Initiatives: A cross-case analysis

Community-based regional food initiatives are emerging across North America and beyond that offer an alternative to the mainstream food system – an opportunity for farmers and consumers to work cooperatively to build a more just and sustainable food system.

There is great interest in developing cooperative approaches that can up-scale the impact of localized food initiatives (e.g. farmers' markets, direct marketing) to reach more farmers and eaters. In this brief we focus on Community-based Regional Food Distribution Initiatives (CRFI). Rather than attempting to sell through the conventional food system and infrastructure (e.g. grocery stores), CRFIs bring together farmers and/or eaters to cooperatively build an alternative community-located food distribution infrastructure, for example in spaces such as neighborhoods, farmers' markets and community centers.

CRFIs range in size, aims, structure and scope, but our definition includes those that satisfy the following criteria: (1) Are collective projects; (2) that distribute alternative food; (3) in a regional geography; (4) through community spaces and networks.

In this study we explored the strategies used in CRFIs in their efforts to upscale both the social and economic impact of localized alternative food networks. This research project involved interviews, video documentation, site visits and document reviews with four comparative case studies.

Take-home Lessons

- CRFIs are collective efforts to distribute food outside of the mainstream retailing system, through community networks and spaces
- Balance between eater-farmer participation in decision-making contributes towards a fair/democratic food system
- CRFIs are well positioned to deliver economic, social and political outcomes by blending marketing, advocacy and educational activities.
- CRFIs should take care to foster inclusion, particularly for under-represented groups
- CRFIs work carefully to remain within the sweet-spot between being a business and a community

This research brief is a precursor to a full-length paper that will be available at www.farmtoforkrearch.com

March 26, 2012

Case Studies

FoodRoots Distributor Co-op, Victoria BC
www.foodroots.ca

Kootenay Grain CSA, Nelson BC
www.kootenaygraincsa.ca

Harvest Moon Local Food Initiative, Clearwater MB
www.harvestmoonfood.ca

Oklahoma Food Cooperative
www.oklahomafood.coop

The CRFIs were all started in the last decade and ranged in size of membership, from 3 to 125 suppliers and from 264 to 3,875 buyers and in terms of volume of sales in their peak year (from $54,000 to $812,000). The purpose statements of each of the cases reflected a desire to work towards both business-oriented and community-oriented goals.

Business-oriented purpose statements amongst the cases largely reflected a desire to improve farm livelihoods and offer a fair price and improved access for consumers seeking to procure alternative foodstuffs. Community-oriented goals reflected a desire to educate and reconnect farmers and eaters and to further food-oriented social movements (e.g. local food, food security).

Building and Governing

Once established, CRFIs can be governed primarily by farmers or by eaters or by a combination in a multi-stakeholder or solidarity CRFI model. The later represent a move from competitive towards cooperative relationships between farmers and eaters. Hard-wiring eater-farmer participation into formal governance structures (e.g. the Oklahoma case was legally a multi-stakeholder cooperative) can ensure that the needs of both are addressed.

All four cases were driven by key volunteers who championed the establishment, maintenance and growth of the CRFI. Bob Waldrop of the Oklahoma case described three main types of roles that need filling in any CRFI: the 'Exhorter,' the 'Management Nerd,' and the 'Financial Nazi.' (Video 1 - YouTube)

One person or six people together could fill each of these roles, provided they are all effective. However, the roles are interdependent:

> *"As the 'Exhorter' lifts everyone's eyes to the clouds and the heights, people are going to start floating up and the management nerd and the 'Financial Nazis' will grab onto their ankles, and keep everyone grounded in the good fertile organic soil… and help bring the vision into reality"*

Thus, the interplay of these roles underscores the need to establish a balance between business and community orientation.

Video 1 - Bob Waldrop of the Oklahoma Food Cooperative described three key roles that should be filled in community-based regional development initiatives. YouTube

CRFIs are often faced with the dilemma of choosing whether to remunerate volunteers. On the one hand, remuneration can ensure more consistency in human resources for carrying out the business of the CRFI. On the other hand, paying volunteers can change the 'feel' of the organization where a culture of volunteerism (giving) comes into tension with a culture of earnings (taking). This becomes difficult to manage as those who choose or prefer to volunteer begin to resent that others are paid, especially for volunteers who made significant volunteer contributions in the early stages of the CRFI. Because the viability of most CRFIs is predicated on these in-kind contributions, the potential of cascading demand for remuneration can greatly increase the cost of operations and poses a significant challenge.

