

How Does Food Get to the Table?
Sustainable Development Leaders' Framing of Food Processing in British Columbia
by

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Abstract

People need to eat. Because food is essential to well-being, food systems have become a vital component of sustainable development. With the role of converting farm and seafood harvests into the food that graces our tables, food processors are key food systems actors. In addition, food processors are major economic contributors and their operations have huge environmental impact. Despite being a major contributor to social, economic, and environmental well-being; the three main pillars of sustainable development, food processing has largely been excluded from the discourse. In order to understand how leaders in sustainable development think food gets to the table, this study sought to identify how they framed food processing. Frame analysis of the rhetoric and reasoning of sustainable development leaders revealed nine dominant frames that guide leaders thinking about food processing: *The Modernization Frame; the Undermining of Foundations frame; the Frankenstein frame; the Cook and the Store frame; the Consumer Stance frame; the Personal Health as Good Individual Food Choices frame; the Fantasy Food System frame; the Silo, Not System Thinking frame; and the Invisible Link frame*. These frames revealed negative perceptions and the invisibility of the BC food processing industry explaining its omission from discourse surrounding sustainable development. In addition to facilitating the identification of frames, an invitational rhetoric approach offered the opportunity to test reframes that provided new information about the food processing industry. The results of this unique study provide valuable insights as to how food processing should be reframed in future public relations strategies.

Keywords: food processing, food systems, sustainable development, framing, reframing, public relations, rhetoric, public trust

The first and most important impact of climate change on human civilisation will be an acute and permanent crisis of food supply. Eating regularly is a non-negotiable activity and countries that cannot feed their people are unlikely to be reasonable about it.

– *Gwynne Dyer, Climate Wars: The Fight for Survival as the World Overheats*
2010, p.8, Oneworld Publications

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Introduction

People need to eat and just about everything we eat is processed; apples are washed and bagged, peas are made into plant-based burgers, salmon is cleaned and packaged, and the list goes on, yet most people give little thought to food processing or how food gets to the table. Feeding people requires involvement from the entire food chain including: farmers, fishers, processors, distributors, retailers, and recyclers (Lang & Barling, 2012; Raja, Clark, Freedgood, & Hodgson, 2018). Furthermore, feeding people through the development of sustainable food systems has become a recognized concern of sustainable development. The problem is that the activity regarding sustainable food systems focuses on agriculture, or farming and gardening (Baker, 2011; Ericksen, 2008; Fresco, 2009; Lang & Barling, 2012; Raja et al., 2018; Zurek et al., 2018). However, farming is only one link in the food system chain and without the inclusion of all food chain actors, food systems are not viable (Lang & Barling, 2012). Food processing is a key food chain actor and this study sought to identify how food processing was framed by sustainable development leaders in order to understand why it has been overlooked. It was the consociation of food processing, sustainable food systems, and sustainable development that led to this study's focus on food processing within the overarching umbrella of sustainable development.

A review of the literature confirmed the food processing industry's *contributions* to sustainable development, identified the *challenges* facing the industry with regard to competing in the globalized food system and feeding British Columbians and revealed the *need* for public relations strategies to address negative perceptions with regard to food processing and processed food. Food processing is an important contributor to economic, environmental, and social well-

being, the three pillars of sustainable development (Agree, 2015; Baker, 2011; Ericksen, 2008; Feenstra, 2002; Fresco, 2009; Lang & Barling, 2012; Markey, 2010; MNP, 2016; Pothukuchi, 2009; Pothukuchi & Kaufman, 2000; Raja, Clark, Freedgood, & Hodgson, 2018; Zurek et al., 2018). Economically, the food processing industry is the largest manufacturing sector in BC (BC Ministry of Agriculture, 2019). With annual shipments of \$9 billion, food processing contributes 2.3 times more to the provincial economy than farming (BC Ministry of Agriculture, 2019). Environmentally, food processors do contribute to problems, however with investments in innovation and productivity processors can greatly reduce the environmental impacts of producing and consuming food. Socially, British Columbians' well-being depends on being able to eat. Given that virtually everything we eat is processed it stands to reason that food processors contribute to social well-being. Simply put, food processors are indisputable contributors to sustainable development.

Despite comprising British Columbia's largest manufacturing sector, food processing companies are primarily small family businesses that lack the resources required to remain competitive in the globalized food system. To illustrate, the entire BC food processing industry employs 36,900 people versus Nestlé with 308,000 employees (www.nestle.com). BC companies need to invest in innovation and productivity in order to compete with multinational companies. In addition, competitive forces of the globalized food system have decimated regional food production infrastructure and ownership (Jay, 2004). The result is that BC is increasingly dependent on imported foods, a situation that William Rees, a renowned human ecologist, argues is irresponsible (2016, p. IV, Forward). It is irresponsible because we are losing the ability to feed ourselves, as evidenced by a study conducted by the Institute of Sustainable

Food Systems which revealed that southwestern BC, despite being a highly productive agricultural region, could only supply 12% of residents' food (Mullinix et al., 2016). The need for significant investments in innovation, infrastructure, and technology in order to address growing challenges facing the food processing industry is widely recognized (Fresco, 2009; Markey, 2010; MLFW, 2010; Mullinix et al., 2016; The Canadian Agri-Food Policy Institute, 2014; BC Alliance for Manufacturing, 2017) however the industry has major a hurdle to overcome if it is to attract support and investment.

The greatest challenge facing BC processors is its bad reputation. The BC Alliance for Manufacturing (2017) identified that the food processing industry was plagued by a perpetual labour shortage due to its negative public image. People's views are influenced by the media and a lack (real or perceived) of information. Popular authors like Michael Pollan, Marion Nestle, Raj Patel, and others like them, do not differentiate between small and ginormous food processors in their denigrations of food processing. According to Nestle (2003), "Food companies will make and market any product that sells, regardless of its nutritional value or its effect on health. In this regard, food companies hardly differ from cigarette companies." (p. viii). Negative narratives regarding the food processing industry are common yet *silence* is the BC industry's response. Neither the BC Food Processors Association (www.bcfpa.ca), nor the Small Scale Food Processor Association (www.ssfpa.ca), the industry associations representing BC food processors, have strategies to build public trust – like food processors themselves, they are *under* resourced. The lack of public trust is a huge concern. The Canadian Centre for Food Integrity (CCFI; 2018) reported food processors were among the least trusted members of the Canadian food system and many people felt that they did not know much about the industry. It is

no wonder that perceptions of the industry are not good and based on framing theory (Fairhurst & Sarr, 1998) these negative perceptions contribute to the absence of food processing in the discourse surrounding sustainable development. For example, in their work regarding the framing of food systems, Auburn, Brown, and Grady (2005a) found that to avoid thinking about the terrible ways that food was produced (perceptions based on the media) people's default thinking reverted to a *Fantasy Food System* in which food was produced on beautiful farms. Guided by a *Fantasy Food System* people's perceptions were "all was well with the food system and there was no need to think about it" (Auburn et al., 2005a). The frames identified in this study indicate that the default thinking of sustainable development leaders is also guided by the *Fantasy Food System*, along with eight other frames that result in their not thinking about food processing, or having negative perceptions. In order to improve its visibility, and cultivate support and investment, the food processing sector needs to reframe itself and undertake strategic public relations campaigns.

Framing, a subset of discourse analysis, was identified as a powerful public relations tool to understand and change stakeholders' perceptions (Fairhurst, 2005; Gregory, 2000; Hallahan, 1999; Knight, 1999). In undertaking this research, I took a constructivist view which understands that people construct their own realities (Merrigan, Huston, & Johnston, 2012), and with this view, based my framing research on the interpretive paradigm in order to understand what food processing means to individual leaders. Theoretically, rhetorical theory, in the context of gaining understanding and facilitating change, permeates throughout my research (Foss & Foss, 2011; Kuypers, 2010). Recognizing my years' of experience in the food processing industry I was cognisant of my own perceptions and took steps to remain objective. To that end, I developed a

recruiting matrix and took a collaborative stance during the data collection process; I also systemized the data analysis phase to ensure objectivity. I focussed on leaders from interdisciplinary fields outside of agriculture and food in order to tap in on the multiplier effect and cash into expanded resources. Leaders were purposively recruited from the fields of community planning, economic development, education, funding, and health based on their influence over the conceptualization, funding, and implementation of sustainable development projects and programs in British Columbia. Data was collected through semi-structured interviews conducted with an invitational rhetorical approach that positions the interviewer and interviewee as equals in order to foster collaboration and mutual understanding. The rich, detailed data was subjected to *deductive* and *inductive* rhetorical frame analysis based on a combination of the work of Entman (1993), Kuypers (2009 & 2010), Auburn et al., (2005a), and Van Gorp and van der Goot (2012). Deductive analysis involved analysing the data against frames established by Auburn et al., (2005a) and Van Gorp and van der Goot (2012) regarding the food system as a whole and inductive analysis resulted in the discovery of new frames. Frame analysis revealed nine distinct default frames guiding leaders' thinking about food processing: The *Modernization frame*; the *Undermining of Foundations frame*; the *Frankenstein frame*; the *Cook and the Store frame*; the *Consumer Stance frame*; the *Personal Health as Good Individual Food Choices frame*; the *Fantasy Food System frame*; the *Silo, Not System Thinking frame*; and the *Invisible Link frame*. These frames expose a lack of understanding and negative perceptions that contribute to the omission of the BC food processing industry in discourse surrounding sustainable development.

The results of this study definitively answer my research question: *How do sustainable development leaders frame food processing?* and provide tremendous insights as to how food processing should be reframed in future public relations strategies and food systems research. The leaders that participated in this research had given little thought to food processing prior to being interviewed. In other words, the food processing industry was invisible to them; not something they thought about during the course of their work. Furthermore, any thoughts they did have about food processing or processed food were negative. Changing leaders' default thinking through the provision of new information about the BC food processing industry (reframing) will build trust and facilitate its inclusion in viable food systems and sustainable development. In addition, the targeted leaders represent a huge audience with access to tremendous resources. Once reframed as a vital contributor to sustainable development, the food processing industry, and the organizations that support it, stand to gain wide recognition, increased support and investment that will help food processors meet the challenges of competing in the globalized food system and improving British Columbians' food self-reliance.

Literature Review

My literature review is organized around four main themes: Sustainable development, sustainable food systems, and food processing; challenges facing the food processing industry; public relations; and framing. In the first section, I review the concept of sustainable development, the inclusion of sustainable food systems and the omission of food processing in discourse surrounding sustainable development. The first section also includes a brief profile of the BC food processing industry, including the industry's contributions towards sustainable development. The explicit identification of a gap (the omission of food processing in sustainable

development) and that real opportunities exist for food processor contributions to sustainable development, demonstrates the need for this research. The second section focuses on the challenges faced by the food processing industry and the need for investment, particularly in public relations, in order to demonstrate why food processing must be included in the discourse surrounding sustainable development. Here I review the findings of other researchers and industry organizations to validate the need for inclusion and investment in order for food processors to contribute to the economic, environmental, and social issues of concern in sustainable development. In the third section I briefly address the role of public relations with regard to image enhancement and why this study focuses on leaders in sustainable development. The fourth, and final, section focuses on framing, a core communication tool that presents the food processing industry with a powerful strategy for reframing itself as a valuable contributor to sustainable development.

Sustainable Development, Sustainable Food Systems and Food Processing

The concept of sustainable development originates from the late 1980s, with that era's growing global environmental concerns and the recognition that society needed to take more responsibility for sustainable planning (Roseland, 2000; Van Gorp & van der Goot, 2012). Today, the three main pillars of sustainable development, environmental, economic, and social well-being (Roseland, 2000) are ingrained in our society. In turn, interest in sustainable food systems as a vital contributor to sustainable development has increased substantially in the past two decades (Agree, 2015; Baker, 2011; Feenstra, 2002; Feenstra, 1997; Mullinix et al., 2016). According to Lang and Barling (2012), the concept of sustainable food systems was borne of the global need to address the complex issue of food security. While Smith identifies over 200

definitions of food security (as cited in Lang & Barling, 2012, p. 320) the bottom line is the need for a food system that produces enough food to feed people. This may be a globalized food system focused on specialization and trade, or local food systems designed to increase self-reliance. Regardless of type of food system, feeding people requires the involvement of the entire food system including: farmers, processors, distributors, retailers, and recyclers, cleverly described as ““soil-to-soil” inclusivity” (Raja, Clark, Freedgood, & Hodgson, 2018, p. 7). The problem is that most sustainable food systems focus on primary agriculture, or farming (Baker, 2011; Ericksen, 2008; Fresco, 2009; Lang & Barling, 2012; Raja et al., 2018; Zurek et al., 2018). While farming (or fishing) is the first link of a food system, without the involvement of other food system actors, there is no viable system (Ericksen, 2008; Fresco, 2009; Lang & Barling, 2012) nor food on the table. With regard to fishing, while beyond the scope of this research, fishing or seafood production is a huge gap in food system dialogue and deserves much more attention (Zurek et al., 2018). Nonetheless, like farm production, seafood harvests must also be processed before tabling. Recognizing that the entire food chain needs to be included in the development of viable food systems, this study focuses on understanding why food processing has largely been excluded from the discourse surrounding food system development in British Columbia.

