

Perceptions of Food Risk and Labeling

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Canada

Tell me what you eat, I will tell you who you are.

- Brillat-Savarin (1825)

Abstract

Perceptions of Food Risk and Labeling

Kyle Zelmer

Consumption of foods labeled in certain ways entails an array of social, economic, political, and ethical considerations which go beyond the simple provision of sustenance. The extent of the relationship between food politics and the social construction of the self is analyzed in this thesis. Risk perceptions regarding genetically modified foods and the recent explosion in the significance of the organic food market are explored. Canadian food labeling regulations, corporate strategies for promotion of food biotechnology, and grocery merchants' strategies for the expansion of organic, free range, fair trade, and genetically modified food markets are evaluated through textual analysis. Semi-structured interviews are then conducted with experts in the fields of philosophy, natural science, and business to explore rationalities for consumption of these types of foods.

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Introduction

The ways in which foods are prepared, identified, and consumed reflect social and health values of a society (Moisio, Arnould, & Price, 2004, 362). The literature shows that although food is necessary for survival, the circumstances under which foods are produced and consumed are also highly aesthetic, subjective, and tied to social and cultural identity (Moisio, Arnould, & Price, 2004, 362; Crouch & O'Neil, 2000, 181; Lupton, 1996, 1; Cheska, 1988, 89). Types of foods consumed may be associated with socio-economic status, education, and environmental sustainability, as well as many other potential variables (Hamlett, et al, 2008, 110).

Food labeling is a powerful tool for influencing consumption habits as it may be used to advertise statements concerning healthfulness, quality, and other information likely to tempt consumers (Woodburn & VanDeRiet, 1985, 9). Labeling may also be used to distract or mislead consumers through selective presentations of information (Van den Wijngaart, 2002, S68). When one purchases a food item in Canada, there is often textual or graphical labeling on the package through which many products claim to be free range, organic, or fair trade. Food labeling in Canada is regulated by the federal government (Canadian Food Inspection Agency, 2008).

On food labels, industries use aesthetics and cinematic advertising as marketing strategies (Brook, 2008, 144; Nissley, Taylor, & Houden, 2004, 827). Aesthetics, for the purposes of this paper encompasses a negotiation of desirability, artfulness, and beauty based on perceived image. Food labels may successfully market image and fashion as major reasons to consume certain foods (Brook, 2008, 144). However, these fashions are continually changing as consumers tend to be highly fickle in their demands for new products (MacKenzie, 2004, 43).

Successful marketing strategies create a link in consumers' minds between consumption of a specific product and a heightened social status (Duncum, 2007, 286). An effective tactic used in these strategies involves attributing an aesthetic image to a product such that it is perceived as being desirable and essential to achieving social status as prescribed by the company selling the product (Duncum, 2007, 286). The concept of an aesthetic image entails linking a product to a set of desirable characteristics (for example environmental sustainability), through labeling, package design and slogans. For consumers, this marketing strategy has led to a perception in which one's social identity and individuality are seen as being shaped by what one consumes (Sharpe, 2003 *ii*; Duncum, 2007, 289; Mintz, 2002, 27; Warde, 1997, 180).

In addition to being tied to social identity, food consumption is linked to perceptions of risk. In recent years, there has been a destabilization of public trust in the institutions of science, corporations, and governments causing a shift to a society preoccupied with risk (Beck, 2002, 213; Mythen, 2004, 163; Douglas, 1985, 65). A discussion of the risk society and the juxtaposition of the natural and artificial in food production technologies occurs in the following chapter.

In the public sphere, issues of food labeling and safety have been at the forefront of public debate in recent years (Grunert, 2005, 369). Perceived risks "can come to dominate all other considerations in food choice" (Grunert, 2005, 381). Risk perceptions of foods tend to be elevated for "unfamiliar" food types such as Genetically Modified Organisms (GMOs) compared to foods which are perceived as more familiar or traditional (Grunert, 2005, 382). If people perceive significant risk to be associated with consumption of GMOs, as a corollary, there may be increased market potential for organic foods which, by definition, prohibit genetic modification.

This project examines perceived social implications of market expansion of genetically modified (GM), organic, free range, and fair trade food products in Montréal, Québec. Current scholarly literature is reviewed to understand public risk perceptions of GMOs in North America. Textual analysis is conducted of government literature to explore the legal and regulatory differences between organic, free range, fair trade and GM labels in Canada. Publicly stated positions of the biotechnology industry are explored through textual analysis of corporate websites. This method of analysis is also used to evaluate the marketing strategies of the three largest grocery companies in the province of Québec: Loblaws, IGA, and Metro. Finally, semi-structured interviews are conducted with experts in the fields of philosophy, natural science, and business to explore and reflect upon the issues brought forth in the first three chapters. These research areas combine to provide an exploration of the implications of food politics and labeling.

Chapter One

Theory

1.1- Food Consumption and Social Identity

This thesis will explore the implications of food consumption habits on consumers' perception of social identity. For the purposes of this thesis, the notion of consumption is interpreted to entail both purchasing and consuming. The thesis will examine the extent to which food labels make identity claims with regard to consumption of certain products. The assertions made on labels are considered by the public to be one of the most important factors in determining desirability of a food (Stuart, Schröder, Hughes & Bower, 2004, 135). However, labels may be primarily focused on advertising aesthetics, status, and lifestyle. Foods labeled in certain ways are likely to be perceived as status symbols (Jordan, 2007, 26). Food packaging and labeling has a significant influence on consumer buying behavior and how the product is used (for e.g.: Woodburn & VanDeRiet, 1985, 9; Thomsen, Dale, & Amos, 1988, 215; Davies & Wright, 1994, 57). Labels are often more about marketing an aesthetic lifestyle image than explaining the actual constitution of foods (Davies & Wright, 1994, 57). The third chapter of the thesis will analyze the extent to which labeling claims may be contradictory in comparison with actual food content and production methods.

For many, food consumption does not entail a conscious philosophical, political, or social intention to act in a certain way, "yet the activity is integrally connected with many other highly meaningful aspects of living" (Warde, 1997, 180). Food is a social experience, a medium over which people socialize, and spend significant portions of their income (Warde, 1997, 180). Ulrich Beck notes that towards the end of the 20th Century, there had been a new focus on individuality due to the destabilization of class and the family unit (Beck, 2000, 213). Through this process, the social self is perceived as

intentionally selecting its identity and communicating individuality through consumption habits (Warde, 1997, 180).

Individuality has been “assimilated” into food consumerism (Mintz, 2002, 27). For many product types, supermarkets provide a number of options and individuals may choose from an array of products in ways that are personal and tied to their identities (Warde, 1997, 194). However, the resulting patterns of consumption are not particularly unique (Warde, 1997, 194). Modalities of food consumption are typically patterned not by deeply reflective manifestations of identity, but by the successful administration of marketing (Warde, 1997, 194).

Environmentally conscious consumerism was initially a rebuttal of corporate logic, but it was then co-opted as a niche market (Miller, 2001, 138). Yet, Miller argues that the green food movement would likely have arisen out of the free market even if activism had not given it momentum (Miller, 2001, 138). The cultivation of niche markets, such as that of organics is immensely profitable, and no longer a true form of resistance to corporate dominance (Miller, 2001, 138).

In niche markets, people may be willing to pay a premium for foods they believe are superior as based on health, ideology, and class (Davies & Wright, 1994, 63). However, labels are often misleading for the purposes of marketing (Davies & Wright, 1994, 63). Marketing tools use the premise of social inclusion / exclusion to sell their products. That a consumer will consider themselves excluded if they do not buy the product is a psychological marketing technique highly effective with children (Conner & Armitage, 2002, 120). Mark Conner and Christopher Armitage examine studies on how food products are advertised in the United States. They cite a study from 1998 which analyzed children’s television shows for one week. In 91.33 hours of programming, there

were 828 advertisements, 49.4% of which were for foods, a far greater proportion than for any other type of advertisement (Conner & Armitage, 2002, 120). Also, “there was a clear bias towards unhealthy foods” (Conner & Armitage, 2002, 120).

Food consumption is intimately tied to perceptions of identity (Lindenmeyer, 2006, 469). Factors in the construction of one’s identity are interpreted in this thesis to be those elements which distinguish an individual from others, encompassing a range of characteristics and traits consciously and unconsciously selected and ascribed. Religion, ethnicity, ethics, politics, morality, consumption, and many other value systems may contribute to the construction of one’s identity. However, the scope of this thesis will focus on the facets of identity relating to consumption. The literature shows that patterns of consumption are highly significant influences in the formation and shaping of identity (for e.g.: Belasco, 2002, 2; Mintz, 2002, 27; Warde, 1997, 180; Sharpe, 2003 *ii*; Duncum, 2007, 289; McKenzie, 1976, 22; Miller, 2001, 137; Lindenmeyer, 2006, 469; Moisio, Arnould, & Price, 2004, 362).

One of the facets of consumption rationalities is the issue of ethics. Peter Singer is a prominent scholar of food politics and ethics. He writes on the philosophical ramifications of animal rights and ethical food choices. Singer comments that “in general, we are ignorant of the abuse of living creatures that lies behind the food we eat” (Singer, 1989, 159). A common public conception of farming includes the notion of a wistful vision of the family farm where chickens roam freely, are “overseen by a strutting rooster,” and cows graze in the fields (Singer, 1989, 160). But this is a fantasy; in factory farms “the essential step in turning the chicken from a farmyard bird into a manufactured item was confining them indoors” (Singer, 1989, 160). Food animals in factory farms are

not viewed as living beings, but as commodities, which are to be maximized through mechanical management (Singer, 1989, 162).