The Oklahoma Food Cooperative has found a creative middle-ground to this dilemma. Rather than receiving direct remuneration, casual volunteers and some core volunteers are given credits towards food purchases at the co-op equivalent to minimum wage. Not all accept these volunteer credits. This approach seems to have moderated the commoditization of labour in a CRFI that was built on the power of volunteerism.

A key human resource in a CRFI is the farmers that sell to and eaters that buy from the initiative but do not contribute in other ways. Although these participants play a more passive role in the CRFI, each were viewed as potentially becoming more active in the CRFIs by contributing ideas, labor and recruiting others to the CRFI.

The CRFIs were participatory in intent, however participation was in practice uneven. There was a gap between aspirations to nurture active members who

contribute to the growth and development of a CRFI and the reality that not all farmers and consumers want to become more active. For the time being, these passive participants would rather just be buyers or just be sellers, thus satisfying their individual needs rather than also helping to create active community. Yet, the CRFIs thrived on the backs of active members and fostering participation was viewed as an important task.

Some of the CRFIs considered building into their membership criteria requirements for volunteerism. Harvest Moon at one point mandated that participating farmers sit on an organizing committee and be obligated to contribute one day each for delivering products. CRFIs also fostered more meaningful participation by creating open-membership committees and ensuring that anyone who wants to become involved would find a project to plug into or a task to carry out.

Blurring boundaries between community-building, marketing, education and advocacy

In CRFIs, boundaries blur between strategies that count as marketing (as a business strategy) versus those that count as education, as community building, and as advocacy.

For example, FoodRoots organizer, Lee Fuge, describes how the cooperative intentionally locates their pocket markets in political spaces (such as government offices) where they can access politicians that make policy decisions and bureaucrats who implement public programming in hopes that they might influence their attitude towards these important alternatives (Video 2 - YouTube).

Video 2 - Lee Fuge explained why she continued to set up pocket markets in government buildings when the sales were only marginal. YouTube

Inclusion

As community-oriented enterprises, the CRFIs aimed to be democratic and inclusive and to empower their community base. However, "community" implies the drawing of boundaries: who belongs and who doesn't? CRFIs that emerge within a pre-existing or defined community may inadvertently exclude others from participating. Conversely, there was much evidence amongst the cases that CRFIs work to bridge divides between communities.

Cost is one of the most substantial barriers for eater participation in CRFIs. Among the four cases, only one had an explicit program for improving accessibility for those for whom cost was a barrier.

Electronic communications and tools are highly efficient in terms of processing orders and minimizing transaction costs, however uneven competencies with and access to electronic communication tools can also present a barrier for both eater and farmer participants both in the ordering process and in the governance of the CRFIs.

Standards: balancing rigor and inclusivity
All four cases set quality standards to restrict the growing processes used by members and the types of end products allowed for sale. Choosing or creating a standard is an important decision that speaks to what the CRFI stands for and acts as a signpost for attracting new participants but can also prohibit farmers from participating. Three types of quality standards were evident amongst CRFIs:

- **Closed or top-down standards** use a pre-existing certification regime (e.g. certified organic) where quality had already been defined and written into a hard set of regulations that were designed to be applied across wide geographies and contexts. This leaves less room for ambiguity and provides familiar signals to both eaters and farmers as to what the CRFI stands for.
- **Open or bottom-up** standards are developed by the community and are typically more open and adaptable. These may be more inclusive, allowing for CRFIs to match standards to the make-up and needs of the community, however can prove difficult to negotiate.
- **Transparency or trust-based standards** are a variant of the open standard and have less onerous monitoring and compliance processes. Some basic production ethics may be defined, and all production methods must be disclosed.

Farmer Membership
All CRFIs face the question of how many farmers to involve throughout the various stages of growth. CRFIs can take one of three approaches at any given time:

- **Closed**: only presently participating farmers are able to supply through the CRFI.
- **Selective**: only farmers of certain types are admitted according to the group's desired makeup, product offerings, specialties, etc.
- **Open**: no restrictions in terms of numbers of farmers. All are welcome, so long as they meet the criteria for participation (e.g. basic quality standards).