Part of the problem is that BC food processors are relatively invisible, few know who they are, what they bring to the table and the contributions they make towards sustainable development. Boasting one of the most diverse processing regions in Canada, British Columbia is home to 2,600 food processors that produce a wide range of food, beverage, and natural health

products¹ (MNP, 2016). Ninety percent of BC food processors have less than fifty employees and 33% employ one to four people (Statistics Canada, 2013), the majority of which are family businesses. The people who make up our food processing industry are dedicated to the manufacture of good, safe food so that our tables are graced with food all year round. Virtually everything we eat is processed. For example, apples are washed and bagged, milk is made into cheese, and salmon is cleaned and packaged. Processors even play a key role in the lives of the most health conscious: processors wash and bag carrots, make almond milk, and plant-based burgers. In total, BC food processors employ 36,900 British Columbians, 22% of the manufacturing workforce or 1.5% of the provincial workforce (BC Alliance for Manufacturing, 2017). In 2016, the food processing industry, with sales of \$9.8 billion, surpassed the value-added wood sector to become BC's largest manufacturing sector (BC Alliance for Manufacturing, 2017). Furthermore, food processors account for 70% of total provincial agrifood² revenues (BC Ministry of Agriculture, 2019). In other words, the food processing industry contributes considerably more to the economic sustainability of the province than farming. Having established the economic contributions made by the food processing industry, the next sections cover the sector's involvement in the other pillars of sustainable development.

Food processing is both a contributor and a mitigator when it comes to some of the environmental concerns of sustainable development. Making Local Food Work (MLFW, 2010),

¹ According to Health Canada, Natural Health Products are naturally occurring substances that are used to restore or maintain good health. <https://www.canada.ca/en/health-canada/services/drugs-health-products/natural-non-prescription/regulation/about-products.html#a1>

² In Canada, food processing falls under the umbrella of agriculture; "agrifood" is the term used to conflate agriculture and food production.

a United Kingdom based non-profit dedicated to climate change adaptation, found that food processing and packaging greenhouse gas emissions are substantial and, in addition, with the trend to “cleaner” and fresher foods, refrigeration requirements have grown. For instance, with the desire for healthier foods, people are seeking products with fewer preservatives, resulting in more products requiring refrigeration. This is significant in that refrigerant gases are much worse for the environment than carbon dioxide (MLFW, 2010). Transportation is another example of an environmental issue related to food processing. While some proponents of local food systems view local production as a means to reduce emissions related to the transportation of food (www.davidsuzuki.org & www.foodmiles.com), others have identified that the increased efficiencies afforded through consolidation as a result of globalization reduce the environmental impact of food production (Newman, Ling, & Peters, 2013). The third and final example with regard to food processing as problem creator and solution generator is that of waste. A recent study conducted by Value Chain Management International and Second Harvest (Nikkel et al., 2019) identified that the food processing industry was the largest contributor to food waste in Canada. The study found that over 35 million metric tons of food is wasted on annual basis and of this, 43% is attributed to food processing. This food waste has huge economic, environmental (emissions), and social (food insecurity) impacts. The study attributed food processing waste to inefficient operations, rejection of imperfect raw materials, and imprecise purchasing practices (Nikkel et al., 2019). In other words, food processors need to improve their practices in order to address food waste. This is not a surprise given that the need for major investments in innovation, infrastructure, and technology in order to address growing environmental issues

associated with food processing is widely recognized (Fresco, 2009; Markey, 2010; MLFW, 2010; The Canadian Agri-Food Policy Institute, 2014; BC Alliance for Manufacturing, 2017).

Finally, with regard to the third pillar of sustainable development, social well-being, people could not exist in communities without food processing. Food, water, and shelter are the three basic human needs that must be addressed in sustainable development (Mullinix et al., 2016; Roseland, 2000). Food processing, with the function of converting farm and seafood harvests into food, is essential. Not only do food processors make sure that food gets on the table all year round, they provide jobs, ensure food safety, and contribute to food security. Food processors also facilitate cultural integration through the production of ethnic foods (MNP, 2016). In addition, BC food processors are willing to reformulate foods to meet healthy eating goals. This is significant given growing concerns regarding the healthfulness of processed foods and that multinational processors are unlikely to reformulate for a small jurisdiction like BC. On the other hand, small, nimble BC processors can, and will, modify their formulations, but often need help with reformulation and technological modifications. The examples outlined above demonstrate food processing's consociation with sustainable development and support the contention that processing should be included in the discourse surrounding sustainable community development. So, what is the problem?

Challenges Faced by the Food Processing Industry

Some may argue that as members of the largest manufacturing sector in BC, food processors are doing just fine, yet concerns regarding ongoing competitiveness and increasing reliance on the globalized food system counter this argument. In the scheme of the globalized food system, BC's processors are miniscule. Whereas Nestlé, the world's largest processor,

boasts 308,000 workers (www.nestle.com), the entire BC food processing industry employs 36,900 people (BC Alliance for Manufacturing, 2017). In order to compete against giants like Nestlé, BC processors must invest in innovative processing practices to improve economic viability, environmental performance, and social contributions (Fresco, 2009; Markey, 2010; MLFW, 2010; The Canadian Agri-Food Policy Institute, 2014, BC Alliance for Manufacturing, 2017; Industry Canada, 2018). However, William Rees, a renowned human ecologist, cautions against growth through efficiency-based production solely to compete in the global market. He elaborated by stating: “it is increasingly unwise for any region to become excessively dependent on potentially unreliable external sources of supply or to commit an excessive part of its own productivity to external markets” (2016, p. IV, Forward). The sustainability of the globalized food system is in question, as global climactic and geopolitical uncertainties risk assurance of a long-term secure food supply (Feenstra, 2002; Fresco, 2009; Mullinix et al., 2016; Robert & Mullinix, 2018). For instance, based on the Institute for Sustainable Food System’s report “The Future of Our Food System” if access to imported feedstock for animals was cut off, the southwestern BC bioregion, a highly productive agriculture region, could only supply 12% of residents’ dietary requirements (Mullinix et al., 2016). Note that the region was still only 40% self-reliant with imported feedstock in the 2011 baseline study and self-reliance is anticipated to decrease substantially without intervention as the population increases (Mullinix et al., 2016). The competitive forces of the globalized food system have decimated regional food production infrastructure and ownership through consolidation and closures (Jay, 2004) leading to a population increasingly dependent on the globalized food system (Feenstra, 2002; Fresco, 2009). Mairi Jay (2004), a geographer and ecologist, suggested it was productivist agriculture policies,

seeking to maximize output and productivity that led to “a Fordist food regime” (p. 152) of industry consolidation and the demise of small scale, regional production and food self-reliance. Food self-reliance is a region’s ability to feed its population and according to Rees (2016) increasing reliance on global food sources in times of growing climate and political uncertainties is unwise. Hence, in the pursuit of viable food systems, BC must invest in food processing infrastructure (Mullinix et al, 2016). Whether the BC food processing industry desires to compete in the global economy, or wants to increase food security and self-reliance, investments are required. However, the industry has an even bigger problem to solve.

Perceptions of food processors, and their products, processed foods, are not good. “There appears to be a stigma and poor image associated with the food and beverage industry” (p. 39) was a key finding of a study conducted by the BC Alliance for Manufacturing (2017), with perceptions regarding poor working conditions and unrewarding work contributing to the stigma. The Canadian Centre for Food Integrity (CCFI; 2018) reported that from 2016 to 2018 positive perceptions regarding food systems in general declined significantly with food processors among the least trusted members of the Canadian food system. Of note was the growing number of Canadians who “don’t know enough to have an opinion” (CCFI, 2018, p. 7). The reasons for these perceptions require further study but negative narratives in popular media may partially be to blame. Based on research conducted by FrameWorks Institute (2001), the media is one of the greatest contributors to how people frame public issues and the media are seldom complimentary of the industry responsible for getting food to the table. Examples include: the work of influencers like of Michael Pollan (2009), who claimed, “Bogus health claims and faulty food science have made supermarkets particularly treacherous places to shop for real food ...” (p. 26);

Marion Nestle (2003), who stated, “Food companies will make and market any product that sells, regardless of its nutritional value or its effect on health. In this regard, food companies hardly differ from cigarette companies.” (p. viii); or Raj Patel (2008) who wrote, “The concerns of food production companies have ramifications far beyond what appears on supermarket shelves. Their concerns are the rot at the core of the modern food system.” (p. 2). Such sentiments paint a grim portrayal of food processors. While I believe these narratives target large multinational corporations and not small BC processors, their authors seldom distinguish between small and large processors, and the messaging is very clear: processed food, and food processors, are bad.

To improve its reputation and facilitate funding and support for infrastructure, productivity, and environmental and social stewardship, the BC food processing industry must change negative perceptions by investing in public relations. Negative perceptions regarding the industry result in a lack of public trust (CCFI, 2018) and ongoing labour shortages (Industry Canada, 2017; BC Alliance for Manufacturing, 2017). According to the BC Alliance for Manufacturing (2017), the need to change perceptions is recognized: “Industry feels that there is a great need for an active educational and public relations program to raise the image of the industry and provide information on career opportunities available” (p. 38). In addition, the industry must invest in building relationships with other disciplines. Zurek et al. (2018) recommended a transdisciplinary approach to sustainable food and nutritional security in order to enable “an informed debate about trade-offs associated with options for change among food systems actors as well as in the policy making arena” (p.1). However, according to Auburn, Brown, & Grady, (2005b), achieving transdisciplinary harmony is no small task given the disparate views of food system actors. For instance, each member of the food supply chain wants

to buy low and sell high, hence seed sellers, farmers, processors, retailers, and consumers all have different agendas, as do policy makers and regulators, yet achieving viable food systems depends on their working together. Communication experts specializing in framing, Auburn, Brown, and Grady (2005a), recommended the development of a “conceptual platform” that reinforces individual actor’s contributions to the larger food system. However, food processors need to reframe their role in food system development to be an *understood* (rather than just a named) actor in conceptual models, in order to be invited to work side by side with other food system actors towards common goals.

Public Relations and Leaders

The food processing industry needs a facelift; a reframed “look” that can be achieved through strategic public relations. Effective image enhancement, as one of the core activities of public relations, relies on communications research to understand key stakeholders. For the sake of this study, key stakeholders have been identified as leaders representing the interdisciplinary fields involved in sustainable development (Agree, 2015; Day Farnsworth, 2017; Feenstra, 1997; Feenstra, 2002; FrameWorks Institute, 2008; Gupta et al., 2018; Jay, 2004; Markey, 2010; Zurek et al., 2018). The multiplier effect of focusing on leaders as influencers of larger groups is a widely accepted public relations strategy (Gregory, 2000; Knight, 1999). Furthermore, understanding how stakeholders think is essential towards achieving “win-win” scenarios according to Dozier, Grunig, and Grunig’s (2013) two-way symmetrical communication model. Also referred to as 2S communication, the two-way symmetrical model of public relations seeks to manage conflict and achieve mutual understanding among disparate stakeholders (Dozier et al., 2013). Lang and Barling (2012) and Zurek et al. (2018) called for common understanding

between food systems actors, who have real and perceived different agendas, in order to identify solutions that work for all parties. Framing is a powerful tool in the public relations toolbox and frame analysis is used to understand stakeholders in order to develop strategic communications towards achieving common goals (Fairhurst & Sarr, 1996; Gregory, 2000).

Framing, Reframing and Frame Analysis

Framing is a widely used term that means many things to many people. Entman (1993) described framing as a “fractured paradigm” because framing has been defined and used in so many different ways. One of the first theorists to bring the concept of “framing” into scholarly discourse, sociologist Erving Goffman (1974), found that those with power influence others based on their own frameworks. In other words, a leader leads by guiding others to do what she or he thinks is right based on her or his beliefs. This study focuses on the role of framing in public relations and leadership towards managing meaning and directing activity. To Hallahan (1999), a public relations scholar, “Framing is a critical activity in the construction of social reality because it helps shape the perspectives through which people see the world” (p. 207). Fairhurst and Sarr (1996), leadership experts, drew on Entman for their definition: “Frames determine whether people notice problems, how they understand and remember problems, and how they evaluate and act on them.” (Fairhurst & Sarr, 1996, p. 4). Kuypers (2009), a media and political scholar and proponent of rhetorical framing, described framing as the process of presenting facts in a way that makes people interpret information a certain way. Regardless of definition, it is important to recognize that frames are socially derived and co-constructed, that is, they are created by people, through language, and have shared meaning.

...individuals and groups construct ‘frames’ or lenses through which to interpret the content of communication. They will hold these frames more or less in common with other individuals and groups and the more these frames are shared or understood, the greater the chance of a common understanding being reached. (Gregory, 2000, p. 101)

The above quote by Anne Gregory, a public relations expert, captures the social origin as well as the collective creation and understanding of frames; but how do they work?

A commonly used metaphor to describe how frames work is that of a picture frame that highlights certain elements of a painting whereas another frame highlights other elements. In this manner framing can impart meaning by inclusion, omission, and emphasis (Fairhurst & Sarr, 1996; Hallahan, 1999). For example, a red frame emphasizes red features in a painting while deemphasizing yellow features and vice versa. Hence, the inclusion of farming and exclusion of food processing in a food system frame are framing processes. Another way to view frames, is as mental shortcuts that people draw on to understand the world around them (FrameWorks Institute, 2001). A more evocative description is that frames are the equivalent of what people feel is “common sense” (Topos Partnership, 2010). Frames are based on what people have come to expect from past experience, including media exposure, and allow people to make quick decisions, either consciously or unconsciously, because they already have an answer (Auburn, Brown, & Grady, 2005a; FrameWorks Institute, 2005). For instance, the FrameWorks Institute (2005) found that policy makers are more likely to construct a policy based on their past experiences and what they have gathered through the media than by reading factual reports.

According to the FrameWorks Institute (2005), “Frames guide understanding, not facts, and when the two are in conflict, people ignore the facts” (p. 1). Auburn et al. (2005a), found

“Americans manage to remain blind to the real processes of food production and distribution – despite the central role of food in American life” (p. 2). Frames or mental models can be so powerful that people will not accept new information, and furthermore, will manipulate facts to fit their frame (Auburn et al., 2005a). For example, a frame called *That’s How My Ancestors Did It so It Must be Right* guides the thinking that the water bath method for preserving meat and fish is right despite the fact that scientists have proven that boiling water is not hot enough to denature the spores that cause botulism. This frame is so deeply ingrained that people not only ignore the facts, but they also convince themselves that the science must be wrong. Knowing how and why people think the way they do is invaluable in developing messaging that reframes issues to change perceptions and behaviour.