The argument that “we are what we eat,” is well established, but the inverse is also highly significant (Belasco, 2002, 2). Consumers use what they eat as an ethical statement about their identity (Belasco, 2002, 2). Consumers often seek to attach moral meaning to their consumption practices, such as purchasing specific types of niche market foods (Connolly & Prothero, 2008, 125). This perceived moral obligation includes the desire to avoid the “unhappy and unhealthy” conditions of animals in factory farms (Singer, 1989, 167).

Yet those who purchase niche market foods are often regarded by others as being motivated by status rather than ethics (Miller, 2001, 137). The next section of this chapter will examine how food consumption rationalities are influenced by aesthetics and class-status. This examination will take into account the interplay between identity and these motivations for consumption in advancing capitalism.

1.2- The Protestant Ethic and Class Status in Food Consumption

Food consumption is integral to social identity and it is seen as an indicator of lifestyle (Warde, 1997, 121). Successful food marketing strategies seek to align identity claims with consumption of a particular product (Moisio, Arnould, & Price, 2004, 364). In these cases, identity is marketed through the aesthetic presentation of a lifestyle which may be attained through the consumption of the product (Moisio, Arnould, & Price, 2004, 364).

The aesthetic appeal of foods is of high importance for purchasing and consumption (Moisio, Arnould, & Price, 2004, 364). Industry cultivates consumer

demand based on fashion through aesthetic and cinematic marketing strategies which encourage consumers to “indulge in instant gratification” (Bell, 1976, 21). Products marketed as distinctive are seen by consumers as signs of “prestige [and] a means of demonstrating mood and personality” (McKenzie, 1976, 22). Foods of many types and resultant of various methods of production are marketed to consumers. Food production technologies and methodologies have included the manufacture of genetically modified, organic, free range, and fair trade foods, among others.

Though there are many factors which have been established as necessary to the advancement of capitalism (Cornwell, 2007, 269), this thesis, focuses on consumer trust and risk perceptions in capitalist production. Since the introduction of genetically modified and other novel foods, the issue of consumer trust in the safety of corporate retailing is of heightened importance for the system to function efficiently (Bildtgard, 2008, 103).

This trust is instilled by the effects of the Protestant Ethic and its integration into advancing capitalism. Max Weber notes this ethic arose as a consequence of the Protestant Reformation which focused on trust in science and technology, and especially hard work, which was very conducive to the propagation of capitalism (Weber, 1976, 36). Though there is presently a multi-cultural mosaic in North America, the seeds of advanced capitalism were sewn by the Protestant Reformation (Baker and Forbes, 2006, 24). However, Bell argues the Protestant Ethic has been transformed by the capitalist system it initially helped to create:

In the early development of capitalism, the unrestrained economic impulse was held in check by Puritan restraint and the Protestant Ethic. One worked because of one's obligation to one's calling or to fulfill the covenant of the community. But the Protestant Ethic was undermined not by modernism but by capitalism itself. The greatest single engine in the

destruction of the Protestant Ethic was the invention of the installment plan, or instant credit (Bell, 1976, 21).

Parallel to the remnants of the Protestant Ethic, the individual is made responsible for maintenance of health, fitness, and financial success in advanced Western capitalism (Baker & Forbes, 2006, 25). However, this portrayal of responsibility is only a façade with “new buying habits in a high consumption economy and the resultant erosion of the Protestant Ethic” (Bell, 1976, 55). Individuals are likely to embrace trends created by the food industry (Moisio, Arnould, & Price, 2004, 364). The market expansion of organic, free range, and fair trade products from micro-niche to more mainstream may be tied significantly to fashion, inaccurately perceived health benefits, and individuals seeking to portray class status. The act of consumption is a manifestation of status seeking behavior (Bell, 1976, 22). Through aesthetic labeling practices, status driven consumption habits are cultivated (Moisio, Arnould, & Price, 2004, 364).

Food consumption patterns are significantly influenced by social class (de Garine, 2001, 498). Class status is linked to the notion of class consciousness, a term Marxist philosopher Georg Lukács used to illuminate the extent to which “the working class was unable to perceive its real interests in capitalist society... that is, the real object, the exploitative nature of capitalist society, was hidden from the knowing subject” (Eyerman, 1982, 547). Aesthetically-marketed lifestyle images associated with certain types of foods invite consumer preoccupation with class status. Body-image aesthetics are tied to perceived Protestant ideals of fitness, health and responsibility (Jutel, 2005, 115; Courtine, 1993, 225), which are featured in marketing campaigns for organic, free range, and fair trade foods.

In conjunction with both the undermined Protestant Ethic and the corporate-driven aesthetics of food existent as pressures placed on the self in Western sociality, is Bart Simon's observation that it is difficult to "disentangle the critical potential of hybrid subjectivity from the corporate technoscientific practice of producing hybrids so well suited to the needs of global capitalism" (Simon, 2003, 4). This thesis posits that the Protestant Ethic's valuation on hard work and prosperity has been altered in vernacular perceptions, shifting towards a *consumption-ethic* based on utilization of status symbols.

The consumption of food as a form of status symbol has been influenced by this shift away from the Protestant Ethic. This shift in ethic is referred to as "*conspicuous consumption* or the *consumption ethic*" (McIntosh, 1996, 48). Bell (1976) is cited as arguing that this new consumption ethic "is the result of the breakdown of the very Protestant Ethic that led to capitalist production" (McIntosh, 1996, 48). For example, dining at lavish restaurants is often an exercise in seeking to portray class status (McIntosh, 1996, 48). In this case, "taste is a social weapon used to maintain class boundaries," (McIntosh, 1996, 49). On occasions of fine dining, the food itself is of diminished importance (McIntosh, 1996, 48).

Historically, the Protestant Ethic set hard work and trust in scientific capitalist progress as social obligations (Weber, 1976, 168). This thesis posits the development of genetically modified foods were a logical extension of historic Protestant views on nature as a set of resources to be used and enhanced. However, in modernity, the immense public trust which had been placed in corporate science was threatened by disagreement in the mass media over potential risks (Beck, 2000, 213).

Discontinuities in the mass media and the dramatic style of news presentations were factors in reducing public trust of corporations and governments (Douglas, 1985,

65). Additionally, media aimed at the general public is often inaccurate when reporting on the nutrition value of foods (George, 2000, ix). The thesis posits that contradictory accounts of risk provided by agents of the mass media in conjunction with a disintegrating Protestant Ethic contributed to a loss of stable public trust in industry and government. Public perceptions became preoccupied with risk (Donoghue, 2008, 341).

1.3- Food Safety in Risk Society

In modernity, society has become characterized by risk (Beck, 2000, 213). In risk society, individuals are concerned with potential actions and situations that may come about as a result of present actions, decisions, and knowledge (Beck, 2000, 213; Donoghue, 2008, 341). From this general conception, there are four principle facets in the structure of risk society. The first draws on the work of Mary Douglas (1985, 1992) to look at how risk is discussed as part of the lay culture (Douglas, 1985, 65; Donoghue, 2008, 341). Another attribute of risk society is based on Beck's (1992) theory that society has become destabilized as the public perceives greater potential risks of every interaction (Donoghue, 2008, 341). This type of society was further characterized by Foucault (1977) who analyzed risk as a method of social control and restraint (Donoghue, 2008, 341). The fourth facet of the risk society is the role of experts. Lupton (1999) and Mehta (1995) argue, that the theory of risk society demonstrates the public perceive risk to an unprecedented degree, yet scientific experts consider only themselves as being able to calculate risks accurately (Donoghue, 2008, 341; Mehta, 1995, 185).

This section will examine food biotechnology in the context of risk society. Public concerns over food safety and risks of biotechnology are heavily influenced by the mass media (Douglas, 1985, 65). The scholars of risk society do not posit that societies

are becoming more dangerous, but that perceived risks are a reflection of culture (McIntosh, 1996, 42; Beck, 2000, 213). Modern, globalized capitalism and disagreements in the mass media have led to a risk society (Beck, 2000, 213). In the risk sociology of Beck, it is increased public knowledge of technological advancements which provides people with a better understanding of present risks and enables them to predict future ones (McIntosh, 1996, 42).

In risk society, the public perceives food risk not as based on likelihood of an event, but on the severity of adverse affect if the risk is realized (Beck, 2000, 213). For example, during the BSE (Mad Cow Disease) crisis in Britain, the likelihood of a particular individual developing Creutzfeldt-Jakob Disease (CJD), the human incarnation of the disease, was “probably no higher than in [winning] the weekly lottery” (Beck, 2000, 217). Yet there was intense public distress because consumers were terrified that they may fall victim to the life changing reality of the disease (Beck, 2000, 217). Additionally, BSE was seen as threatening the whole system of food security. In mass media, differential approaches and potential biases in news coverage resulted in varying portraits of risk by individual outlets. These differences led to a condition in which expert knowledge was called into question and uneducated opinions were given sway in the mass media, opening “the flood gates of fear” (Beck, 2000, 217).