Roy Lawrence of the Kootenay Grain CSA describes the dilemma where CRFIs may not be economically worthwhile for even a small number of farmers in the early stages of development (Video 4 - YouTube).

Video 4 - Roy Lawrence of Kootenay Grain CSA describes the dilemma of open membership for growing CRFIs. YouTube

Sharing Their Stories

Beyond carrying out the work in the region, each case showed a commitment to sharing their experiences with others in hopes that it would stimulate similar CRFIs in other regions.

The FoodRoots organizers set up an on-line guide to establishing pocket markets leading to the spread of pocket markets to mainland British Columbia. The Oklahoma case established an on-line forum to host discussions about setting up an on-line food cooperative and have intentionally hosted dozens of groups to come and learn from their initiative—leading to the establishment of sixteen similar coops in the USA, Canada and one in Australia. Further, the extensively developed software packaged used by the Oklahoma case has been made available at no charge to other CRFIs.

The Kootenay Grain CSA has spawned additional grain CSA projects across North America; this was enabled through the exposition of the initiative on the syndicated radio program *Deconstructing Dinner*, reflecting the importance of independent media in diffusing grassroots innovations.

The Hybrid Economy

The CRFI-as-experiment provides opportunities for novel configurations or grassroots innovations that focus on the needs of communities, but draw from business logic, in order to upscale local food systems. However, projects in the hybrid economy inevitably yield tensions and contradictions as they attempt to blend strategies and tools business and community that are seldom readily compatible but rather need to be constantly (re)interpreted in the scheme of alternative economic enterprise. Thus, grassroots innovation in our cases involved the creative application of hybrid strategies ensuring that ideology and community need is held in check by the practicalities of doing CRFI business and vice versa.

Thus, the success of a CRFI as a hybrid economic project depends on its ability to find and maintain a moving 'sweet-spot', where growth and the need for efficiency is held in a delicate tension with the need to remain grounded in community need.

Paradoxically, to be successful in achieving social and political ends, the business must be viable; yet the social and political work undertaken in CRFIs does not always yield business results. Similarly, when decisions are made based on economic viability alone a CRFI can resemble any other business and thus risks disillusioning participants and losing the organizational support of its community base.

In the Harvest Moon case, members facetiously spoke of forming a 'warm-and-fuzzies' committee that would monitor the 'feel' of the initiative (Video 3 - YouTube).
Similarly, the Oklahoma Food Cooperative has a 'core

Video 3 - Discussion at Harvest Moon meeting around forming "warm-and-fuzzies" committee. YouTube

values committee' hardwired into their organizational structure. These bodies are tasked with ensuring that CRFIs remain within the sweet spot and are likely to be important during times of growth, when the logic and strategies of the business economy tend to have a stronger pull.

We found that CRFIs often blend educational, marketing and political messaging strategies, which can help differentiate these initiatives from conventional business or even from other alternatives that involve less community interaction. Embedding food exchange with political and educational messaging can serve to bring in new enablers and core volunteers.

When economic exchange is woven with a political message, an opportunity to socialize with another member(s) or an opportunity to learn something new, it can become an opportunity to transform a passive buyer into an inspired active contributor.

CRFIs are often presented as being consumer-driven, which denies the possibility of a more prevalent role for farmers in existing CRFIs and the important role that CRFIs could play in bridging the divide between farmers and eaters through more involved interaction. We would argue that the common focus on either consumption or production in most research misses the point that there is a need to strike a balance between farmers and eaters in the governance of CRFIs and more generally to foster solidarity through shared responsibility between farmers and eaters.

We found that there is great, perhaps under-realized, potential for scaling out CRFIs to other regions and for learning between CRFIs. The CRFIs in this study exemplified an open-source culture through a remarkable willingness to share their innovations with initiatives in other regions. This is in direct contrast to the standard business world where corporate models, tools and strategies are considered proprietary and are held as guarded secrets

Community–based food distribution initiatives are difficult yet rewarding projects. They require thinking outside of the economic development box and employ different strategies for growing the community enterprise and community movement. CRFIs are able to achieve a 'competitive edge' over other food supply chains by drawing from both community and business resources. Proponents of CRFIs should focus on tactics that allow CRFIs to stay within this sweet spot between business and community during times of both growth and scarcity. It is in this space where progressive economic enterprise can be scaled up through growth and scaled out through diffusion without sacrificing the values that come from being authentically embedded in and driven by community.

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