Reframing is about changing perceptions and the information presented thus far points to the need for changing perceptions regarding food processing. According to the FrameWorks Institute (2001), reframing is the provision of new frames that provide people with a different way to process information. The FrameWorks Institute (2001) contended that over time people develop habits of thought that result in “pictures in their heads” (p. 5) about issues, people and other things. These “pictures” are referred to as default, dominant, or internal frames, or mental modes or models (Fairhurst & Sarr, 1996; FrameWorks Institute, 2001): “When communications is inadequate, people default to the “pictures in their heads”, or existing frames. When communications is effective, people can see an issue from a different perspective, or alternative frame.” (FrameWorks Institute, 2001, p. 5). An example is that of FrameWorks Institute’s work on how American’s view food systems, which revealed that Americans do not understand how the food system works because of their default frames depicted by the metaphors *the Consumer*

Model and Modernism (FrameWorks Institute, 2008). In other words, Americans see themselves solely as consumers of products that come from stores and they believe the modern system that delivers products to the store will prevail, that is, the food system is just fine as it is. In order to reframe Americans' thoughts to garner public concern and support for viable food system development, FrameWorks Institute (2008) suggested the metaphor of a "Runaway Food System" (p. 3) to simplify the complex situation. This metaphor provides the mental image: "Americans need to retake control of this runaway food system before it does more damage to the foundations we depend on" (FrameWorks Institute, 2008, p. 3). While the FrameWorks Institute has done considerable work on how the American public frames food systems, an extensive review of the literature did not reveal similar work with regard to food processing, nor communications research with regard to the food processing industry in British Columbia. This study intends to fill this gap by focusing on understanding how leaders with influence in sustainable development issues frame food processing.

As noted previously, focussing on leaders is a recognized public relations strategy given the multiplier effect of their exerting influence over others. Furthermore, Fairhurst and Sarr (1996) contended that leaders lead by reframing their own internal frames. In other words, a leader will present (or omit) issues to the people she or he influences based on her or his default frames. It computes then, that if a leader's internal framing of farming is positive and of processing is negative, she or he would be more likely view farming-based activities as solutions to food systems problems. Persuading sustainable development leaders to recognize the importance of food processing will require reframing processing in a manner that changes their default thinking (Feenstra, 2002; Fresco, 2009). The first step, and the goal of this study, is to

understand how and why leaders currently frame food processing the way they do. How frames are discovered is the next, and final, section of this literature review.

Frame or framing analysis, a subset of the broad category of discourse analysis, presents a myriad of different ways (and terminologies) to study how people make sense of the world. For this study, I sought a method suited to public relations. Kirk Hallahan (1999), a public relations scholar argued “Framing decisions are perhaps the most important strategic choices made in a public relations effort” (p. 224). In addition, Hallahan (1999) contended that framing theory incorporates a rhetorical approach when applied to public relations. Jim Kuypers (2010), scholar renowned for his work in political communication, advocated the rhetorical approach to frame analyses. Kuyper’s work is based on that of Robert Entman (1993), who theorized the four functions of a frame: Frames define problems, diagnose causes, make moral judgements, and suggest remedies. In other words, people use frames to compartmentalize, rationalize, and respond (or not) to perceived issues. For example, in their work on understanding perceptions of food systems, Auburn et al. (2005a) found that the food system was viewed as out of control (problem), that science and technology were considered at fault (cause), that the situation was viewed negatively (judgement) but people felt they should be grateful for all of the food provided by the system (solution). Auburn et al. (2005a) named this the *Modernization* frame and theorized that this frame enabled people to justify inaction – yes there was a problem, but it was out of their hands, and there was lots of food, so there was no need to do anything. The insights gained through Auburn et al.’s (2005a) study were possible through rhetorical frame analysis, that is, interpreting what people say.

Unlike framing analyses conducted with a social science lens, which are typically based on quantitative research, a rhetorical approach is qualitative and presents tremendous opportunities for gathering insightful intelligence (Kuypers, 2010). Rhetorically-based framing research relies on a method Kuypers (2010) denoted as *criticism* to “promote greater appreciation and understanding” (p. 290). According to Kuypers (2010), both rhetoric and criticism are “arts” as opposed to “scientific endeavours” and as such allow for more flexibility and deeper insights than can be gathered through a systematic scientific process. Kuypers uses the example of his rhetorical analysis of President Bush’s speeches versus the scientific content analysis employed by other researchers. By interpreting the context rather than just quantifying the content, Kuypers was able to gather much more insightful information. Also based on a rhetorical approach, cognitive (frame) analysis is a method that looks at the differences between rhetoric and reason to determine “how people think rather than what they think” (Auburn et al., 2005a, p. 6). Van Gorp and van der Goot (2012) described the rhetorical mode as “framing devices” evidenced by explicit identifiers; words, phrases and metaphors, and “reasoning devices” as the conscious and unconscious patterns of thought that lead people to their construct of “common sense”. As described next, this study builds on the work of Auburn et al. (2005a) and Van Gorp and van der Goot (2012).

Auburn et al. (2005a) used cognitive frame analysis to study how Americans think about the food system. Auburn et al. (2005a) conducted semi-structured interviews with thirty people representative of the American public and confirmed that Americans were essentially “blind” to the food system due to their default “little picture” thinking. Auburn et al. (2005a) identified two dominant frames, metaphorically labeled as, *Modernization* and *Lived Experiences*, that they

claimed distracted Americans from thinking about food systems. Metaphors, in addition to often being used to describe frames, also signify the presence of frames by contextualizing patterns of thought (Kuypers, 2009). For example, Auburn et al. (2005a) described the *Lived Experience* metaphor as “little picture” thoughts that people revert to, based on their own life experiences. Auburn et al. (2005a) identified seven “little picture” default frames that have bearing on how Americans understand the food system: *The Cook and the Store; Personal Health as Good Individual Food Choices; Healthfulness is in the Ingredients, not the System; Food is About Being Nurtured; The Consumer Stance; The Decent Merchant; The Fantasy Food System*. Seven years later, Van Gorp and van der Goot (2012) studied the framing of food systems from a different perspective.

Building on Auburn et al.’s (2005a) research, Van Gorp and van der Goot (2012) used inductive frame analysis to identify frames that food system stakeholders were addressing with their messaging. Inductive frame analysis involves working from the data towards discovering a frame whereas deductive analysis involves analysing data against existing frames. Van Gorp and van der Goot’s (2012) method involved looking at culturally embedded frames evidenced by conscious and unconscious messaging that demonstrated cultural commonalities. Relatedly, my study sought to identify cultural commonalities among sustainable development leaders and whether or not this group’s framing of food processing matched frames guiding public perceptions regarding food systems. Van Gorp and van der Goot (2012) raised concerns regarding researcher objectivity and the applicability of frames to other issues. I addressed these concerns by developing systematic approaches to identify participants, analyse data and test newly identified frames for relevance to other issues. The six frames identified by Van Gorp and

van der Goot (2012) were: *The Responsibility frame, the Undermining of Foundations frame, the Frankenstein frame, the Natural Goodness frame, the Progress frame and the Good Mother frame*. Together, the methods used and the thirteen frames (Table 1) discovered by Auburn et al. (2005a) and Van Gorp & van der Goot (2012) form the basis for the frame analysis conducted in this study as will be outlined in the Methods section.

Summary

Despite being a vital contributor to sustainable development, the dearth of scholarship on food processing, as an aspect of sustainable development, indicated that food processing communication is a gap that warrants investigation. Furthermore, recent research has highlighted the need to include *all* food system actors in order to achieve *viable* food system development (Lang & Barling, 2012; Raja et al., 2018; Zurek et al., 2018). Implied throughout the literature was the necessity for the food processing industry to invest in public relations in order to dispel negative perceptions and garner support. To that end, the literature identified framing as one of the most important communication tools in the public relations toolbox towards understanding stakeholders and reframing issues for social change (Gregory, 2000; Hallahan, 1999; Knight, 1999). A broad review of framing literature revealed wildly disparate views and deployment of frame analysis, from which I identified forms of frame analyses relevant to public relations and leadership. As such, this study sought determine how sustainable development leaders framed food processing by building on the methods employed by Auburn, Brown, and Grady (2005a) and Van Gorp and van der Goot (2012) in their work regarding the framing of food systems and as outlined in the Methods section that follows.

Methods

My research sought to determine how leaders, with influence over people, projects, and programs related to sustainable development, frame food processing. The following sections describe my research design, methods of data collection, and methods of analysis.

Research Design

In conducting this study, I took a constructivist view, which recognizes that meaning is a social construct that individuals derive from their own experiences and understandings (Merrigan, Huston, & Johnston, 2012). Guided by the interpretive paradigm, I sought to understand how food processing is framed by influencers in the context of their work towards sustainable development. I acknowledged my own experience, perceptions, and values and took a collaborative stance during the data collection process. In other words, I positioned myself and my research subjects as equals working collaboratively to co-construct shared meanings, towards viable sustainable development. This qualitative study utilized semi-structured interviews of influential leaders to collect in-depth, descriptive data regarding influencers' perceptions of food processing.

Methodologically, I utilized a discourse analysis framework to identify influencers' framing patterns. Discourse analysis is a widely used research method that involves the analysis of written or spoken communication. There are many sub-categories of discourse analysis all of which embrace the epistemological concept that knowledge is socially constructed through language (Merrigan et al., 2012; Fairhurst & Sarr, 1996). I based my discourse analysis on a combination of Richards' (2009) coding analysis, Entman (1993) and Kuypers' (2009) framing analysis, Auburn, Brown, and Grady's (2005a) cognitive analysis, and Van Gorp and van der

Goot's (2012) inductive frame analysis. Transcribed data was coded by attribute, topic, and then analytically. First, I reviewed participants' attributes based on their responses regarding their role. For all other topics, I combined cognitive analysis, a method that looks at the differences between rhetoric and reason (Auburn et al., 2005) with Entman (1993) and Kuypers' (2009) framing analysis to tease out subjects' framing of problems, causes, judgments, and solutions with regard to topics surrounding food processing. Borrowing terminology from Van Gorp and van der Goot (2012), I called the resultant information bundles "frame packages". Using this technique I deductively analysed my data against thirteen default frames identified by Auburn et al. (2005) and Van Gorp and van der Goot (2012) in their work on the framing of food systems (Table 1). I then inductively analysed residual data and identified two additional frame packages. In addition, I provided a brief analysis of individual participants. The combination of data analysis techniques revealed nine distinct frame packages that guide how the sustainable development leaders interviewed in this study frame food processing.

Data and Data Collection

In order to meet my research objectives, this project demanded data that provided insights pertinent across British Columbia. For this reason, leaders representing fields feeding into province-wide sustainable development initiatives were selected to participate in semi-structured interviews. Based on recommendations of other scholars, leaders were recruited from the fields of community planning, economic development, education, funding, and health (Day Farnsworth, 2017; Feenstra, 2002; Feenstra, 1997; Fresco, 2009; Pothukuchi & Kaufman, 2000). As leaders, the targeted individuals met "elite" criteria outlined by Odendahl and Shaw (2001) in that they could all be characterized as individuals in positions of power and possessing greater

knowledge and experience than the general public. Also, as leaders, the selected interviewees had influence over projects and programs in the realm of sustainable development in British Columbia and beyond. As outlined in the literature review, influencers frame issues based on their own mental models in order to deliver on organizational goals (Fairhurst & Sarr, 1996). The interviewees confirmed their power and influence over others and it is reasonable to assume that how they frame food processing has a bearing on the inclusion, or exclusion, of food processing in their work regarding sustainable development.

Drawbacks of targeting elites include that they are often difficult to access and have limited time (Odendahl & Shaw, 2001). Fortunately, the combination of my professional network and subject matter expertise allowed me to purposively recruit six leaders willing to invest 30–60 minutes of their time by participating in my study. While some may question the adequacy of my data collection, I defer to the work of the FrameWorks Institute (Auburn & Grady, 1999) and Cleary, Horsfall and Hayter (2014). The FrameWorks Institute, a renowned communications research firm, drew *national* insights for the study “American Understandings of the United States’ Role in the World” through semi-structured interviews of fifteen people (Auburn & Grady, 1999). Cleary et al. (2014) argued that an experienced interviewer with a succinct research topic and purposively selected, homogenous group of research subjects can extract quality data for analysis from a small number of interviewees. Furthermore, Cleary et al. (2014) contended that sufficient data has been collected once themes become repetitive. In the case of my study, by the end of six interviews it was clear that interviewees were consistent in their framing of food processing. Moreover, the combination of the interviewees’ and my own knowledge and experience allowed us to “cut to the chase” immediately, familiarity with each

other's terminology, and focused research questions ensured that each interview was highly focussed and resulted in the collection of quality data in a timeframe acceptable to busy leaders.

Target interviewees were selected either directly or indirectly through my professional network and subjected to a form of stakeholder analysis prior to being invited to participate. Adapted from Connell's (2016) work with regard to influencers' power over land use, a stakeholder profile template (Appendix A) was developed that allowed me to systematically review the influence and sustainable development interests of targeted participants. For instance, in addition to roles and organizational mandates, the scope and levels of influence were assessed for each interview candidate. All targeted interviewees met desired research criteria and were sent invitations via email. Invitations were purposefully vague, alluding to research about "food systems" without mentioning the term "food processing" in order to explore interviewees "unprocessed" framing of the term. In other words, I did not want interviewees to ruminate about processing and reframe it in a manner they thought would be more palatable to me. A sample invitation is included in Appendix B. Invitations were sent to six people. Three accepted the invitation without question and three questioned why they were selected. A second explanatory email sent to those that questioned their inclusion resulted in their participation. Four interviewees were part of my existing network (professional acquaintances), one was recruited through another contact, and one was recruited as a result of a community connection. Upon accepting my invitation, each participant, received email instructions to finalize meeting details.