As Beck notes, the situation of the European BSE crisis presented a highly visible and recognized risk to the public (Beck, 2000, 217). However, this type of event is unusual. Beck comments that consumers continually use strategies to manage perceived food risks from pollution or other forms of contamination that “completely escape human powers of direct perception” (Beck, 1992, 27). Additionally, the number of potential risks is continually expanding such that risk is impossible to avoid, but rather it must be

managed according to levels deemed to be acceptable (Beck, 1992, 55). In this thesis, Beck's risk theory is applied to contextualize the risk implications of genetically modified foods. His Risk Theory is of particular relevance as it illustrates the historical situation of food risk shortly before the release of GM foods onto the mass market.

McIntosh considers concerns over food safety to be a quintessential example of the realization of risk society (McIntosh, 2006, 45). He comments that the public has grown wary of the veracity of food labeling regulations, "as the amount of information and its inconsistencies increases, fear and mistrust must also increase" (McIntosh, 1996, 43). He posits that some nervous consumers are switching their trust to food products marketed as being free of genetic modification (McIntosh, 1996, 43).

In risk society, there is a destabilization of public trust placed in industry and government to manage safety (Beck, 2002, 213). Foucault posits that in modern society, individuals are seen by each other and the political structure as being responsible to manage their risks (Ali, 2000, 1). In the case of food biotechnology, perceived risks are exacerbated through mass media's portrayal of individual responsibility in risk management without providing precise or consistent information on how to minimize risk (Beck, 2000, 213).

The propagation of genetically modified foods is seen by many scholars as an unnecessary frustration to risk management (Mythen, 2004, 163; Mehta, 2003b). Mehta posits that Canadian public perception of GM foods has become tempered by risk (Mehta, 2001a, 218). Douglas notes that public perception of risk is heavily influenced by the mass media, and contends that the public underestimates risks which are commonly understood, such as "death from asthma" and overestimates new risks and those given cinematic presentation in the mass media (Douglas, 1985, 65).

The state of risk society is “no longer [of] trust / security, not yet destruction / disaster” (Beck, 2000, 213). It involves concerns over a reduction in local control (McIntosh, 1996, 43). Risk features prominently in discussions of food biotechnology (Mythen, 2004, 163). That expert opinion should be perceived as hard evidence has diminished, especially in the case of genetically modified foods, where the intentions of the experts have come under increasing scrutiny (McIntosh, 1996, 44; Mehta, 1995, 185). Governments seeking to inform public risk perceptions are generally unsuccessful as the public tends to perceive the risk of the worst case scenario rather than the statistical likelihood of an adverse event (Douglas, 1985, 31).

Disagreement between scientists and others presented in the mass media threatens public perceptions of scientific knowledge as objective, rational, and certain (Douglas & Wildavsky, 1982, 49). Contributing to consumer fears is the rise in publicity of “unintended consequences” resulting from initiatives involving science and technology (McIntosh, 1996, 42). Adding further to perceptions of risk is that experts often contradict each other (McIntosh, 1996, 44). With highly publicized differences in expert portrayal of risk, varied opinions of the ramifications of biotechnology are propagated. This discussion of the genetic modification of food and potential risks invites consideration of the philosophical implications of biotechnology for the social self.

1.4- Biotechnology, Nature, and Philosophy of the Self

The high prevalence of agricultural biotechnology in food products available for human consumption kindles many questions for philosophers. This section will examine a selection of philosophical inquiries relating to the extent of a boundary between nature and biotechnology in the philosophy of the self. Though in classical sociological thought,

there was often a clear distinction between nature and culture (Fenton, 2006, 35-6), in modernity, biotechnology has evolved to the point of having many of the powers once attributed to God (Palladino, 2003, 86). Sarah Franklin comments that the practice in the biotechnology industry of modifying the very essence of life is strongly influencing the “future of the environment, food, wealth and health” (Franklin, 2006, 168).

Eugene Thacker notes the goal of biotechnology is to transform the biological into data “in such a way that the biological can be improved, enhanced, or analyzed in further detail” (Thacker, 2003, 77). This scientific rationality contributes to a philosophical position for the self in which the natural is viewed narrowly as set of resources to be exploited (Thacker, 2003, 77). In this logic, Thacker draws on Bruno Latour’s insight that the natural is seen as a starting point which *should* be enhanced through scientific and technological inputs (Thacker, 2003, 77; Latour, 1999, 122-23).

The publicly projected viewpoint of the biotechnology industry that nature may and should be enhanced signals a return to “the spectre of the Cartesian subject” (Palladino, 2003, 81). In this spectre, the philosophical logic of industrial production seeks total control of nature (Latour, 1999, 123; Zizek, 1999, 1). The technical logic of corporate genetic modification implies a continual necessity to enhance everything, including life (Palladino, 2003, 81). In the case of food biotechnology, nature and the social self seen as being constrained by corporate scientific rationality. To illustrate this point, Palladino alludes to a crooked tree tied to a straight wooden pole to show the absurdity of the desire to totally control nature (Palladino, 2003, 82). The living tree is forced to conform to mechanistic rationality by being bound to a modified, dead version of itself.

Technological management of the natural has had profound impacts on the social self (Franklin 2006, 168). An example which helps to explain the placement of the self in the context of biotechnology exists in the situation of elite sport. The presentation of a dichotomy between the natural and synthetic is a central tenet of both the Protestant Ethic and of sport. One is considered a cheater if banned drugs, substances or some forms of biotechnology are used in competition, yet the “context of elite sport is itself highly artificial” (Hilvoorde, Vos & de Wert, 2007, 173). However, the concept of fair competition is given high rank (Hilvoorde, et al., 2007, 188). Biotechnology could be used to equalize athletes’ starting positions (Hilvoorde, et al., 2007, 176), however it will more likely be “just another path for inequity to take” (Hilvoorde, et al., 2007, 188). Furthermore, elite athletes are expected to enhance themselves, yet they are disqualified if they are seen as “transgressing the boundaries of a nostalgia for an innocent, human, pre-cybernetic body” (Hilvoorde, et al., 2007, 176).

The remnants of the Protestant Ethic in biotechnology increase both the expectation of responsibility for the self and at the same time its limitation within social norms (Palladino, 2003, 82). However, the character of consumption has moved beyond the Protestant Ethic and into risk society (Beck, 2000, 213). There is a similar logic to perceptions of food politics. The interplay of food production and technology, considered in constellation with market-driven aesthetics, contributes to a sense of identity influenced by consumption (Moisio, Arnould, & Price, 2004, 364). Adding an additional layer of complexity, there is a public desire to return to the stability of previous, non-risk based societies through perceived maintenance of an artificial barrier between the natural and the unnatural (Hilvoorde, et al., 2007, 176).

However, counter to the dichotomous control of culture over nature espoused by industry and some consumers, biotechnology actually obscures these distinctions (Franklin, 2006, 168; Thacker, 2003, 77). Franklin comments that by creating products to address the *problem* of the natural, the biotechnology industry is inevitably crossing and transforming boundaries it seeks to enforce (Franklin, 2006, 168).

Technological advancement and rationality have caused a shift from humanity to posthumanity (Hayles, 2006, 160). The duality presented by the Cartesian spectre is viewed as reductionist in posthumanity which is concerned with the transformation of the self in discursive reference to technological change (Lenoir, 218). In posthumanity the human mind is offered transformation through technology (Zizek, 2000, 35). Zizek notes that there is a debate amongst philosophers as to the posthuman implications of information technology (Zizek, 2000, 34). He continues that some theorists view the present technological era as heralding the arrival of disembodiment such that the mind is “freely floating between different embodiments” (Zizek, 2000, 35). However, other philosophers interpret the posthuman situation differently, as being vitally embodied (Zizek, 2000, 35; Hayles, 1999, 3; Lenoir, 2002, 203). In posthumanity, the body and indeed nature are not sacrosanct from enhancement. In the context of post humanity, boundaries between human / machine and natural / mechanistic dissolve (Hayles, 1999, 3).

Drawing on the insight of Latour & Akrich (1992), Tim Lenoir comments that contrary to perception of technological information and knowledge as being disembodied, human bodies are engaged with technology in “almost all aspects of technical practice, as well as modes of communication and interaction, through smooth and unbroken articulation with intelligent machines” (Lenoir, 2002, 203). The subjective self tends to

be seen as being endangered by technologically-driven rationalism, however, the state of the posthuman allows for symbiosis between nature, culture, and technology (Lenoir, 2002, 211; Hayles, 1999, 3).

In terms of the food industry, there are many layers of consideration in the philosophy of demarcation between the natural and the technological. The implications for the social self from the biotechnology industry's conquest of nature are further complicated by the rise in popularity of the organic food market. The discussion of separation or continuity between nature and biotechnology is not completely applicable to organic foods. In the case of organic foods, industry is seen not as prescribing a duality, but a triangle of three categories; natural, organic, and technological (Mansfield Mansfield, 2004, 222).

Organic food consumption is seen by many consumers as a rebuttal to the arbitrary separation of the natural and the social (Mansfield, 2004, 216). Mansfield cites American legislation excluding wild fish from organic certification, observing that policy makers made a clear distinction between natural and organic. Wild fish, she articulates, did not qualify for organic certification in the United States because it is seen as a product of nature while organic foods are seen as products of technology (Mansfield, 2004, 222). In Mansfield's discussion, she posits organic foods occupy a third space between the natural and the technological. Organic certification prohibits certain technologies, but it is not wholly natural (Mansfield, 2004, 222). Rather, it occupies a hybrid middle ground "that mimics natural processes" (Mansfield, 2004, 222).