The majority of interviews were in-person conducted at the interviewee's place of work and followed a standardized procedure. The standardized procedure was piloted on two acquaintances to ensure optimal performance during the study. Five interviews took place in

Victoria, BC, Canada and one interview was done over the telephone, due to the participant's location in northwest BC. Regardless of interview format, upon meeting the interviewee, I introduced myself as a communication researcher experienced in the food processing sector seeking to understand how food processing is perceived in the field of sustainable development. I obtained informed consent by explaining that I was bound by Royal Roads University Research Ethics Policy and by providing interviewees with an informed consent document (Appendix C) that they read and signed prior to beginning the interview. The informed consent document was emailed just prior to the telephone interview to prevent the participant from ruminating and thus possibly reframing their perceptions based on the research details explained therein. All of the participants signed the informed consent form and were advised that they could withdraw from the study at any time. A copy of the form was left with them, and the signed copy taken for my files. Interviews began as soon as informed consent forms were signed.

Semi-structured interviews and an invitational rhetoric approach were selected as the optimal data collection methods to explore influencers' perceptions regarding food processing. Public relations experts Gregory (2000), and Daymon and Holloway (2010) promoted one-to-one, semi-structured interviews as a preferred method to elicit in-depth qualitative data consistent across interviewees. This method required that I develop an interview guide, a sample of which is included in Appendix D. The interview guide insured that I asked the same questions of all participants, while the semi-structured format permitted flexibility and the ability to dive deeper into areas of individual interest. Invitational rhetoric was theorized by Foss and Griffin, who saw communication as an invitation to collaborate, offering expanded opportunity for understanding (Foss & Foss, 2011). The premise of an invitational approach is to achieve mutual

understanding by inviting participation and exchanging ideas towards a common goal whereas a traditional rhetorical approach is “top down” with the speaker attempting to persuade the audience (Foss & Foss, 2011). Combining semi-structured interviews with an invitational rhetoric approach afforded me consistency across interviews, freedom to share information, and explore interviewees’ experiences and knowledge (Daymon & Holloway, 2010; Foss & Foss, 2011; Merrigan et al., 2012; Qu & Dumay, 2011).

Each interview began with my asking for permission to record the interview, a request that was agreed to by all subjects. Once the recording device was turned on, I reintroduced myself and the research project, and explained that the interview was meant to be collaborative or a mutual learning opportunity. Then, each interviewee was asked six questions:

1. Tell me about your role as #####.
2. In your opinion, how does food fit into your field of work?
3. What does the phrase “food processing” mean to you?
4. How do you feel about processed food?
5. What do you think has caused you to feel this way?
6. What else do you think we should discuss about food processing?

The opening question was experience-based, meant to make the participant feel comfortable and confirm their influence, while the other questions were structural, designed to elicit data specific to this study (Daymon & Holloway, 2010). As per Daymon and Holloway (2010), I used active listening skills throughout the interviews and invited participants to elaborate on their answers in order to obtain fulsome descriptions. Interviews ranged from 30 to 54 minutes, with the average interview lasting 42 minutes. The telephone interview was the shortest and the recording device

failed part way through. Fortunately, I took detailed notes throughout the call. Thank you notes were sent to all participants via email within three days of their interview. All interviewees thanked me for inviting them to participate and requested access to the study once complete. In order to maintain anonymity and traceability, names were coded and line numbers from interview transcriptions were referenced when interviewees were quoted in this document.

Data Analysis

The interviews generated a mass of data requiring transcription, coding, and analysis. I personally transcribed the interviews to learn the process as well as to immerse myself in the data (Merrigan et al., 2012). Once transcribed, the interviews presented 73 pages of rich but messy data. I utilized a discourse analysis framework to extract meaning from the data as this is a widely used research method involving the analysis of written or spoken communication to identify the deeper systems of meaning that inform the text. An umbrella term, discourse analysis encompasses many sub-categories, all of which embrace the epistemological concept that knowledge is socially constructed through language (Merrigan, Huston, & Johnston, 2012; Fairhurst & Sarr, 1996).

I based my discourse analysis on a combination of Richards' (2009) coding analysis, Entman (1993) and Kuypers' (2009) critical rhetoric frame analysis, Auburn, Brown, and Grady's (2005a) cognitive (frame) analysis and Van Gorp and van der Goot's (2012) inductive frame analysis. Data was coded by attribute, topic and then analytically. First, I prepared a comparative table (Appendix E) of attributes that identified criteria potentially relevant to the study. For instance, I noted how the interviewee was recruited, where they were located, and what format the interview was (in-person, or telephone). Similarly, the participants' sex or

gender identity, approximate age, place, and scope of work were recorded and analysed to determine how these attributes impacted the study and what insights were provided with regard to reframing food processing. Next, the transcribed data was categorized by topic, a topic being an issue common to several or all participants. Initially, 25 topics were identified based on common themes across the interviews. After re-coding, the data was consolidated into 21 topic-based categories. Once categorized by topic, I drew on a combination of Entman (1993) and Kuypers' (2009) framing analysis, Auburn, Brown, and Grady's (2005a) cognitive analysis, and Van Gorp and van der Goot's (2012) inductive frame analysis to create frame packages. These packages indicated the subjects' collective framing of problems, causes, judgments, solutions (Entman's four "functions" of a frame) and, from those deductively, and then, inductively, identified the dominant frames that guided participants with regard to food processing.

In this final phase of data analysis, I began by analysing data coded by topic and then revisited the raw data to interpret participants' rhetoric and reasoning. Rhetorical devices were evidenced by the words, phrases, and metaphors used by interviewees and reasoning devices were the conscious and unconscious patterns of thought that I interpreted as contributing to interviewee's thoughts. My deductive analysis revealed that my subjects' frames matched seven of the 13 frames identified by Van Gorp and van der Goot (2012) and Auburn et al. (2005a). The 13 frames against which I compared my data are presented in Table 1. I then inductively analysed residual data and identified an additional two frame packages unique to my study. As per Van Gorp and van der Goot (2012), I tested my inductively derived frames for "level of abstraction" by confirming that they could be applied to unrelated issues (p.133). For instance, Van Gorp and van der Goot (2012) demonstrated how *The Frankenstein frame* also applied to

cloning. The combination of data analysis techniques ultimately revealed nine distinct frame packages that guide how the sustainable development leaders I interviewed framed food processing. The data collected through this research was eye-opening; its analysis irrefutably answered my research question: *How is food processing framed by sustainable development leaders?* and is presented in the Presentation of Findings section.

Table 1

Frames identified by Van Gorp and van der Goot (2012) and Auburn, Brown, and Grady (2005) in their research regarding food systems

Metaphorical Description	Summarized Description	Data Source	Researchers
The Responsibility frame	Constructed around the core value of responsibility for others	Textual and visual data developed by food system stakeholders for the public	Van Gorp and van der Goot (2012)
The Undermining-of-Foundations frame	Focused on the causes of ecosystem breakdown		
The Frankenstein frame	Alludes to the production of unnatural foods		
The Natural Goodness frame	The premise that nature provides the best products		
The Good Mother frame	Two meanings: -thankfulness for the social pleasures of food -thankfulness for the bounty of food provided by the globalized food system		
Modernization/The Progress frame	The belief that science and technology is unstoppable and will provide solutions	Textual and visual data developed by food system stakeholders and interviews with American citizens	Van Gorp and van der Goot (2012); Auburn, Brown, and Grady (2005)
The Cook and the Store frame	The understanding that the food system is comprised of the store and where it is cooked	Interviews with American citizens	Auburn, Brown and, Grady (2005)
Personal Health as Good Individual Food Choices frame	Healthy eating is the result of individual choices, not the system		
Healthfulness is in the Ingredients, not the System frame	Bad ingredients are what requires changing, not the food system		
Food is About Being Nurtured frame	Emotional response to food regardless of origin		
The Consumer Stance frame	Inherent trust in products without thought of origin		
The Decent Merchant frame	The belief that merchants are trustworthy		
The Fantasy Food System frame	Unrealistic visions of the food system the result of marketing and the media		

Ethics

Ethics approval for research involving human subjects was requested and granted by the Royal Roads University Research Ethics Policy on September 19, 2018. To elaborate, interview participants' identities were kept confidential throughout the study with only the researcher knowing who was interviewed. During data transcription, coding, and analysis participants were referred to by researcher assigned metaphorical names to maintain anonymity. All recorded and textual data is stored electronically on a password protected hard drive. Hard copy data is stored in a locked filing cabinet located at the researcher's home office. The data will be destroyed four years (or sooner) after the completion of the study. As mentioned previously, informed consent was received from all participants. All participants were advised of their ability to withdraw from the study at any time and were made aware that if they chose to withdraw any data collected from them would not be included in the study.

Presentation of Findings

The Presentation of Findings, also referred to as the Results section, is the core of my thesis and contains the key findings of the study and their analysis. This section is divided into two parts: Setting the Stage and Frame Analysis. Under Setting the Stage I discuss the data collection process and participant attributes and how these impacted the research. The Frame Analysis portion presents the detailed findings of deductive, inductive and cognitive frame analysis of individuals.

Setting the Stage

Reflecting on the data collection process and understanding participants' roles and attributes sets the stage for the ensuing frame analysis, as well as for future studies. First, I

provide reflections on the data collection process, specifically the recruitment and interview processes, and the value of an invitational rhetorical approach. Next, attributes of relevance to the study including demographics, geography, and roles are reviewed with regard to their impact on the research.

Recruitment and interview process. While how the subjects were recruited did not have an appreciable effect on data collection or analyses, the format of the interview did. As outlined in the methods section, participants were recruited through my existing network and screened utilizing a stakeholder profile tool adapted from Connell (2016). The screening process ensured that all interviewees met research requirements. I had prior professional interactions with four of the participants and two of the participants were new connections. Interview format was either in-person or by telephone. Regardless of prior interaction or interview format, I was able to develop a collaborative rapport with all the research subjects, although less so with the person interviewed over the telephone. That the telephone interview was less informative correlates with Merrigan, Huston, and Johnston's (2012) findings that it is typically more challenging to build trust and prompt fulsome responses over the telephone than with face-to-face interviews. Duration wise, the telephone interview was the shortest (30 minutes), with the average interview lasting 42 minutes. Of interest, the shorter (in person) interviews were those with people I was familiar with, and the longer ones, with people less familiar. With or without prior interaction, the value of face-to-face interaction towards establishing a collaborative environment was clearly evident.

Invitational rhetoric (collaborative) stance. The collaborative stance afforded by the invitational rhetoric approach (Foss & Foss, 2011) resulted in immediate rapport between the

interviewees and the researcher culminating in solutions focused dialogue. All participants were genuinely interested in the research topic and were appreciative of the information provided with regard to the BC food industry. On the other hand, I, as the researcher, learned a tremendous amount from the participants. For instance, I learned about the shifting responsibilities in government and the administrative burden placed on academics including the breadth of participants' reach and about the extremely broad scope of leaders in academia, economic development, funding, health, infrastructure development, and sustainable development. The interviewees' curiosity and interest in this study, the food processing industry, and viable food system development is evidenced in the following interview excerpts:

[We need to] reframe the food system in general and how it really incorporates parts of the systemI really like the title because it is like How Does Food Get to the Table? - It's everything in a nutshell. (The Collaborator, Line 527)

...creating local capacity and local resiliencies is going to be very good for adaptation in the future. (The Systems Thinker, Line 369)

It is important for people to have more awareness of where their food comes from. (The Traditionalist, Line 177)

I hadn't really thought about it before but some work on enhancing people's understanding of the value of the processing industry [is necessary].

(The Specialist, Line 252)

... food security in British Columbia it's pretty weak. Especially on the island it is.

There's really only one product that we're food secure on and that's eggs and milk and you know, not even cheese. So otherwise, every other product has to, you know, we get

some vegetables, we get some fruit, we get some meat, but most of it is coming from off-island. So are there ways that we can actually take that food chain and keep it here or enhance it here? (The Governor, Line 294)

My final comment is thank you. You've caused me to think differently and simply by asking the questions it has made another piece of the puzzle more visible to me. So that's helpful. (The Educator, Line 544)

The above excerpts clearly demonstrate the sustainable development leaders' perceptions that food processing is a gap and that new information is required in order to address the problem.

As much as approaching the interviews from a collaborative stance provided a tremendous benefit in terms of sharing of information towards common goals, there was a potential drawback to this approach. In their desire to help, the participants may have tempered their responses in order to be more collaborative. This collaborative thinking may have masked their default framing of food processing, perhaps providing me with more positive perceptions than a more traditional, question and answer interview approach may have garnered. On the other hand, the collaborative, conversational approach afforded me the opportunity to test reframes, or communicate the food processing industry differently than interviewees had been exposed to previously. According to the FrameWorks Institute (2001), people will perceive issues differently if communicated effectively. Based on the interviewees' demonstrated curiosity and interest in my study, I established that the sustainable development leaders interviewed were open to new information that reframed the food processing industry positively. For instance, interviewees were unaware of the small size of BC food processing companies and with this new knowledge understood why BC processors struggle to compete in the globalized

food system. By stimulating *solution-oriented* dialogue, the invitational rhetoric approach served this study well by providing tremendous insights as to how to reframe food processing in order to change negative perceptions.

Attributes. Participant attributes relevant to the study were identified (Table 2) and are reviewed based on demographics, geography, and participants' roles. In order to retain anonymity, I characterized my research subjects as follows: The Educator, The Governor, The Systems Thinker, The Collaborator, The Traditionalist, and The Specialist. These metaphorical names are of my invention; however, they do, in essence, "frame" the participants based on their dominant responses to interview questions.

Demographics. While participants were not asked explicitly for demographic information (age, sex, ancestry and occupation), a brief analysis of the impact of demographics on this study is provided based on my observations. With regard to age, it is estimated that all subjects were in the 40-50 age range with the exception of one in the 30-40 group. The youngest subject had a young child and was also located in a remote region, both of which appeared to contribute to a more "traditional" perspective regarding food. This traditional perspective was manifested by the participant's view that food should be grown, harvested, and prepared at home. Sex-wise, four participants were female and two were male. Sex did not appear to affect how food processing was framed. All subjects were assumed to be of European ancestry, a finding that deserves investigation with regard to next steps. For example, *Are white people with European ancestry representative of leaders in sustainable development?* and *Is food processing framed differently by people from different cultures?* In terms of geography, all participants were in management level positions, having leadership roles with broad geographic scope.

Table 2

Comparison of Interviewee Attributes

Attribute	Interviewees					
	The Educator	The Governor	The Systems Thinker	The Collaborator	The Traditionalist	The Specialist
Recruitment	Connection(new)	New Contact	Connection(new)	Connection(> 1 year)	New Contact	Connection(> 5 years)
Location	Victoria	Victoria	Victoria	Victoria	Northwest BC	Victoria
Interview format	Face-to-Face	Face-to-Face	Face-to-Face	Face-to-Face	Telephone	Face-to-Face
Sex	Information withheld to maintain anonymity					
Age	40-50	40-50	40-50	40-50	30-40	40-50
Ancestry	European	European	European	European	European	European
Interview length	43:51	54:01	48:35	42:51	30 (approx.)	31:14
Position	Professor and Director	Executive Director	Professor and Director	Director	Manager	Director
Organization	Royal Roads University	Province of BC	Royal Roads University	Funder	City < 15,000	Province of BC
Role	Administrator, Instructor, Researcher	Administrator, funder	Administrator, Instructor, Researcher	Administrator, funder	Administrator	Administrator, funder
Field	Leadership	Infrastructure, Community Dev.	Sustainable Development	Funding, Community Development	Economic Development	Health
Mandate	Education	Public Welfare	Education	Community Wellbeing	Growth	Public Welfare
Type of influencer	Academic	Government	Academic	Funder	Government	Government
Power	Decision maker, advisor, supervision	Decision maker, supervision, funder	Decision maker, advisor, supervision	Decision maker, advisor	Decision maker, information provider	Decision maker, supervision, funder
Scope of influence	Curriculum, Instruction, Research	Governance, Financial	Curriculum, Instruction, Research	Financial, policy	Education of potential investors	Policy, legislation
Level of influence	Broad	Broad	Broad	Broad	Limited	Broad
Involvement in SCD	Informed	Consulted	Consulted	Consulted	Consulted	Informed
Policy affiliation	All	Sustainable Development	Sustainable Dev., Education	All	Economic Development	Healthy eating, food security, education
Geographic scope	Global	Provincial	Global	Provincial	Regional	Provincial
Alliances	Academia	Government	Academia	Broad	Local Government	Government

Geography. Without exception, all participants met the recruitment criteria of having provincial or regional scope, with several having influence beyond British Columbia. Five were located in Victoria and one in northwestern British Columbia and in their roles, they influence activities and projects regionally, provincially, and internationally. Examples include: The academics teach people and collaborate with researchers from all over the world; the funder works with funding agencies and researchers from across Canada; the government representatives, in addition to their provincial and regional influence, also have influence in federal initiatives such as national healthy eating guidelines, federal infrastructure development

and trade programs. The greatest difference in perceptions between participants was that of the Victoria residents versus the northwestern BC representative (The Traditionalist, and this may also be due to them being the youngest participant and the parent of a young child). As alluded to previously, the Traditionalist was the most *old-fashioned* in their perceptions regarding food as evidenced by the excerpt:

People in the North think a lot about food and where it comes from. We are concerned about being self-reliant because we cannot rely on getting food from other areas. To me it means processing food myself to make sure I have food all year round. We hunt and then freeze and preserve meat, drying, canning for year-round consumption. We buy bulk quantities of other foods and preserve them so we have food available throughout the year. Gathering, processing food is a community activity. (Line 154)

This brief review of the general attributes of the research participants provides a glimpse as to how different attributes affect leaders' frames. Further research is required to ascertain if ancestry, cultural background and geographical region have a bearing on sustainable development leaders' mental models with regard to food processing. On the other hand, this study confirmed that the research participants' roles do influence sustainable development. Given that leaders frame issues based on their default models (Fairhurst & Sarr, 1996), how these leaders frame food processing will influence the inclusion or exclusion of food processing from their work (Figure 1).

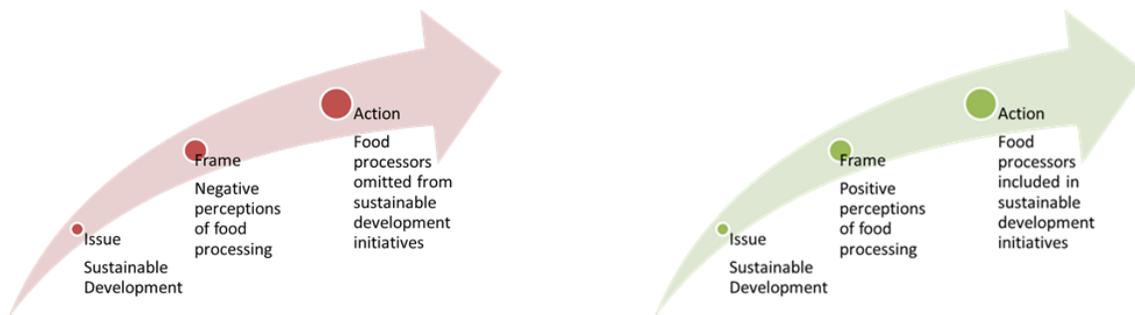


Figure 1: How framing can affect leaders' actions

Food processing and interviewees' work. None of the participants felt that food processing played a role in their work with regard to sustainable development; however, in the course of discussion, they agreed that it could. Responses to the first interview question “Tell me about your role” confirmed that all participants have upper management level roles and have influence in, and could have an influence over, the inclusion of food processing in sustainable development. For instance, the academics could include food processing in their instruction and in research regarding leadership and sustainable development. Leaders in economic development and funding could prioritize food processing in planning objectives and in community related projects. Finally, food processing could be included in healthy eating and infrastructure development program planning. However, based on this study, participants' current default thinking, covered in the next section on Frame Analysis, precludes food processing's inclusion in their work.

Frame Analysis

Textual data derived from the transcription of interviews was analysed deductively to determine match with frames discovered by Auburn, Brown, and Grady (2005a) and Van Gorp and van der Goot (2012) (Table 1) and inductively to uncover new frames. Deductively derived frames and frame packages are presented first and are followed by inductively derived frames.

Deductive frame analysis. Seven dominant frames were identified through deductive analysis. As mentioned previously, deductive analysis involved the development of frame packages based on the thirteen frames identified by Auburn et al. (2005a) and Van Gorp and van der Goot (2012) and on the interviewees' dominant default frames (Table 1). Deductive frame analysis involved comparing data gathered in this study against existing frames. Dominant default frames, held by the majority of participants, matched seven of the frames identified by Auburn et al. (2005a) and Van Gorp and van der Goot (2012) in their work regarding public perception of food systems. These results suggest that leaders in sustainable development have similar frames about food processing as the general public does with regard to food systems. While this study did not delve into why the other six frames identified by Auburn et al. (2005a) and Van Gorp and van der Goot (2012) were not exhibited by sustainable development leaders, I suspect that this may be due to the status of the participants (leaders as opposed to the general public) and the nature of the enquiry (food processing versus food systems). Matching frames are listed below and detailed frame packages along with quotes and a discussion of results are provided for each frame. As *reframing* is the topic of future study, only preliminary thoughts on reframing strategies are provided. These thoughts are based on participants' receptiveness to new information provided during the interviews.

1. *Modernization or Progress frame,*
2. *Undermining of Foundations frame,*
3. *The Frankenstein frame,*
4. *The Cook and the Store frame,*
5. *Consumer Stance frame,*

6. *Personal Health as Good Individual Food Choices frame*, and
7. *Fantasy Food System frame*.

The Modernization frame (Progress frame). The *Modernization frame* reveals the construction of dominant default understandings that equate food processing to modernization and the “progress” afforded by the globalized food system. Viewed negatively, there was a general resignation that food processing and the globalized food system are a fact of life. Concerns with food processing centre on corporate greed, lack of trust, and the production of unhealthy products. These sentiments were anticipated based on the literature and are captured in the statement:

Their job is to make money, ours is to make healthy food available.

(The Specialist, Line 323)

Participants revealed that their concerns about food processing and processed food were largely due to media coverage and personal experience, which are in keeping with the findings of the FrameWorks Institute (2001). Although not explicitly stated, all participants benefit through the access and consumption of inexpensive processed food made possible through modernization. Hence a “solution”, or a way to accept modernization, is gratefulness for the availability of a wide variety of food (Auburn et al., 2005a). In the words of a participant:

...in the global food system there's tons of food processing that happens that's like associated very negatively, like highly processed foods and a lot of the food that we buy in the grocery other than the produce section and even there there's been processing to some extent. Like everything we're getting in the store it's been processed, right?

(The Collaborator, Line 230)

Also in concert with Auburn et al.'s (2005a) findings were individuals' opposing views regarding similar issues. For instance, one participant indicated that local production was "backward" and farmers markets were "old school" but later mentioned the "ridiculousness of centralization" as raw goods leave regions and are shipped back as processed products. Similarly, participants held contrasting views with regard to climate change. For instance, one participant felt food production was a leading contributor, while another felt the more efficient modernized food system was less environmentally damaging.

I don't think people actually understand that food consumption and where we get our food from is the number one contributor to climate change.

(The Governor, Line 541)

There's research that says otherwise, very efficient trucks bringing from California up to BC use less emissions than someone grotty old diesel pick up doing local deliveries.

(The Systems Thinker, Line 333)

Contradictory perceptions are indicative of mis- or uninformed default thinking (Auburn et al., 2005).

All of the above findings are consistent with those of Auburn et al. (2005a) and Van Gorp and van der Goot (2012) in their identification of *The Modernization or Progress frame* as a dominant frame in their work on the public's framing of food systems. Based on sustainable development leaders' default thinking, BC food processors are part of the modernization problem. Food processors are viewed as untrustworthy and as profit driven producers of unhealthy foods. Reframing strategies would include differentiating BC food processors from large multinational companies, emphasizing contributions BC processors make to local

communities, and their focus on environmental stewardship and the production of healthy foods.

The rhetorical and reasoning devices contributing to the *Modernization frame* package are summarized in Table 3.

Table 3

The Modernization Frame (Progress Frame) Package

Rhetorical and Reasoning Devices					Example
Problem	Cause	Source	Judgement	Solution	
The globalized food system is unstoppable and is here to stay	Lack of faith in the motivations behind the science and technology in modern food production	Media, Research	Negative, Resignation	Gratitude for the bounty afforded by progress	Mass production is more efficient, results in fewer emissions than local production

The Undermining of Foundations frame. This frame is based on the metaphor that the world around us is falling apart (Van Gorp & van der Goot, 2012). In this default mindset, the interviewees viewed the food processing industry as contributing to the demise of communities and the environment. On the other hand, farming was viewed positively.

The negative aspects of processed food are the disassociation people have with food.

They are losing awareness of what is going on, where their food comes from, how it is produced. (The Traditionalist, Line 182)

There is a perception and understanding about what processing means that's quite negative it's very different then from sort of how people value the farming industry.

(The Specialist, Line 262)

With regard to food processing, the *Undermining of Foundations* frame is definitively negative and is based on understandings derived primarily from the media. Media coverage of negative employment practices, the profit motivation of food processors, and the dire ramifications of eating processed foods contribute to this default view.

If I were thinking about it more deeply I would start to think you know I've never been in an industrial meat packing plant for example and I would start to think about those kinds of films where people are working in horrid conditions presumably and I would start thinking about ... how much choice people have, how much access to unions people may have, and how much access to other alternative job options. I would start to think about that part of the food chain and I would start to think about stereotypes that I have based on documentary films that I've seen and then I would probably have a great deal of empathy for those people. (The Educator, Line 372)

In addition, changes to lived experiences such as fewer family meals together and lost traditions of making food together shaped participants' understanding of what food processing means to them. The government representatives harboured negative sentiments regarding the food processing industry due to profit motives.

Negative sentiments regarding food processing are not the reason it is not a funded activity. It is the commodification of adding value and processing or profit motivation that excludes food processing. (The Governor Line 343)

Contradictorily, the Governor provided an example of a funded activity, a biomass energy project to convert energy from agricultural waste to power, that involved a partnership of government and private industry (profit driven farmers). In terms of solutions, participants'

rhetoric and reasoning centred around re-educating people about food production and the development of food processing and distribution infrastructure for community driven, not-for-profit food production. A summary of participants’ rhetoric and reasoning leading to the *Undermining of Foundations* frame are presented in Table 4.

In terms of reframing to counter the Undermining of Foundations frame, recommendations include positioning food processors as a vital component of viable food systems and sustainable communities. In other words, position food processors alongside farmers, and other food systems actors; all sharing a common goal: to feed British Columbians.

Table 4

The Undermining of Foundations Frame Package

Rhetorical and Reasoning Devices					Example
Problem	Cause	Source	Judgement	Solution	
Food processing industry disturbs the foundations of our communities and our ecosystems	Food processing industry is severing the connections between people and the environment	Media, Lived experiences	Negative	Community food production	Non-profit organizations producing food in government supported facilities

The Frankenstein frame. Operating under *the Frankenstein frame* the interviewees understood food processing as contributing to the manufacture of unnatural products that are bad for people. Also negative and similar to the *Undermining of Foundations frame*, this default mode of thinking is based on media and lived experience. Popular media was explicitly mentioned as a source of information for several of participants.