As the philosophers in this section have illustrated, there is a nuanced tension involving nature and technology. Dualistic distinctions between the two are shown as being arbitrary and inadequate to comprehend the complexity for the self of the

interactions and overlap of natural and technological. The state of the posthuman rests on an intermeshed sense of natural and technological, such that these are not in opposition, as duality would suggest, but that rather they are component parts of a diffuse system.

1.5- Synopsis

This chapter has considered many implications of food consumption for the social self. Commencing with an overview of the consequences of food labeling, a portrait of aesthetic marketing tools tied to perceptions of identity emerged. Inquiry then shifted to consider food consumption and class-status in the context of advancing capitalism. In modernity, the Protestant Ethic, which was once the vanguard of capitalism, went through a process of disintegration, eroding public trust in governments and corporations. In this modern condition, the shift to a society preoccupied with risk was hastened by disagreement in the mass media about potential risks and growing responsibility placed on the individual to manage their own risks. Portrayed risks stemming from the biotechnology industry practice of genetically altering the natural were pondered. This led into a discussion of the philosophical relationship of nature and the technology.

The concerns raised in this chapter establish a backdrop to the framework for inquiry in the balance of the thesis. The second chapter delineates the methodological approaches taken. The third chapter employs textual analysis to examine first how food labels are regulated, and analysis then shifts to examine the portrayal of genetically modified foods by the biotechnology industry. Once the regulation and industry perspectives have been adjudicated, grocery store marketing strategies for organic, free range, fair trade, and genetically modified foods in the province of Québec are

scrutinized. The fourth chapter use semi-structured interviews to ponder the implications of the scholarly literature and the data resultant from the textual analysis.

Chapter Two

Methodology

2.1- Research Design

This project assesses Canadian regulation of organic, free range, fair trade, and genetically modified foods through textual analysis. Once the regulations have been explored and evaluated, textual analysis shifts to look at how the biotechnology industry literature presents genetically modified foods. Following this is an analysis of the marketing strategies of the three largest grocery store chains in Québec. As a reflection upon the data gleaned from textual analysis, semi-structured interviews are conducted to explore respondent understandings of food politics and labeling. This chapter will address the theory and application of the research methods used in the thesis.

Textual Analysis Theory

The majority of the research data is gathered and evaluated through textual analysis. The method used is guided by the main points of qualitative research analysis as delineated by Spencer et al (2003). The method is then further structured around the data available. Many scholars have followed this approach of allowing the data to shape the method to enhance depth of research inquiry while maintaining academic rigor (for e.g.: Spencer, Ritchie, & O'Connor, 2003, 211; Perakyla, 2000, 870; Webb et al., 1984, 126). As these scholars indicate, building the methodological approach around first general tenets of qualitative research analysis, and then more specifically around methodological tools particularly relevant to the form of the data, provides a method which is both academically sound, and responsive to the data.

The groundwork discussed by Spencer et al for qualitative research is used as a guide for the textual analysis. This groundwork has four central tenets which are seen as

crucial to the formulation of qualitative analysis. The first principle outlined by Spencer, et al is “the status of the data” which endeavors to decide whether the data is referential and representative of events, or whether it is indeed “situated” as the event of study (Spencer, Ritchie, & O’Connor, 2003, 202). Another criterion is determination of the “primary focus of analysis” within the more general field of qualitative research. This specialization of method yields formulae for conducting rigorous qualitative study (Spencer, Ritchie, & O’Connor, 2003, 202). The third criterion for qualitative analysis is “the way data are reduced,” necessitating distillation of the raw data which is often “voluminous, messy, unwieldy” into a systematically categorized and classified vital form (Spencer, Ritchie, & O’Connor, 2003, 202). The fourth essential criterion for the propagation of valid qualitative research is a profound consideration of “the kinds of concepts generated (Spencer, Ritchie, & O’Connor, 2003, 202).” This consideration involves a process of abstraction such that “key terms, concepts, or categories” are justified and theorized.

In addition to these central tenets, Spencer et al. provide several tools which may be used by qualitative researchers to allow for depth, but also precision in data collection. These are: grounding, synthesis, ordering, cross referencing, representative coverage of the data, flexibility, and transparency (Spencer, Ritchie, & O’Connor, 2003, 210-211). These tools are not mutually exclusive. A grounded approach allows the theoretical perspective to evolve reflexively throughout the process of data collection and analysis (Spencer, Ritchie, & O’Connor, 2003, 210). Effective synthesis of the data provides the reader with an understanding of how the researcher categorized and systematized the information gathered. It also provides a way of seeing the way the raw data are interpreted (Spencer, Ritchie, & O’Connor, 2003, 210). With most in-depth data it will

not be easy for the reader to see categorization in its raw form, so it must be strained into its component parts through ordering (Spencer, Ritchie, & O'Connor, 2003, 210).

Additionally, the data must be organized in a way that permits cross referencing. The researcher must be able to see a summarized version of the data in a format which facilitates examination of themes and clusters (Spencer, Ritchie, & O'Connor, 2003, 210). Another facet of research described by these researchers is "comprehensive coverage of the data" which strives to insure a balanced approach to the evaluation of data such that minutiae are not allowed to be given too much reference, or to be eliminated altogether (Spencer, Ritchie, & O'Connor, 2003, 211). As "new ideas, refinements, puzzles, can occur at almost any stage of a qualitative analysis," there is a need to have a flexible methodological approach to be able to capitalize upon increasingly detailed levels of analysis, as the data permits. A final essential tool in the process of solid qualitative research is that of transparency. Research employing this tool will be accessible to readers, and will be strong against critique (Spencer, Ritchie, & O'Connor, 2003, 211).

These guidelines and tools, articulate an "analytic hierarchy" which moves in the stages of: exploration, description, and finally assessment; from an initial gathering of data to theoretical abstraction (Spencer, Ritchie, & O'Connor, 2003, 213). They support the necessity to "build a structure of evidence within which the building blocks of the analysis can be seen" as this will allow enough flexibility for researchers to gain valuable and perhaps unanticipated insight into their data (Spencer, Ritchie, & O'Connor, 2003, 213).

Given the commonly ascribed flexibility found in qualitative research, "approaches to analysis vary in terms of basic epistemological assumptions about the nature of qualitative enquiry and the status of researchers' accounts" (Spencer, Ritchie, &

O'Connor, 2003, 200). The specific method chosen for the textual analysis in the thesis is a combination of Content Analysis and Policy and Evaluation Analysis. Content Analysis involves an adjudication of documents through content and context (Spencer, Ritchie, & O'Connor, 2003, 200). Researchers employing this method look for themes in the text, presentation style and frequency of themed message, as well as the demographic of the author (Spencer, Ritchie, & O'Connor, 2003, 200).

The second methodological approach used is called Policy and Evaluation Analysis which “is targeted towards providing *answers* about the contexts for social policies and programs and the effectiveness of their delivery and impact (Spencer, Ritchie, & O'Connor, 2003, 201). It is often useful to merge methodologies to suit data. In many cases, “distinctions are not always clear cut, however, and qualitative traditions and indeed individual studies, often cross boundaries” in order to provide comprehensive evaluation of available data (Spencer, Ritchie, & O'Connor, 2003, 201). This combined method will be henceforth referred to as simply *textual analysis* for the balance of the thesis.

Applied Textual Analysis

The method of analysis used in Chapter Three was based on the criteria and tools for qualitative research described by Spencer, Ritchie, & O'Connor (2003). This general methodological approach became refined and specialized as it became clear which types of data were available. In each of the first three sections of Chapter Three, different forms of textual analysis were performed.

In Chapter 3.1, the project assesses regulatory standards for organic, free range, and fair trade foods. Analysis of Canadian regulations governing food labeling is

conducted on two levels. The first level of analysis delineates the meanings of these labels as well as areas of convoluted or weak regulation. Silverman notes, in textual analysis, “a text can be analyzed as a system” (Silverman, 1985, 149). The structure of food regulations is highly systematized as it is manufactured through several bureaucracies and forms the rules by which businesses must label and consumers are safeguarded. This system, especially in terms of the complexities of overlapping jurisdiction between bureaucracies is of particular need of evaluation as it complicates potential for consumer understanding and protection.

Though the rigor of these standards is essential to consumer protection, consumers must also be aware of these regulations to take full advantage of them. The second level of analysis evaluates ease of public access to these standards. As the internet is the most accessible resource for the majority of the Canadian population (Statistics Canada, 2006) it was chosen as the medium for textual analysis. By performing an internet search for *Canadian food labeling regulations*, the Canadian Federal Government, Canadian Food Inspection Agency, and Health Canada websites are among the first displayed. Through these websites, publicly accessible links to the regulations are explored.

In the second section of Chapter Three, textual analysis is performed on the Council for Biotechnology Information (CBI) website. This website represents the collective voice of the most influential biotechnology, chemical, and pharmaceutical corporations in North America including “BASF, Bayer, Dow, DuPont, Monsanto and Syngenta and two trade associations, the Biotechnology Industry Organization and CropLife America” as founding members (CBI, 2007). The website was chosen for textual analysis since it is the first corporate website displayed in an internet search for *biotechnology information* using both the Google and Yahoo search engines, and it

represents a unified voice of the most significant biotechnology corporations in North America.

The claims made by the industry website are examined and analyzed. In the website's archive, both the information provided, and its format are considered for bias. In examining archival data, the primary sources of bias are "selective deposit and selective survival" (Webb et al, 1984, 114). Consideration of this is of high value because selective presentation of fact and opinion is problematic since "words are not a preliminary to an investigation of reality, they are a reality in their own right" (Silverman, 1985, 149).