We should avoid processed food because that's the narrative that's around you know highly processed food is high in sugar is not healthy and the most raw form of food that you can access is the healthiest for us. (The Collaborator, Line 420)

Maybe it has to do with Michael Pollen's work? Processed food is bad.

(The Educator, Line 351)

As for lived experience, the first thing that came to participants' minds when asked for their thoughts regarding processed foods were familiar brands of highly processed food. However, upon self-reflection, all participants recognized that almost everything is processed and that their default thoughts may be inaccurate.

...if you just say to me processed foods my first thought is it's not something for me personally.

... I think clearly we need processors. (The Specialist, Lines 207 & 222)

Processed food the term has got a lot of baggage around it - I think of Velveeta cheese slices, Cheez Whiz and that disgusting stuff, to be to be biased. But processed food is just simply taking something from its natural existing state and adding something to it and changing it and processing could be as simple as slicing it. (The Governor, Line 333)

The rejection of initial thought upon reflection is common according Auburn et al. (2005a) and in this case bodes well for future reframing of food processing. However, implicit throughout the interviews were the thoughts that the unnatural production of food must be addressed to stop profit driven food processors from making bad food.

We are often caught in these kinds of dilemmas where we're trying to push forward a policy recommendation around healthy food and beverages and we are lobbied against by various players within the food industry. (The Specialist, Line 295)

Table 5 summarizes the rhetoric and reasoning leading to the *Frankenstein frame*.

The *Frankenstein frame* is indicative of a lack of trust in the food processing industry and warrants particular attention in reframing strategies. This frame may be addressed by distinguishing small BC processors from “big food” companies targeted by popular media, and emphasizing BC processors’ interests in the production of healthy, safe foods.

Table 5

The Frankenstein Frame Package

Rhetorical and Reasoning Devices					Example
Problem	Cause	Source	Judgement	Solution	
The food processing industry is leading us to doom	Profit driven food processors are ruining our food with science	Media, Lived experience	Negative	People, government must intervene	Government must impose regulations on food processors

The Cook and the Store frame. Auburn et al. (2005a) named this default way of thinking based on people’s “little picture view” that food comes from the store and then it is cooked. Having this understanding of where food comes from allows people to disregard other elements of the food system. In other words, food always being readily available from the store cognitively explains where it comes from, essentially erasing the need to know more about the food supply chain. That research participants’ default mode of thinking falls under *The Cook and*

the Store frame was evidenced primarily by what they did not articulate and their obvious lack of knowledge regarding food processing, as when asked “What is food processing?”:

Something that happens in between the original origin of the food and the consumption of the food. (The Educator, Line 212)

... unprocessed food, even though it still processed and in some places and in some cases it's very processed, like flour, I mean it's been through an awful lot of processing, but you wouldn't call it processed food because you still have to do stuff with it.

(The Systems Thinker, Line 436)

Of particular interest, processors were *never referred to as people*, nor were there any specific references to BC processor names. On the other hand, several participants mentioned personal relationships with farmers, whom they viewed as hard working, trustworthy individuals that struggle to make a living.

I have a couple of friends who farm on a smaller scale and they produce a lot of food and they work really hard. (The Systems Thinker, Line 200)

I empathize with farmers because I can picture actual people who are farmers, I can see the work that they do and it's more visible in my mind's eye ... I have a sense of what my friends who are farmers struggle to make. (The Educator, Lines 371 & 393)

As for shopping, participants mentioned specific retailers and by omission conveyed satisfaction with their food supply. For instance, there were no mentions of dissatisfaction with the availability, or the safety of food. All mentioned farmers markets with the implication that they presented a distribution “solution” in local food systems models; however, the Systems Thinker

demonstrated a broader understanding of the unviability of farmers markets as a food system solution.

Farmers markets are never going to succeed as part of a sustainable food system because they don't provide people with what they want which is being able to go somewhere and buying everything you need so you don't have to go multiple times to multiple stores.

(The Systems Thinker, Line 529)

In essence, the participants had a positive view of their experience with food that did not necessitate thinking beyond the store and their occasional interactions with their farmer friends. A summary of the *Cook and the Store frame* package is presented in Table 6.

Changing the positive view afforded by the *Cook and the Store frame* will be more challenging than changing negative perceptions that leaders recognize need to be addressed to achieve food system success. In other words, there is no compelling need to change something that seems to be working. Reframing strategies should focus on personalizing food processors, putting “a face to a name” as it were, creating narratives that demonstrate food processors’ contributions and challenges, and their role in viable food system development.

Table 6

The Cook and the Store Frame Package

Rhetorical and Reasoning Devices					Example
Problem	Cause	Source	Judgement	Solution	

Consumers have to accept what the food processing industry offers (good and bad)	Complacency, don't think about it, food is at the store	Lived experience	Positive	Thankfulness for the wide variety of foods available at the store	Limited understanding of food processing and its role in the food system
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The Personal Health as Good Individual Food Choices frame. Described by Auburn et al. (2005a) as people's understanding that individual choices and individual foods are the cause of unhealthy eating, this frame prevents people from thinking about food systems. Operating under this default mode causes people to lay blame on other individuals and ignore system-related problems. The relevance of this frame is that food processing is perceived as the creator of unhealthy products. Default thinking falling under this frame is manifested in rhetorical comments about the eating patterns of other people or communities of people.

Processed food is cheap and unhealthy, it is cheaper to buy processed food than to produce good food yourself. It is expensive to produce food, it takes a lot of effort. Most people don't want to work that hard. They would rather just go to the store and buy processed food. (The Traditionalist, Line 185)

When asked "Were remote First Nations communities self-sufficient at one point?"

It's always been challenging. I think they feed themselves but they don't feed themselves with vegetables and fruit. (The Specialist, Line 368)

Other manifestations of *the Personal Health as Good Individual Food Choices frame* were the lack of systems thinking with regard to community projects. In other words, communities are

treated as individuals, making their own food related project choices in isolation, and in competition with other communities.

We look at them as individual applications. (The Governor, Line 412)

In addition, one participant saw food security as separate entity; as an all-encompassing field. In this regard, food security was dealt with in isolation, separate from other community-oriented projects. For example, an infrastructure-related program considered food security as one of many streams eligible for funding. This means food security competes against infrastructure related issues like internet connectivity and physical infrastructure projects. As identified by Auburn et al. (2005a), individual mindsets prevent people from systems thinking. In other words, leaders operating under an “individuals are responsible for their own action” frame view working collaboratively with food processors to solve issues like unhealthy eating or climate change as wrong, because food processors should fix their own problems. Such thinking is evidenced in the individual, one-off programs and projects “solutions” articulated during the interviews. As for causes, exposure to negative narratives in popular media along with witnessed behaviour contribute to *the Personal Health as Good Individual Food Choices frame*.

Popular media portray processed food as bad. Also our culture is saturated with messages about dieting and healthy eating and that processed food is bad.

(The Educator, Line 359)

Table 7 summarizes the rhetoric and reasoning contributing to *the Personal Health as Good Individual Food Choices frame*.

Reframing strategies would centre on communicating the societal ramifications of a failing food system and the positive contributions food processors make as key food systems actors.

Table 7

Personal Health as Good Individual Food Choices Frame Package

Rhetorical and Reasoning Devices					Example
Problem	Cause	Source	Judgement	Solution	
People and corporations are not taking responsibility for their own actions	The food industry makes unhealthy food that people love to buy and eat	Popular media, Lived experience	Negative	Linear, “one-off” projects and programs	People are obese because they make bad choices

The Consumer Stance frame. Similar, yet broader than the *Cook and the Store frame*, the *Consumer Stance frame* is a universal frame applicable to the vast majority of consumers regardless of which product or service they are buying. According to Auburn et al. (2005a), this powerful frame distorts people’s thinking by limiting their perceptions, and interests, to what they already understand, and are comfortable with. People are so tied to their *Consumer Stance* thinking that any change to the food system could be construed as an attempt to limit or change the food supply that they have come to rely on. Auburn et al. (2005a) found that the *Consumer Stance frame* had huge implications on food system development, and this study found similar implications with regard to the food processing industry. An example of how thinking is distorted by the *Consumer Stance frame* include a “big guy, little guy” relationship between the seller and consumer resulting in passive inaction. In other words, the consumer feels at the mercy

of the big guy and accepts what is on the shelf rather than envisioning alternatives (Auburn et al., 2005). For instance, the Specialist spoke of their role in driving demand for foods already on the market as opposed to supporting the development of new foods that met healthy eating guidelines. That interviewees were guided by the *Consumer Stance* was most evident in their lack of understanding and limited thoughts about the food processing industry.

When asked about the terms processing and processed food:

I don't think I've ever sort of really concentrated hard just around how I would define the term or where it's come from. I think that's just the accepted phrase for that kind of probably-not-great-stuff but you can buy it cause ...

(The Systems Thinker, Line 464)

I haven't thought of it before, off the top of my head I would say probably there are negative connotations associated with the word processing but because it wasn't until you asked me what my definition of it was I had to think about it.

(The Educator, Line 257)

Based on a *Consumer Stance frame*, participants were satisfied with the food supply and did not see any need to interfere. In other words, there was no need for them to include food processing in their work. What was encouraging was the recognition of the negative societal ramifications of a *Consumer Stance*. Participants attributed the consumer frame to media exposure as well as their lived experience as consumers in a capitalist society.

I think that in a capitalist consumer-based culture where we're encouraged to shop and buy things all the time you know with the media and advertising all around us unless we have people guiding us to ask those questions it's hard to come up with these questions

out of thin air right unless somehow we are exposed to some kind of conversation and that's the role that education can play and that's the role that researchers like you can raise these issues. (The Educator, Line 478)

The *Consumer Stance frame* package is presented in Table 8.

Because the *Consumer Stance* is so ingrained in our society, it is typically difficult to change. However, the receptiveness of participants to new information was inspiring. This openness is likely due to their leadership roles in sustainable development and their solutions-orientation. The participants viewed *the Consumer Stance* negatively and recognized a need to think more about food processing and its role in sustainable development. Reframing would centre on food processors’ contributions to viable food systems.

There definitely needs to be some work I think, I hadn't really thought about it before but (there needs to be) some work on enhancing people's understanding of the value of the processing industry. (The Specialist, Line 251)

Table 8

The Consumer Stance Frame Package

Rhetorical and Reasoning Devices					Example
Problem	Cause	Source	Judgement	Solution	
Capitalism, over consumption	Complacency, do not want to think about it	Media, Lived experience	Negative	“Freedom of Choice” Make informed purchasing decisions	Purchase healthy processed foods

The Fantasy Food System frame. From the *Modernization frame* that covered leader’s thoughts regarding science and technology, participants’ default thinking also included the

fantasies they held with regard to food production. According to Auburn et al. (2005a), food marketing creates a make-believe food world that results in people being able to avoid thinking about real-world food issues. For instance, images of pastoral farms, old-fashioned and jovial consumption scenes conjure emotive and nostalgic thinking that completely remove any thoughts of factories, science, and technology (Auburn et al., 2005). The *Fantasy Food System* default contributes to the emphasis of farms in food systems thinking because people operating under this default simply do not want to think about the rest of the food system that their default thinking frames negatively. During this study, virtually every conversation about food processing reverted to a discussion about farming, or urban gardening, as a solution to what ails the food system.

There is a growing interest in food across Canada from a variety of different perspectives at [our institution] it's about creating a garden or something; we don't quite know exactly. (The Educator, Line 192)

The Traditionalist stated that in the north, hunting and gathering was a solution to the lack of self-reliance brought on by the globalized food system.

People in the north are more concerned about self-reliance than ... possibly people are in more urban areas and so many people in the north spend a lot of time collecting food and for instance they go hunting so that they have meat for year-round consumption.

(The Traditionalist, Line 146)

While contributory, farming, gardening, and hunting and gathering activities, on their own, are not answers to sustainable food system development. The lack of knowledge regarding food production, along with understandings generated by fantasies, can produce self-satisfying

solutions that prevent people from seeking or accepting new information (Auburn et al., 2005). However, what was encouraging was the shift in thinking that occurred during the interview process, as evidenced in the following dialogues:

Researcher: *...we have education programs in the schools where we're really elevating the value that that's given to farmers*

The Specialist: *Yes*

Researcher: *...but we don't have that (programs about the value of food processing), if anything it seems we have more of a villianization of the food processing industry*

The Specialist: *it is true*

Researcher: *and yet without it (food processing) we won't have food on the table*

The Specialist: *that is true... hmmm I don't know how you mitigate that but you are right, now that you are talking about it, it is very true. (Line 257)*

Urban agriculture is difficult, it's really a positive use of abandoned space (that has) potential for increasing food production by making more creative uses of things like boulevards. It is more of a sort of a community thing probably or even an individual thing (not an) economic kind of thing. (The Systems Thinker, Line 141)

In the above examples the Specialist shifts their default thinking from a sole focus on farming, to incorporating food processing in educational programs, and the Systems Thinker recognizes that urban agriculture is more a social activity than a viable food system activity. See Table 9 for a summary of the *Fantasy Food System frame* package.