The adjudication of the claims made by this website also involves a critique from the perspectives of government regulators and scholarly non-governmental organizations. As textual records "have been produced for someone else and by someone else" it is imperative to search for "mistakes or omissions" (Webb et al, 1984, 128). In instances where governments or non-governmental organizations' scholars dispute the claims made by the CBI, a rebuttal and analysis of the dispute is made.

The third section of Chapter Three is concerned with textual analysis of the websites of the three largest grocery distribution chains operating in Québec: Loblaw's, IGA, and Metro. These chains own many subsidiaries in Québec and elsewhere. The ways in which they present organic, free range, and fair trade foods are examined for presentation and the ways in which they project interpretations of regulation.

One must examine both the "actual words used" and the content therein in qualitative analysis (Spencer, Ritchie, & O'Connor, 2003, 214). The linguistic conventions and phrasing used on the websites are explored in this section to distinguish between regulatory fact and marketing slogan. The selective presentation and omission of

facts discussed in the previous section is evaluated. In this section, an evaluation of how government regulatory standards are digested and interpreted by these corporate websites into a vernacular source of information for the public is conducted.

The theoretical discussion of qualitative research methodology at the beginning of this chapter notes the difficulties of working with raw data. A tool for managing data is tabulation such that “with code and retrieve methods, the analyst views data in textual chunks which have been sorted according to category or theme or have been collated in relation to another category or variable” (Spencer, Ritchie, & O’Connor, 2003, 204). In this way, the data have been tabulated by subject keyword to provide ease of access to the reader. The descriptive categorization produced by the tables is a foundation on which an investigation to understand the “patterns, the recurrences, the *whys*” is cemented (Spencer, Ritchie, & O’Connor, 2003, 205). There is one table for each of the three companies. From the analysis supported by the tables, the reader is able to see cross references within and between the companies and food label types. Analyses and conclusions have been drawn from this information, but it is still included in its tabulated form in Appendix II, to allow readers to see how and on what basis, interpretations were drawn.

Interview Method Theory

The technique of semi-structured interviewing is well established (Corbetta, 2003, 270). However, since there are different refinements in approach between researchers, the strategy used in this thesis will be delineated. Qualitative interviewing, of which semi-structured interviews are a subset, has several general tenets. The starting point for qualitative interviewing is recognition of an “attempt to collect data by asking people questions” (Corbetta, 2003, 264). There are several tenets of established qualitative

interviewing technique relevant to this thesis. First, the interview is “elicited by the interviewer” and the choice of interviewees is made for the purposes of a “data-gathering plan” (Corbetta, 2003, 264). This methodology “has a cognitive objective; it is guided by the interviewer” and allows flexibility (Corbetta, 2003, 264)

In qualitative interviewing methods, the potential respondents are chosen as members of a target group of interest. This grouping of respondents may be based on their interests, demographics, philosophies, common experiences etc. (Corbetta, 2003, 265). Structured conversation is desired within the framework of the researcher’s interest and “cognitive aims set” (Corbetta, 2003, 265).

This type of interview is not statistically representative of a larger population though it seeks “substantive representativeness” (Corbetta, 2003, 268). Rather, it is a type of research providing greater depth than quantitative methodologies, but with fewer respondents. Corbetta argues that quantitative methods only scratch the surface of an issue, while qualitative ones provide the flexibility and time needed for deeper discussion, though necessarily with fewer respondents in a given period of time (Corbetta, 2003, 267).

The practice of qualitative interviewing often has the interviewer make an appointment or introduction before the interview itself is conducted to ease potentially disconcerted respondents into a position of trust (Corbetta, 2003, 277). However, in some cases this approach is not effective due to “difficulty of identifying *a priori* which subjects are of interest to the research (Corbetta, 2003, 268). Or, in the case of this thesis, it was difficult to find willing respondents. As just mentioned, one of the most difficult aspects of this methodology is attracting respondents. The researcher must quickly

“establish a relationship of trust” such that the potential respondent is receptive (Corbetta, 2003, 277).

A powerful tool in the conduction of semi-structured interviews is referred to as *probing*. This technique is designed to attain high quality data by making the respondent feel respected, engaged, and needed. The specific employments of this tool include voice prompts and body language such as “repeating the question, repeating or summarizing the answers given, encouraging and expressing interest, pausing, asking for elucidation” (Corbetta, 2003, 278).

Based on these common threads of qualitative research, semi-structured interviews are more specialized. In this format, the researcher creates a list of main points or questions which will be used to mediate the flow of discussion (Corbetta, 2003, 270). Using this methodology, “the content, but not the form of the questions is pre-determined” (Corbetta, 2003, 272). In this case, the “order... and wording” of the questions or points of discussion is not rigidly dictated, but rather it is adapted to maintain a complete and relevant flow of conversation (Corbetta, 2003, 270). However, the researcher must be careful to use vernacular and clear language (Corbetta, 2003, 278). This assists respondents in discussing issues on point and at their leisure (Corbetta, 2003, 271).

In analysis of semi-structured interviews, individual cases are treated as the locus of investigation (Corbetta, 2003, 281). Since this type of method produces richly detailed respondent accounts, direct quotes are typically used to capture the poignancy of their discussion (Corbetta, 2003, 281). In order to make interview data accessible, it is typically transcribed into text. In the case of this thesis, it is tabulated for analysis. The

tables of respondent data are intriguing and have been included in Appendix III for the prevue of readers.

Applied Interview Method

In Chapter Four, semi-structured interviews are used to gauge respondent awareness and perceptions of food labeling. Respondents are professors in the departments of philosophy, natural science, and business from English universities in Montréal (McGill and Concordia) whose research expertise as listed on university websites highlights at least one of the following: agricultural sustainability, food safety, genetically modified organisms, biotechnology, or rural economy. These interviews serve in an exploratory capacity to act as a tool for pondering the issues discussed in Chapter Three.

These departments and research interests have been selected to situate the framework of inquiry for the interviews by providing emphasis or focus to differing facets of inquiry and enabling perspectives from different perceptual vantage points. Speaking with philosophers provided an understanding of implications of food consumption from the points of morality, ethics, humanism, and religion. Interviews with natural scientists who had extensive knowledge of biotechnology contributed their expertise on the science of genetically modified foods. This brought credibility to discussions of perceptions of risk of biotechnologies. In speaking with professors of business, marketing strategies for food types are illuminated. There is animated discussion of labeling as a tool of marketing. The business interview sheds light on the relationship between business and labeling aesthetics.

The respondent groups were designed to consist of three professors from each selected department. Due to respondent concerns over anonymity and a greater number of available professors with relevant research expertise at one university than the other, the proportions of respondents from McGill and Concordia is not revealed or considered relevant.

The method of selecting respondents commenced with a search for academics with relevant research interests on the Concordia and McGill University websites. Though the initial selection of potential respondents was based on research interests, a randomization process followed. Separate lists of academics' names which fit participation criteria were compiled for each department. Academics with broad research interests were considered, so that there would be many more potential respondents than needed. The initial methodology consisted of drawing three names at random from each list then contacting those people by email. If potential respondents did not answer after a period of one week or declined participation, other names would be drawn and those new potential respondents contacted until there were three interviewees from each of the selected departments who agreed to participate.

However, this did not prove to be an effective way of meeting with respondents. Professors receive an enormous number of emails, and they are not often able to make additional commitments for meetings. In a four week period, after having emailed about twenty professors, only one interview was completed successfully. Of the four people who responded to the emails, two of them were unable to schedule a mutually acceptable meeting time, but two other meetings did occur using this selection method. One of these interview respondents later rescinded consent and their data was destroyed. Given the limited number of potential respondents left, a methodological shift became necessary.

Departments at Concordia and McGill publish professors' office locations. To randomize the sample, each department was visited on random business days, and relevant potential respondents who were in their offices at the time were approached. Interviewing took place in numerical order of offices. A maximum of two professors were interviewed per department and then the necessary number of respondents at the other university were sought out to bring the total number for the department to three. If the number of available professors at the second university was insufficient, the first was revisited. This form of seeking interviewees is certainly less courteous than an email, but it had a very high yield.

Over the course of the project, seven usable interviews were conducted. Three philosophers, three scientists, and one business professor agreed to be interviewed. Unfortunately, one of the science respondents' tapes was corrupted beyond repair. Also, for the business professors, the idea of putting their signature on a consent form made them nervous, and as such, only one respondent in this field agreed to participate. The interviews were framed such that they would take approximately 30 minutes to complete, with an option for discussion afterwards if the respondent was interested. Almost all of the respondents gave more than an hour of their time for this project.

There were many factors for having academics as respondents. The work is of mutual interest to respondents and researcher. Professors were accessible to this research as well as having relevant expert knowledge. Their campus offices enabled a comfortable space where neither researcher nor respondent felt obligated to make purchases or enter a strange environment. As both consumers and experts, professors could increase general knowledge of food politics and labeling for their students, and potentially effect policy change for better labeling in their capacities as academic consultants.

After meeting respondents, they read and signed the informed consent form. Each of the respondents agreed to have their interview recorded. They were informed that after the questions had been posed, that they would be invited to comment generally on their interests relating to the topic. This interviewing technique provided both the structure of formal interviewing and the spontaneous nature of conversation as available in open-ended interviewing methodologies.

Research Questions

How do academics in selected departments from English universities in Montréal (whose research interests mention at least one of the following: agricultural sustainability, food safety, genetically modified organisms, biotechnology, or rural economy) understand food politics and labeling?

- How do respondents understand differences and similarities between organic, free range, fair trade, and genetically modified foods?
 - a. What types of risks are associated with these types of foods?
 - b. What are respondents' consumption habits?
 - c. What are main reasons respondents consume particular food types?
 - d. Do differences in respondent demographics such as educational positionality appear to be significantly related to attitudes?
 - e. Do respondents discuss food safety and politics in their classes or conduct related policy consulting?

2.2- Scope and Limitations

Scholarly literature introduces the project and situates the data gained from textual analysis of government and corporate documentation. Interviews are used to further examine the complexities of food politics and regulations. The scope of analysis focused on food regulations and marketing strategies for the organic, free range, and fair trade food labels. The analysis was performed on government standards which change frequently. During the course of the preparation of this thesis, the standards changed, and this was accounted for in the analysis. However, the regulations and corporate literature

will continue to change over time. This points to the research as being historical rather than flawed. As the standards continue to evolve, it will be of interest to revisit this thesis and compare its data with that of future proposed research in this area.

The textual analysis of the Council for Biotechnology Information website illuminates how the industry promotes their products to the general public. However, in the future it would be of great interest to interview a sample of farmers who produce genetically modified, organic, free range, and fair trade products. This was outside the scope of the thesis due to time and financial constraints. It would also have been preferred to conduct interviews with representatives of the three main Québec grocery corporations in addition to the textual analysis conducted of their websites. Many attempts were made to arrange interviews with various representatives of each of these corporations, but they were all declined.

In terms of the scope of the semi-structured interviews, there were a small number of respondents which may be seen as a limitation. Yet the interviews were not intended to be representative of a population nor were respondents the principle source of research data. Rather interviews acted as a way to test the relevance of the paper's theoretical position and as a gauge to help identify which of corporate or government regulatory literature had been most effective in shaping respondents' understandings of food labeling. Most of the respondents became very interested in discussing their related research, and gave detailed commentary.

There were a discrete number of potential respondents, and some of them voiced specific concern that the sample needed to be small enough that it would not be possible for a reader to determine the identity of the respondents. In most situations, a larger respondent pool would be better for identity protection. However, there were only a

handful of professors in one of the departments selected who met the criteria for participation. Two respondents were concerned that if more than three people were interviewed in their department, that it would approach the population, and not a sample. If this was the case, readers would be able to determine which professors had participated. At the explicit request of some respondents, their listed research specializations have been generalized.

2.3- Contributions

It is hoped there will be a modest contribution to the academic community. The academic group of potential respondents is in the unique position of being able to educate and create awareness for hundreds of students. Interested academics have been offered copies of the final report and of the relevant government standards. It is hoped that this work will assist their efforts to increase student awareness of food politics and labeling in ways pertinent to their courses. It is also hoped that this research will, in a small way, be beneficial to increasing general understanding of food labeling implications. Transfair Canada, the company which provides certification of fair trade products in Canada, has expressed interest in publishing an article based on this thesis on its website.

2.4- Ethical Issues

Before commencing this thesis, a research ethics proposal was approved by the Ethics Committee of the Department of Sociology at Concordia University. It was essential to gain informed permission before conducting research with human respondents. All respondents read an informed consent form prior to participation. Respondents were encouraged to keep a copy of the form for their records if they were so inclined. The consent form is explicit in delineating the rights and responsibilities of the

researcher and the respondents. Respondents were made aware that they were welcome to discontinue their participation at any time, and could elect to have their data destroyed within two business days. A sample of the interview consent form is attached in Appendix I. One note on the consent form is its coverage. The form was designed to be used for semi-structured interviews with both academics and business representatives of the grocery chains. Since only academics were accessible, the portions of the consent form relating to the industry representatives are to be disregarded. The form gives a concise and honest description, in plain language, of the purpose of the project and how data will be gathered and used. There is no deception. Research ethics go beyond the need for informed consent. There must be a procedure for protection of respondents and management of potential risks. Confidentiality and data handling must be clearly explained. This is established in the attached consent form.

Chapter Three

This chapter examines food regulatory and marketing strategies. The constituent sections use the research method of textual analysis. The first section analyzes government food labeling regulations in Canada. The second critiques the information espoused by the biotechnology industry. The third section examines how organic, free range and fair trade foods are marketed on the websites of the three largest grocery retailers in the province of Québec.

3.1- Canadian Federal and Québec Regulatory Literature on Food Labeling

To enable informed choices and enforcement of standards for quality and safety, it is imperative to make clear the labeling regulations for different categories of foods in Canada and Québec. According to the Canadian federal government, food labeling regulations are governed by the Canadian General Standards Board and the Canadian Food Inspection Agency with some input from Health Canada (Agriculture Standards Board, 2007). The Canadian General Standards Board (CGSB) articulates, the term *label* means “any legend, word, or mark attached to, included in or on, belonging to, or accompanying any food or package containing food” (CGSB, 2004, 2). Foods labeled as organic, free range, and fair trade, are consumed in large quantity, however, it is doubtful there is clear public understanding of what exactly these labels mean. There is no mandatory labeling of all genetically modified foods in Canada. It is therefore very difficult for consumers to understand the production techniques of food being consumed if it is unlabeled. Food manufacturing companies seek to make their products appear enticing through packaging and labeling. However, the public may be misled by labels if they are unaware of the legislation concerning certain types of labeling. Public perceptions of foods are likely misinformed due to difficulty of access to actual

government regulations coupled with the high prevalence of advertising on food labels. The following paragraphs summarize the complexity of food labeling regulations in Canada.

In Canada the labeling, branding and marketing of foods is regulated by the Federal Government, though Québec, Ontario, and British Columbia assert their own additional regulations. The foundational research for this thesis took place in Montreal. Therefore the Federal and Québec regulatory standards have been analyzed. Over the period of conducting this thesis, the Federal regulations governing organic labeling have changed. In March 2007, it was extremely difficult to find the standards at all. As of March 2008, the Canadian Food Inspection Agency has revised their website to be much more easily accessible. One may search for summaries of the standards and labeling information from the main website. However, the government standard for organic is again under revision, and is therefore not easy to access. The present revision process will not be fully implemented until December 14, 2008.

Canadian federal standard for organic certification

The most recent organic standard which is available, that which was instated in 2006 is analyzed. The Government of Canada's Food Inspection Agency (CFIA) accepted two voluntary methods of verifying authenticity and rigor of foods labeled as organic. These verifiers are labels titled Certified Organic and Canada Organic, the latter of which is a very recent standard (Canada Organic Office, 2007). The government standard for organic certification is non-binding at present, and is not necessarily the same standard used by companies who claim to sell organic foods. The standard for Canada Organic is based on the present standard for organic certification, but is still in the process

of being formulated. Until December 14, 2008, there will be no obligatory regulation of organic foods in Canada. This means that the standards which one company uses to determine whether a product is organic may not be similar to those of another company distributing foods with the same designation in Canada. When complete, the Canada Organic regulations will provide specific, uniform, stringent, and mandatory regulations for labeling foods as organic (Canada Organic Office, 2007). The existing federal standard is summarized below:

- Protect the environment, minimize soil degradation and erosion, decrease pollution, optimize biological productivity and promote a sound state of health.
- Maintain long-term soil fertility by optimizing conditions for biological activity within the soil.
- Maintain biological diversity within the system.
- Recycle materials and resources to the greatest extent possible within the enterprise.
- Provide attentive care that promotes the health and meets the behavioral needs of livestock.
- Prepare organic products, emphasizing careful processing, and handling methods in order to maintain the organic integrity and vital qualities of the products at all stages of production.
- Rely on renewable resources in locally organized agricultural systems (CGSB, 2006).

As of March 4, 2008, this standard is still available in full at the following internet address: http://www.pwgsc.gc.ca/cgsb/on_the_net/organic/032_0310_2006-e.pdf.

However, there is no link to it on the CFIA website because the standard is being revised.

The revisions to the federal standard are expected to take until they are implemented at the end of 2008 (Canada Organic Office, 2007).

The government website cited for the standard as of June 2007 identifies a long list of chemicals and production techniques which are not permissible in organic production; for example many types of fertilizers, herbicides, sewage, drugs, radiation and irradiation, and preservatives are not allowed (CGSB, 2006, 1-2). In addition, “95% or

more (by mass or fluid volume, excluding water and salt) of the ingredients [in any food certified and labeled as organic] are obtained from sources of organic production in accordance with this standard” (CGSB, 2006, 28). Products which are greater than 70% organic by these same measures may be labeled as “contains x% organic” ingredients (CGSB, 2006, 29).