Sustainable development leaders' involvement in, or knowledge of, existing small scale, linear, "food system" activities may make it challenging to shift their default thinking. Fantasies

are very satisfying and leaders may feel as though activities are in place to deal with unsustainable food systems so there is no need to intervene. Fortunately, based on this study, leaders are open to new ideas. However, siloed thinking and the invisibility of the food processing industry (types of frames covered under the Inductive Frame Analysis section), both contribute to *The Fantasy frame*. When faced with a lack of information, people default to their own frames (FrameWorks Institute, 2001). Reframing efforts must focus on creating narratives that demonstrate BC food processors’ place in viable food systems, reveal their personalities and their integrity with regard to wanting to contribute to sustainable development by making good food for British Columbians’ tables. The *Fantasy Food System* was the last of the deductively identified frames, two additional frames were identified through inductive analysis and are presented in the next section.

Table 9

The Fantasy Food System Frame Package

Rhetorical and Reasoning Devices					Example
Problem	Cause	Source	Judgement	Solution	
The globalized food system is unsustainable	Capitalism, corporate greed, public complacency	Popular media, marketing	Negative	Small, individual or community farm/garden/harvest based activities	Thinking that farming is the answer to food systems issues

Inductive frame analysis. Inductive analysis involved the analysis of data that did not fit in Auburn et al. (2005a) and Van Gorp and van der Goot's (2012) frames and led to the discovery of two additional dominant frame packages. These frames are listed below and are followed by and their discussion and summarized frame packages.

1. *Silo, Not System Thinking*;
2. *The Invisible Link*

The Silo, Not System Thinking frame. This frame came up repeatedly throughout the interviews. In some cases, silo thinking was explicitly mentioned by the participants, however most of the time the *Silo frame* was embedded in the discourse.

[There is a] *need to dismantle government silos, employ systems thinking, a culture of innovation.* (The Educator, Line 504)

[We] *don't really work with other departments.* (The Governor, Line 469)

International investors look at a number of communities in British Columbia.

Communities have to compete with each other and do so by providing good experiences, resources and connections – like a realtor. (The Traditionalist, Line 71)

In discussing their roles, interviewees emphasized their collaborations, but the underlying message was that they were over-taxed and focussed in their narrow field. One of the causes of silo thinking may be increasing pressures to downsize government and institutions, and shift responsibilities to underfunded non-profits. As a result, under-resourced leaders must focus on their core responsibilities and may perceive working with industry as counterproductive. For instance, participants viewed working with the food industry counterproductive given their default thinking that food processors are *solely* profit-motivated, whereas participants were socially-motivated. In addition, siloed approaches to funding and garnering foreign investment cause communities, and projects, to compete against each other. For instance, food security competes against other infrastructure projects. In contrast, a systems approach would see projects being planned in concert. In other words, roads, water, and internet connectivity projects would

include food system planning. Despite having roles in sustainable development and food systems interests, none of the leaders interacted with food processors. Meanwhile, most spoke of working with farmers.

(We) do not work with the food processing industry – that's responsibility of other departments. (The Specialist, Line 169)

We're working with agricultural sector to use the biomass that they create for energy production. (The Governor, Line 207)

Participants judged silo thinking as negative and recognized the need for collaboration and the adoption of a systems approach for viable food system development. One participant astutely recognized the need for (and offered), a neutral space in order for food system actors to interact towards common societal goals. The availability of space that permits free speech and understanding of different agendas would facilitate the collaboration that Lang and Barling (2012) and Zurek et al. (2018) argued is required to achieve viable food systems. The Collaborator provided an example of how the provision of neutral space facilitates systems thinking:

We were in a position to create a very neutral space and bring in people from industry, health sector, from the general public to have a conversation about what does the statistic mean? Does it matter? What about how alcohol contributes to our economy? We have you know ah a lot of small distilleries, breweries. And so it was interesting in that space to see how it ah allowed the not the usual suspects to have a conversation that actually got everybody working towards solutions. (Line 90)

The rhetoric and reasoning leading to the identification of the *Silo, Not System Thinking frame* is summarized in Table 10.

In terms of reframing, messaging should focus on the role of food processors as a key player in viable food systems. Reframes would include emphasizing the role of food processing in the three pillars of sustainable development, narratives personalizing processors, and descriptions of how a systems approach helps sustainable development leaders achieve their goals.

It is worth mentioning that the food processing sector is also guided by the *Silo, not System Thinking frame*. This too may be in part due to government downsizing, and the shifting of responsibilities to the non-profit sector. While beyond the scope of this study, the fact that the BC Ministry of Agriculture is one of the smallest provincial ministries, and has limited resources to allocate to the province's largest manufacturing sector, may be a factor. For instance, with the shift from boots-on-the-ground extension services to funding industry programs, a large number of competing non-profit organizations were formed, as non-profit status was required to access funding. While the situation is more complicated than is presented, the province is home to two food processor associations and a number of other related organizations that operate independently and compete for the same members, projects, and funding pots. It is my experience that all of these organizations are under-resourced and typically operate in isolation. The result is confusion (who represents who), fractured one-off undertakings (limited by project-based funds and timelines), and limited capacity to engage in systems related activities (need to concentrate on fundraising).

The *Silo, Not Systems Thinking* frame meets Van Gorp & van der Goot's (2012) test of level of abstraction in that it can be applied to many other situations. For instance, many researchers operate with a *Silo, Not Systems Thinking* default mode. Next we move to the final frame discovered during the study, *the Invisible Link frame*.

Table 10

The Silo, Not System Thinking Frame Package

Rhetorical and Reasoning Devices					Example
Problem	Cause	Source	Judgement	Solution	
Fractured approach to food system development	Perceived competing interests, over worked	Capitalism, Specialization, Lived experience	Negative	Collaboration, Dismantle silos and adopt systems thinking	Communities compete for funding and investment

The Invisible Link frame. A second inductively identified frame was the *Invisible Link frame*. The invisible link metaphor describes participants’ default thinking; there was a perceived lack of information regarding food processing, rendering it essentially “invisible”. (In contrast, Auburn et al. (2005a) referred to people being “blind” with regard to the workings of the food system). By framing the industry as invisible, I place the onus on food processors to take responsibility for their omission in discourse surrounding sustainable development. A recurring theme throughout this study was the lack of knowledge and understanding of food processing as evidenced by the following quotations:

I don't actually know how much processors make; I have I have a sense of what my friends who are farmers struggle to make. (The Educator, Line 393)

Furthermore, not once were food processors referred to as people, rather they were referred to as “the industry”. There were hints of suspicion that perhaps food processors wanted to remain hidden because they might be doing something wrong.

I think it's (the food processing industry) like very hidden

...and why don't they want the inspector?

Food processors aren't on the radar. (The Collaborator, Lines 253, 360, & 382)

These excerpts indicate that interviewees had positive perceptions of farms and farmers, but had limited understanding of food processing activities, and virtually no exposure to the people who make up the BC food processing industry.

Invisibility along with the previously mentioned default frames provide important insights into why food processing has not been part of the discourse surrounding sustainable development. On the other hand, once the food processing industry was reframed in a manner that resonated with them, interviewees articulated interest in additional information, and collaboration. The sources contributing to the *Invisible Link frame* are the industry and government organizations representing the food processing industry. Participants judged food processing's invisibility as negative due to the lack of information; encouragingly, there was openness to new information. Table 11 outlines the *Invisible Link frame* package. As for reframing, the *Invisible Link frame* suggests that the BC food processors have a tremendous opportunity to raise their profile by undertaking public relations activities to build knowledge and raise awareness.

Like the *Silo, Not System Thinking frame*, *The Invisible Link frame* meets Van Gorp & van der Goot's (2012) test of level of abstraction in that it can be applied to other situations. For

instance, many non-profits fit the frame of invisible providers of essential services. The *Invisible Link* is the final frame identified in this study. Before moving on to the Cognitive Analysis of Individuals I provide a brief overview of deductively and inductively derived frames.

Table 11

The Invisible Link Frame Package

Rhetorical and Reasoning Devices					Example
Problem	Cause	Source	Judgement	Solution	
Limited knowledge regarding food processing	Lack of information and relationships	Food processors, industry associations, government	Negative	Collaboration, relationship building	Information regarding the food processing industry is hard to find

Overview of deductive and inductive frame analyses. By combining deductive and inductive frame analyses this study leverages Auburn, Brown, and Grady (2005a) and Van Gorp and van der Goot’s (2012) studies regarding the framing of food systems as well as identifies differences in perceptions regarding the food system as a whole, and food processing on its own. The results point to many similarities – both the food system and food processing are relatively invisible and are perceived as necessary *evils*. Differences in frames identified in my study versus those identified by other researchers are likely due to my studies’ focus on food processing (versus food systems) and leaders’ perceptions (versus public perceptions). I conclude the Presentations of Findings section with an analysis of the individual participants.

Cognitive analysis of individuals. The identified frame packages capture the dominant frames common to all participants; however, each participant offered additional insights, including recommendations with regard to systems thinking and collaboration, worthy of

consideration. What follows is a brief analysis capturing the rhetoric and reasoning of each participant as well as the implications of reframing of food processing on leaders' actions. Note that the order in which interviewees are presented has no bearing on the analysis.

The Educator. Both a professor and an administrator, the Educator has considerable influence over others in their department as well as the students that they teach or supervise. The Educator provides an excellent example of what this study sought to prove. Based on their default thinking, guided by the *Undermining of Foundations frame*, the Educator published material that frames food processing negatively as “industrialized agriculture” (the document is not referenced in order to preserve anonymity). This example demonstrates that leaders lead by framing issues based on their default frames (Fairhurst and Sarr, 1996). The Educator was very receptive to new information regarding the food processing industry and the implications are that they will incorporate new perceptions in their teaching and research.

The Governor. A leader with a large staff and extensive power the Governor has tremendous influence over local governments across BC. While the Governor mentioned collaboration, much of their discourse emphasized their decision-making power over which projects and programs moved forward or not. The Governor referred to “food security” repeatedly. Whereas the other participants barely mentioned food security, the Governor mentioned it 22 times during the interview. The Governor related everything on the topics of agriculture and food production back to food security. I suspect the reason for this focus was the recent announcement of a new program that included food security as an outcome and the participants' desire to frame the government as part of the solution to food insecurity. This is another example of how leaders lead by framing (Fairhurst & Sarr, 1996). While the Governor

emphasized an inability to work with food processors due to their profit motive, the Governor provided an example of working directly with farmers to solve waste issues. If the Governor's mental model was shifted to include processing in their definition of food security, it is conceivable that projects related to food processing would be supported.

The Systems Thinker. Like other interviewees the Systems Thinker had limited knowledge of the food processing industry. However, as a "systems thinker" they recognized that activities such as farmers markets or urban agriculture have limited potential with regard to feeding the masses versus the globalized food system. The Systems Thinker emphasized the need to make sustainability the easy choice in the development of sustainable food systems. For instance, the masses want one-stop shopping. Reframing BC food processors to demonstrate their contribution to viable food systems, and sustainable development, would resonate with the Systems Thinker.

The Collaborator. As a director of a regional funding body, the Collaborator has influence over staff as well as organizational activities. While the organization is regionally-based, the Collaborator has provincial and national influence through government and non-profit organizations. The organization does have an existing interest in sustainable food system development and while the Collaborator recognizes the value of food processing, they do not have the knowledge or the information required to reach out to processors. The Collaborator was enthusiastic about viable food systems development, and the inclusion of food processors therein, and suggested that their organization could provide neutral space to facilitate the process.

The Traditionalist. As the only interviewee located outside the Victoria area, and the youngest participant, the Traditionalist was guided by some different perceptions. (While I did not ask the age of my participants, I estimate that the Traditionalist was the youngest participant based on their LinkedIn profile and our conversation). As a leader in economic development in a small city in northwestern British Columbia, they did oversee staff and had influence over other departments and regional activities. At the time of the interview, the Traditionalist was responsible for recruiting investors to invest in an industrial park. Food processing was not a priority but was included as one of the potential industry types suitable for the park. To the Traditionalist, commercial food production is entirely separate from the natural goodness of home cooked meals. In the Traditionalist's mind, commercial food production falls under the *Modernism frame* and to succeed in economic development a region requires trade and success in the globalized food system. The contrariness of frames was evidenced in the Traditionalist, who also framed food processing as a social activity, something to be done in the home. This participant also defaulted to the food choices are an individual choice frame. Successfully reframing the food processing industry would see the Traditionalist assigning higher priority to food processing and food systems in economic development activities.

The Specialist. In a highly specialized position with sweeping responsibility the Specialist has extensive influence over their own and other departments, other Ministries, and non-profit organizations. In addition to broad provincial influence, the Specialist also has occasion to exert influence over national issues. The Specialist is responsible for a number of programs that increase public awareness of farms and the value of farmers, and that facilitate the distribution and purchase of BC produce. If food processing was reframed to associate BC

processors with social wellbeing and the production of healthy foods, it is likely that food processors would be included in the Specialist's work. Given that the Specialist is the last participant to be analysed I conclude the Cognitive Analysis of Individuals with a brief summary.

Summary. To summarize, certain patterns were identified in the analysis of individual participants, based on their vocation. For instance, the Governor and the Specialist hail from government and while representing very different fields (health and infrastructure), both emphasized their power in terms of influence over people, other government departments, and private organizations in their discourse regarding their roles in sustainable development. The Educator and the Systems Thinker, both academics, yet responsible for very different roles (leadership and sustainable development), were similar with regard to their regional, provincial, national, and even global influence on sustainable development based on what they impart on the students and programs they are responsible for. However, they differed (in terms of their interview responses) in that the Educator was focused on teaching, whereas the Systems Thinker was focused on research. The final pairing of interview subjects is that of the Collaborator and the Traditionalist. Both demonstrated a more regional view of food systems, and an understanding of people's disconnection with the food system, as well as the social value of food production. On the other hand, the Collaborator had a more holistic view of food systems development while the Traditionalist's view was more siloed. Regardless of their role, none of the interviewees exhibited a solid understanding of the BC food processing industry. Fortunately (for food processors) leaders did exhibit curiosity and a willingness to accept new information in

order for them to compute the validity of including food processing in their work towards sustainable development.

Discussion

Clearly the food processing industry needs to do a better job of communicating its value with regard to sustainable development in order to garner the support and investment required for it to remain competitive in the globalized food system *and* improve British Columbian's food self-reliance. This statement is based on this study revealing that food processing is misunderstood and framed negatively by sustainable development leaders. I undertook this research based on my experience as a 35-year veteran in the food processing industry. My observations were that the food processing industry was undervalued and not garnering the support it deserved. An extensive review of the literature confirmed my thoughts in that food processing is essentially absent in the discourse surrounding sustainable development (Baker, 2011; Ericksen, 2008; Fresco, 2009; Lang & Barling, 2012; Raja et al., 2018; Zurek et al., 2018). The literature also confirmed that as a vital contributor to sustainable food systems consociated with sustainable development, food processing must be included in the discourse (Lang & Barling, 2012; Zurek et al., 2018) and that leaders were a logical focus (Farhurst & Sarr, 1998; Gregory, 2000). I then queried how food processing could be omitted from the discourse surrounding sustainable development given the facts pointing indisputably to the need for its inclusion. The FrameWorks Institute (2005) provided an answer: Frames, rather than facts, guide people's thinking. Based on these findings my research was guided by the question: *How do sustainable development leaders frame food processing?*

This study focused on sustainable development leaders for two reasons. The first was that sustainable development encompasses economic, environmental and social well-being; all of which are related to the production of food. Furthermore, because virtually all food is processed, food processing plays a vital role in sustainable development. The second reason was that sustainable development leaders have tremendous influence over the conceptualization, implementation, and allocation of resources to sustainable development projects and programs. Based on the research of Fairhurst and Sarr (1996), leaders lead by framing their internal frames in order to meet organizational goals. Therefore, if sustainable development leaders framed food processing positively they would be compelled to include food processing in their work.

My research involved interviewing six sustainable development leaders to gather insights regarding their perceptions of food processing. Critics will argue that this small sample size cannot be generalized to a larger population. They are correct. However, qualitative research is not meant to be generalized but rather seeks to understand perceptions based on the collection and analysis of rich, descriptive data from which interpretations can be drawn towards facilitating social change (Merrigan et al., 2012; Richards, 2009). Indeed, this study has accomplished its goal by revealing nine frames that guide the thinking of sustainable development leaders. *The Modernization; Undermining of Foundations; Frankenstein; Cook and the Store; Consumer Stance; Personal Health as Good Individual Food Choices; Fantasy Food System; Silo, Not System Thinking; and Invisible Link* frames explain why the food processing industry is not included in discourse surrounding sustainable development and offer invaluable insights as to how the industry should be reframed. Based on these insights, recommendations towards informing strategic public relations that reframe food processing as a valuable

contributor to sustainable development can be made. Furthermore, once reframed positively, food processing stands to gain public trust and thereby attract the support and investment it requires in order to remain competitive and feed British Columbians.

Recommendations

Frame analysis is extremely complex, “an art” (Kuypers, 2010), and as such, the framing of food processing by sustainable development leaders warrants careful consideration and reflection prior to undertaking additional action. This study provides evidence that the invisibility and negative framing of the food processing industry contribute to its exclusion in the discourse surrounding sustainable development. Logically, based on the information presented in this document, reframing food processing positively could redistribute resources from other disciplines that could help the industry retain its competitiveness and increase the food self-reliance of British Columbians. However, exactly how food processing is reframed requires further study, both at the industry level and in more scholarly terms.

Recommendations include that the industry, through its representative bodies (the BC Food Processors Association, the Small Scale Food Processor Association, the BC Alliance for Manufacturing, and the BC Ministry of Agriculture), undertake further research to determine how to reframe the industry positively. I strongly recommend that additional research be undertaken *collaboratively*. As wisely suggested by one of the research participants, the Collaborator (Line 90), and verified by Zurick et al. (2018), the process of researching the reframing of food processing should be convened in a “neutral space.” A neutral space would foster a sentiment of “we are in this together and need to find a solution that is mutually beneficial.” Furthermore, I recommend that this process be undertaken with an invitational

rhetoric approach. The efficacy of an invitation rhetorical approach was proven in this study as a valuable tool to elicit mutual understanding toward the achievement of common goals (Foss & Foss, 2011). Unlike traditional rhetoric, that seeks to persuade people to change their minds and adopt the rhetor's perspective, invitational rhetoric can contribute to collective change by inviting the sharing of, and respect for, diverse perspectives. Reframing strategies should be based on addressing the nine frames identified in this study and testing the effectiveness of new messaging about food processing. Each of the nine frames presents different default thinking and each frame requires a different "reframe" strategy. The first step towards reframing would involve engaging the industry, government, and academia by revealing how food processing is currently framed and emphasizing the need for reframing and public relations based on the results of this study. In this regard, I have begun the development of a communications strategy titled "Stay Invisible or Not." In addition, other food systems actors, research bodies, and funding agencies interested in viable food system development need to be identified and approached with a reframed vision of food processing to facilitate inclusive food systems research and development.

Conclusion

This study definitively answered my research question: *How do sustainable development leaders frame food processing?* Despite the public availability of facts that support food processing's contributions to sustainable development, leaders frame food processing negatively, or, as invisible. In other words, sustainable development leaders don't really think about how food gets to the table. Based on the wisdom of Fairhurst and Sarr (1996), leaders lead by framing their own internal frames in order to achieve organizational goals. Therefore, based on the results

of this study it makes sense that food processing is excluded from sustainable development leaders' work. Not only did this study confirm my assumption that food processing is excluded due to how it is framed, it also revealed leaders' receptiveness to new information.

Fortuitously for the BC food industry, the results of this study demonstrated that by simply raising their awareness during the interview process, leaders were receptive to new information regarding the value of food processing to sustainable development. For example, the leaders, guided by *the Frankenstein frame* based on their perceptions of food processors as huge factories making unhealthy products, quickly changed their views when presented with an alternate view of family run businesses focused on making healthy foods for their communities.

Finally, of note, and something to be capitalized on, is what this research uncovered with regard to the participants' frustration with knowing that something needs to be done with regard to British Columbians' sustained access to food but not knowing enough to be able to do something about it. To illustrate, during the interviews the participants demonstrated openness to new information and a willingness to participate in the identification and implementation of solutions that would help them achieve their goals. This openness suggests that sustainable development leaders would be active participants in a systems approach that included food processing towards the development of viable food systems if provided with the tools that would help them achieve their organizational goals. Collectively, food processors, along with other food system actors and sustainable development leaders, informed by inclusive strategic public relations strategies that positively reframe food processing, could enthusiastically facilitate the development of viable food systems in British Columbia.

Future Considerations

Future considerations for additional research include addressing the exclusions and limitations of this study. In terms of exclusions, this study focussed exclusively on influencers in realm of sustainable development and excluded people directly involved in food production. People with roles directly related to food production were excluded because they were the topic of the study, and I assumed that they would frame food processing positively. Furthermore, while the study ascertained how food processing is framed by sustainable development leaders, it did not address how sustainable development is framed by food processors. This exclusion requires further investigation in order to achieve the mutual understanding required for effective public relation strategies.

Lastly, I address what may be considered a significant limitation: Generalizability. In other words, can the results of this research be applied to other contexts? In general, the response would be “no” as qualitative research is not meant to generalize but rather seeks to understand perceptions based on the collection and analysis of rich, descriptive data (Merrigan et al., 2012; Richards, 2009). On the other hand, according to the FrameWorks Institute (2001), widely held frames, those shared by the public, can be generalizable. Given that the frames held by sustainable development leaders about food processing matched many publically held frames regarding food systems suggests that this research may be applied to other contexts. Additional research into the correlation between the framing of food processing, other food system actors, and food systems would support a systems approach to reframing the entire food system.

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Appendix A: Sample Interviewee Profile

Interviewee Profile

Characteristics	Description of influencer
Role, position	
Field Community planning, economic development, education, funding and health	
Mandate (of group, institution)	
Type of influencer Political, academic, government, private (for-profit), public (non-profit)	
Power, authority, legitimacy Decision-maker, advisor, information provider, advocate (give some idea of size of audience – ie. 10 staff, board of 12 ...)	
Scope of influence Policy, Legislation, Governance, Financial (funding), Education (curriculum), Education (instruction), Education (research), Public opinion	
Level of influence Ability to influence other influencers, formal links to other influencers, control of strategic resources, political status, possession of specialist knowledge	
Level of involvement in SCD projects Provide information or kept informed (Informed), Actively consulted (Consulted)	
Policy regime affiliation Community development, economic development, healthy eating, food security, food sovereignty, global competitiveness, education	
Geographic scope Local, Local (other) Regional, Provincial, National	
Values, interests, goals	
Issues	
Resources	
Alliances, main partners, collaborators	

Appendix B: Sample Interview Invite
EMAIL INVITATION TO PARTICIPATE IN RESEARCH PROJECT

Subject Line: Invitation – Royal Roads Research Project

Hello _____,

My name is Debra Hellbach and I am a Masters Student in the Professional Communication program at Royal Roads University. I am conducting research towards completing my thesis project and would like to invite you to participate in a 30 – 45 minute interview. My thesis research seeks to understand influencers' perceptions regarding food systems as a component of sustainable communities.

I have selected you as an ideal interview candidate as you, in your role of _____, would have influence in community development projects. For instance, {include examples of how she/he may have influence - for instance a health representative with a healthy eating portfolio would influence in recommendations for programs that support community development through health outcomes and economic development }. I would like to interview you in person to gain an understanding of your perspectives regarding sustainable food systems.

I am hoping to conduct interviews the week of _____ and have the following time slots available:

List of potential time slots.

Please indicate your first and second time preferences.

If these times do not suit your schedule please let me know your preferred dates and times.

Know that your participation is completely voluntary and that you can withdraw at any time. Also, you can confirm my credentials with RRU by contacting my thesis coordinator, Dr. Zhenyi Li, at zhenyi.li@royalroads.ca or 250-391-2600

Please feel free to contact me for further information. Additional/Further details regarding my research will be provided at the beginning of the interview.

I look forward to your response and hope to meet you soon.

Debra Hellbach

Phone: (250) 858-7658

debra@hellbach.ca

Debra Hellbach LinkedIn

Masters Candidate, Professional Communications

Royal Roads University

Appendix C: Informed Consent Form
RESEARCH CONSENT FORM

My name is Debra Hellbach and I am a Masters candidate in the Professional Communication Program at Royal Roads University (RRU). My thesis project is part of the requirement for attaining the Master of Arts in Professional Communication. I am requesting your consent to use information gathered during the interview in my research.

You can confirm my credentials with RRU by contacting my thesis coordinator, Dr. Zhenyi Li, at zhenyi.li@royalroads.ca or 250-391-2600 or the Royal Roads University Research Ethics Board at ethicalreview@royalroads.ca or 250-391-2600 ext. 4425.

Once signed, this document serves as an agreement to participate in my research project titled “How Does Food Get to the Table? Sustainable Development Influencers’ Framing of Food Processing in British Columbia”. The purpose of my research is to gain an understanding of how influencers involved in sustainable community development frame food processing. My research may be partially funded by Mitacs, a non-profit, national research organization. I am also working with the Small Scale Food Processor Association, a non-profit organization that represents small scale food processors. There are no known conflicts of interest.

Your part in this research will consist of participating in one 30 to 45 minute interview. During the interview I will be guiding the conversation with open-ended questions regarding your thoughts about food and food processing. The discussion and information shared during the interview may provide a benefit for future sustainable community development activities. The nature of this study is intended to be low-risk to all participants.

Your participation is completely voluntary. If you do choose to participate you are free to withdraw at any time. In addition, if you choose not to participate in the interview, or withdraw from the research, this information will be kept in confidence.

If you choose to participate, our conversation will be audio-recorded and transcribed to a written file and may be summarized, in anonymous format, in the final report. If requested, I will share draft copies of the transcribed interview for your review to ensure accuracy. Your comments will remain anonymous unless specific agreement has been obtained from you beforehand through a discussion of the nature of the comments to be included.

All documentation will be kept secure and stored in secure password-protected formats on electronic storage devices and/or a locked filing cabinet. The data gathered will be retained for five years, and then destroyed. Data will not be retained pertaining to an individual who has withdrawn at any time.

In addition to submitting my final report to Royal Roads University in partial fulfilment for my Master's degree, I plan to pursue both publicly accessible and academic publishing opportunities to share my research findings. A copy of the final report will be housed at Royal Roads University, available online through UMI/Proquest and the Theses Canada portal and will be public accessible. Access and distribution will be unrestricted.

This research project has been approved by the RRU Research Ethics Board. If you have any questions regarding your rights as a research participant, please contact the Office of Research Ethics at ethicalreview@royalroads.ca; 1-250-391-2600 ext. 4425.

Please let me know if there are any questions you would like me to answer before proceeding.

By signing this letter you give free and informed consent to be included in this project.

Name: (Please Print): _____

Signed: _____

Date: _____

(Two copies – one for participant/one for researcher)

Appendix D: Interview Guide

Interview Guide

How Does Food Get to the Table?

The interview should take between 30 and 45 minutes. Our conversation will be guided by six questions but we are free to expand our discussion.

The intent is to be collaborative, that is identify ways that we can help each other attain our goals as well as contribute to sustainable community development with a focus on food.

Questions

1. Tell me about your role as ####. What are the primary goals of your department?
 - a. For instance, what are areas of responsibility?
2. In your opinion how does food fit into your field of work?
 - a. Tell me more, elaborate
3. What does the phrase “food processing” mean to you?
 - a. What are some examples?
4. How do you feel about processed food?
 - a. Can you provide me with some examples to demonstrate what you mean?
5. What else do you think we should discuss about food processing?
(Do you have any additional thoughts you would like to share with me?)