According to Health Canada, certified organic foods and products which “contain certified organic ingredients may display the following terms and symbols on the label: organic; organically grown; organically raised; organically produced; biological or biodynamic; and symbols for, alternative spellings of, word sets of and phonetic renderings of these words.” Each of the above terms may be preceded by the term *certified* (Health Canada, 2006). According to Laura Telford, a scholar and executive member of the Canadian Organic Growers, “to obtain the new 'Canada Organic' label, farmers are required to fill out an application detailing how they farm and the substances used in the production of their food” and the government will check compliance (Canadian Television, [CTV] June 19, 2007). There are many certification bodies approved by the federal government for designating organic status, but they are not listed in the federal standard for organic (Canada Organic Office, 2007). Pictured below are two of the most common certifiers, Canada Organic and Quality Assurance International:



Québec standard for organic certification

For organic food products sold in Québec, the provincial government's regulation supersedes that of the federal government. The newest Québec standards for labeling foods as organic were made effective January 1st, 2008. The organization mandated by the Québec Government to regulate organic foods is the Conseil des Appellations Reservees et des Termes Valorisants (CARTV). This standard applies to all foods labeled as organic in Québec. In comparison with the Federal standard, it is very similar. The English version of the Québec standard uses the vernacular, but there are problems with the translation from French. In summary, the standard uses "practices aimed at creating ecosystems capable of ensuring sustained productivity." It entails ways of managing pests without the use of genetically modified organisms (CARTV, 2008a). Furthermore, it prescribes recycling wastes, "crop rotation, and water management [such that]... soil fertility is maintained and improved" (CARTV, 2008a). Additionally, techniques such as using beneficial insects for reciprocal habitation of crops and wildlife are employed (CARTV, 2008a).

The main points of Québec organic food regulation follow: All products containing at least 70% organic ingredients (excluding water and salt) must be certified" (CARTV, 2008b, Section 1.2). Only products containing a minimum of 95% certified organic ingredients may be labeled as organic (CARTV, 2008f, Section 9.3). If any reference is made to a food using the words organic, biological, biodynamic, or ecological, or there is any attempt to allude to these words in reference to a particular food, it must be certified organic (CARTV, 2008f, Section 9.1)

Inputs such as manure must be approved of for organic production (CARTV, 2008b, Section 1.3). Products needing a service, such as slaughter for meat, must be

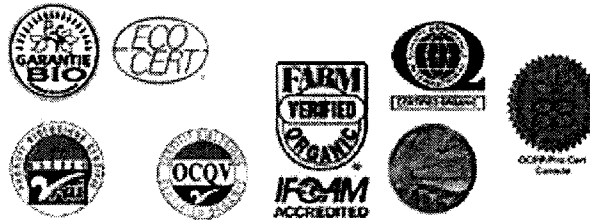
treated in such a way that their organic integrity is maintained by the service provider (CARTV, 2008b, Section 1.3). Prepared, direct-to-consumer foods such as TV-dinners are exempt from certification, but to call themselves organic products, they still must use organic ingredients (CARTV, 2008b, Section 1.4). Entities which prepare food in a very basic way such as cutting it into pieces do not have to be registered as having met organic standards if the foods in question were considered certified organic up until that point (CARTV, 2008b, Section 1.6). Restaurants and caterers may label their products as organic without having them certified (CARTV, 2008b, Section 1.6). These lapses in the regulations may be exploited by marketing slogans seeking to skirt the certification process. The certification exemptions are buried within the text of the standard, which may cause them to be overlooked or misunderstood by consumers.

Genetically modified organisms, and the possibility of contamination by GMOs are forbidden in organic foods (CARTV, 2008c, Section 2.1). Processed organic foods may not contain “inputs, additives, processing aids and ingredients derived” from genetically modified organisms (CARTV, 2008c, Section 2.2). Before being able to produce certified organic goods, farms must pass a rigorous series of tests, and must not have used “prohibited substances” on the land for set periods of time, depending on the type of food produced (CARTV, 2008d, Section 3). The Québec organic standard also stipulates a buffer zone between organic and non-organic locations of production (CARTV, 2008d, Section 3.7). Additionally, organic products may not be stored together with non-organic products (CARTV, 2008e, Section 10.1).

There is a plethora of certification bodies registered with the government to certify foods produced outside of Québec as organic. For foods produced in Québec, Ecocert Canada, International Certification Services, Organic Crop Improvement Association,

OCP / Pro-Cert Canada, Organisme de Certification Québec Vrai, and Quality

Assurance International are accepted as certifiers. Their Logos follow:



Canadian (including Québec) standard for free range

Another type of food label designation in Canada is *free range*. The labels and packaging on these foods often imply better treatment of animals than standard procedures, and possible health benefits for the consumer. Free range labeling regulations are vague compared with those for organic certification. The image of free range is sometimes associated with cruelty-free production, in small ecologically sound farms. This is easily evidenced though viewing packaging for foods labeled as free range. However, this is not necessarily an accurate presentation of what free range entails. There is no specific federal government standard, or even definition of free range labeling for foods sold in Canada according to the Canadian General Standards Board (Dolhan, 2007). However, the Canadian Food Inspection Agency does provide guidelines for what is acceptable in terms of being allowed to be labeled as free range. The government regulator criticizes the lack of standardization, though curiously it does not indicate a plan to strengthen regulation. The Canadian Food Inspection Agency states that:

Claims such as *free range*, *freedom raised*, *free run* and *free farmed* appear on labels and advertising and often no explanation accompanies these claims. Without an explanation accompanying these claims, the true meaning of these claims is difficult to identify (CFIA, 2004).

CFIA also states that for foods imported to Canada after being packaged in the United States, “claims of *free range* and *free roaming* are permitted on meat and poultry products as long as the animals are given access to the outdoors” (CFIA, 2004). The guidelines are open to interpretation. There is no officially regulated free range logo, the phrase *free range*, or phrases similar to it may be displayed on food packaging without definition or certification. It is also important to note that free range foods are often, but not necessarily, certified organic.

Canadian (including Québec) standard for fair trade

Another type of label manufacturers tend to apply to food packaging is titled *fair trade*. This label is becoming fashionable for many food products (TransFair, 2006). Fair trade standards are set by Fairtrade Labeling Organizations International, FLO (TransFair, 2008a). The Canadian Food Inspection Agency endorses the use of the fair trade Certified label by a company named TransFair (CFIA, 2006). Another fair trade organization mandated in Québec through the Canadian International Development Agency and the Canadian International Development Research Centre is called Equiterre and it follows the same standards as TransFair (Equiterre, 2008). The guidelines that TransFair Canada and Equiterre use in granting fair trade status are summarized below and available in full at www.transfair.ca

- Direct trade: The product is purchased by a North American importer as directly as possible from the cooperative (with few or no intermediaries).
- Fair price: The product is purchased at a constant and stable price, which can be 2 to 3 times over standard market price. An additional bonus is paid for products that are certified organic.
- Long term commitment: When purchasing a product, the importer is also committing to a long term relationship with the cooperative.
- Access to credit: Upon request, cooperatives representing producers may have access to credit of up to 60% of the purchase price or to pre-payment.

- Democratic and transparent organizations: Fair Trade Certified products come from cooperatives that are managed democratically and with the utmost transparency.
- Environmental protection: Producers abide by sustainable farming methods that also respect the environment. A large percentage of Fair Trade Certified products are also certified organic.
- Local community development: In addition to the fair trade guaranteed floor price, a social premium is paid to the cooperative and is invested in projects meant to improve the local communities' health, education, environment and economy (TransFair, 2006).

Certified fair trade foods in Canada bear this symbol:



Canadian (including Québec) standard for genetically modified food

In this paper, the operational definition of GM foods is that used by the CGSB for genetically engineered (GE) foods. This standard “refers to techniques by which the genetic material of an organism is changed in a way that does not occur naturally by multiplication and/or natural recombination” (CGSB, 2004). Also of importance to the constitution of genetically modified foods is the principle of substantial equivalence. Labeling of GM / GE foods is voluntary unless the principle of substantial equivalence is not met (CFIA, 2005). The Canadian Food Inspection Agency discusses the principle of substantial equivalence as follows:

The plant with a novel trait and the traditional plant are compared by CFIA scientists in terms of their molecular composition, and the potential of the plant to become a weed of agriculture or to invade natural habitats. The CFIA also examines the potential for gene-flow to wild relatives, the potential for the plant to become a plant pest, the potential impact of the plant or its gene products on non-target species (including humans), and the potential impact on biodiversity (CFIA, 2005).

The government of Québec offers a website explaining what genetically modified organisms are. The website is only in French, but there is a uniform understanding of what constitutes genetically modified foods between the Québec and Canadian governments as Québec's description of genetically modified organisms cites the Canadian Federal Government. There is no official symbol for genetically modified foods nor are they typically labeled.

Conclusion

A multitude of labels are applied by producers to food packaging in an effort to enhance consumer appeal. Words such as *natural*, *open concept*, *green*, *safe*, *whole*, *plant-derived*, and many more may be used to entice people to purchase certain foods. However, unless the label is regulated by the Canadian government, it may simply be a form of advertising.

The Canadian General Standards Board website offers a search feature to look for standards. When this research was initially conducted in March 2007, the standards themselves were often untitled, making locating specific resources very difficult. Also, it was complicated to view the standards without paying a fee. To get around this, knowledge of the exact link for the document was typically required. Even this did not necessarily work as some of the links were behind secure login protocols.

Service Canada, a directory assistance organization run by the federal government, was able to provide limited information which often led to websites that were either no longer in existence, or were inaccessible without a password. Searching on the Google Canada Internet search engine located several definitions of *free range*, yet they tended not to reference the government standard and are therefore not necessarily representative

of Canadian regulations. In 2007, it was so difficult to gain access to the specific government standards it became necessary to contact CFIA and CGSB by telephone. The documents attained did explain the standards, but due to the challenge of finding them it is unlikely that the general public was well informed of these regulations a year ago.

In March 2008, the regulations governing organic, free range, fair trade, and genetically modified foods were revisited to insure that the thesis was still current. Further complicating the process of accurately delineating the most recent standards for organic is that the Québec standard was changed significantly in January 1, 2008, making previous research obsolete. The Canadian Federal standard for organic foods is presently undergoing an overhaul, which will be complete at the end of the year. Therefore the 2006 federal standard, which is the most recent one published, and the 2008 Québec organic standards were analyzed. Québec provincial regulation of organic is very detailed. It is similar to the voluntary standard for organic presently in place at the federal level. However, in Québec, the standard is more explicit in articulating exactly what is and is not organic. The Québec standard also uses more vernacular language than does its federal counterpart.

The regulations governing free range products are vague enough to be open to interpretation by corporations. Fair trade regulations, by comparison, are clearly regulated. Presently, TransFair's main website provides a link to a detailed report on the criteria for fair trade certification which explains exactly how organizations get certified and the system of checks in place to protect against abuse of the label. In March 2007, this information was available, but it was difficult to access, and required contacting TransFair to be sent the information.

Food labeling in Québec is regulated through a combination of federal and provincial government agencies. Several federal and provincial agencies act together to regulate Québec food labeling. The federal and provincial regulators update their components of the regulations at different times. It is quite complicated to discern which agencies take part and the extent of their roles in Québec food labeling regulations. However, over the course of the last year, it has become much easier to access the standards. Both Canadian Food Inspection Agency and its Québec counterpart have streamlined accessibility to their documentation on organic foods as a mainstream food type. Free range and fair trade food types do not receive the attention given to organic products, but overall, public access to government food regulation has vastly improved since 2007.

3.2- Analysis of Corporate Biotechnology Information

Corporate websites provide a wealth of information pertaining to food labeling and regulatory issues. In the first part of this section, the claims made by the biotechnology industry website are summarized. The tools of textual analysis discussed in Chapter 2 are then implemented. The claims of the biotechnology industry are also assessed for their accuracy from the perspective of government regulators and scholarly non-governmental organizations.

The Council for Biotechnology Information (CBI) is archetypal of the projected industry view of this technology. The CBI website is analyzed to evaluate how the North American biotechnology industry markets GMO technology to the public. The website is run by the most influential chemical, pharmaceutical, and biotechnology firms on the continent. For example, the Canadian arm of the coalition includes “BAS, Bayer

CropScience, Dow AgroSciences, DuPont, Monsanto and Syngenta, and two trade associations, BIOTECCanada and CropLife Canada” (CBI, 2008a).

3.21- Summary of Biotechnology Industry Claims

The website of the Council for Biotechnology Information is intended as a resource for the general public, educators, and the media. The main webpage features a directory titled “Plant Biotechnology and You.” It has clickable links for its targeted audiences: journalists, consumers, farmers, teachers, and students. The website also offers a *Frequently Asked Questions* section. Website viewers are directed to select their affiliation from this list of links.

Each of the directory links leads to an article for the target audience. After commonalities have been articulated along the lines of presentation and theme, these affiliations will be discussed separately. The articles are clear, dramatic, and written in the vernacular. Though the articles are aimed at different groups, the message is the same throughout. They commence by declaring claimed benefits of biotechnology such as high yield, improved living conditions for farmers, that the technology is internationally recognized and employed, environmental sustainability, diminishing emissions of greenhouse gases, and bio-fuel innovation (CBI, 2008b).

Each of the articles focuses on one or more of the claimed benefits. These claims are iterated several times and each claim is tied to a moral obligation such as helping to alleviate malnutrition. In addition to tying biotechnology to morality, the central message, repeated several times in different ways, is that government regulatory interference in corporate innovation is amoral and frustrates progress. In the selection of information provided, there is no reference to potential risks of the technology.

The first link is for journalists. It directs the viewer to an article claiming benefits of biotechnology such as increased yield, better standards of living for farmers, that the technology is internationally embraced, that it is sustainable agriculture, that it helps to reduce greenhouse gases, and that it aids in the development of bio-fuels (CBI, 2008b). Several of the claims on this portion of the website are dramatic, such as: “Finally, countries like India recognize the importance of using biotechnology to make the country self sufficient” (CBI, 2008b). Another claim cites a farmer who says as a “widowed mother of 3 children... with the added income [from GM crops], I have been able to send all my children to college” (CBI, 2008b).

After making these claims, the CBI argues that delays in receiving regulatory approval for biotech crops “with benefits for millions is a moral dilemma” in which regulatory systems impede on progress (CBI, 2008c). This emphasis on a moral obligation to propagate GM crops and to reduce role of governmental regulatory action continues throughout the journalists’ information section and also in the other sections of the website.

The consumer link for biotechnology information ties GM products to a moral obligation asserting this technology must get past regulatory barriers to “reduce the malnutrition problem” (CBI, 2008c). The CBI prescribes a private sector solution to malnutrition in the Protato which is a potato “enhanced with a gene from the Amaranth plant” to have higher levels of protein and better shelf life than existing potatoes (CBI, 2008c). The article stresses the persistence of benevolent research on the part of the biotechnology industry to reduce child mortality, improve water quality for children, and provide “better food and vaccines” through its contributions to innovation in India (CBI,

2008c). It stresses private sector innovation and de-regulation as the best way to provide affordable food.

Having claimed ethically-conscious consumers must embrace GM foods, the CBI seeks to convince farmers of further benefits. The link aimed at farmers perusing the CBI emphasizes higher yield, lower cost, easier production, and the ability to “steward the environment and have more time to spend with their families” (CBI, 2008d). Biotech crops are linked to wholesome family life. If farmers grow these crops, CBI argues it will improve “quality of life by giving them time to attend their kids’ Little League baseball games and other activities” (CBI, 2008d). The website provides no evidence of peer-reviewed documentation to support these claims.

The portion of the CBI website aimed at students and teachers focuses on a downloadable PowerPoint presentation on the virtues and the necessity of biotechnology. The position of the presentation is that there is “no conceptual distinction” between organisms which are genetically modified at the molecular level through recombinant DNA technologies, and organisms which have been modified through traditional selective breeding techniques (CBI, 2008e). Additionally, the presentation for students and teachers reiterates the benefits expressed for each of the other demographic categories.

The Frequently Asked Questions section of the website provides a list of issues discussed in the articles, through a question and answer format. The FAQs serve to affirm and summarize the information portrayed in the articles. Higher seasonal yields and resistance to pests are well established benefits of food biotechnology (Desalle & Yudell, 2005, 146). However, the CBI argument tying private sector biotechnology to morality, environmental stewardship, and farmer satisfaction will be evaluated through textual

analysis. The analysis will consider the quality of information put forth and its accessibility to consumers in comparison with government regulatory literature.

3.22- Analysis of CBI Claims

As the Council for Biotechnology Information website shows, genetically modified foods were popularized as being aesthetically pleasing and as being heartier, lasting longer, and looking riper than traditional food sources (CBI, 2007). Yet the industry does not advocate labeling of GM foods. The government of Canada stipulates no mandatory labeling requirement for genetically modified foods, unless such food products are considered significantly different from their non-GM varieties, or if they pose known health risks (Health Canada, 2005).

Public understanding of health risks of genetically modified foods is analyzed by the Pew Initiative on Food and Biotechnology. Though genetically modified foods had been mass-marketed in North America for about a decade (PG Economics Ltd, 2006), in 2003, respondents in a Pew Initiative study were mostly unaware of the existence of GM foods (Pew Initiative, 2003). Respondents saw government regulation as being essential to securing food safety (Pew Initiative, 2003). Once the meaning of genetic modification had been explained to respondents, they were asked about their perceptions of the technology. The definition of genetic modification provided by the Pew Institute is equivalent to that elucidated in Chapter 3.1 of this thesis. A majority of the respondents were neutral or in favour of the idea of plant to plant hybrids, though there was vehement opposition to forms of biotechnology involving genetic recombination of bacteria and animals (Pew Initiative, 2003). The American public as represented in the Pew Initiative

research study was wary of biotechnology as it posed new types of risk to the safety of the food supply (Pew Initiative, 2003).

The biotechnology industry does not support the perception of GM foods as a new risk. It insists that genetic modification is only a production technique and it does not change the end product (CBI, 2007). CBI opposes labeling of GM foods, commenting that such legislation would lead to a crisis of consumer confusion as to the make-up of foods that “only a food scientist possibly could unravel” (CBI, 2007). Scholars such as Lawrence Busch posit that biotechnology corporations categorically dismiss claims of risk made by sociologists and members of the public as being uninformed and irrelevant (Busch, 2005, 1). The stance of the biotechnology industry espouses trust in science and argues that to have a credible position one must be a scientific expert (Busch, 2005, 1).

The position of the biotechnology industry rejecting risk claims by people who are not in the industry is seen as short-sighted by the Consumers’ Association of Canada (Leiss, 2003, 4). Many of the contributors to this organization also hold faculty positions at Canadian universities. The Consumers Association of Canada (CAC) examines food regulations and industry responsibility. The CAC is against the genetic modification of foods, stating that “consumers are asked to acquiesce in the creation of additional risks for no additional benefit” (Leiss, 2003, 4). The biotechnology industry claimed its products were significantly reducing world hunger, however, Genome Canada rejects the assertion that private sector biotechnology interests alleviate hunger to the degree claimed (Genome Canada, 2005, 2). CAC also comments that the industry puts effort into reducing public awareness of risks rather than reducing *actual* risks (Leiss, 2003, 4).

The instance of industry attempting to reduce public perceptions of risk is evident throughout the CBI website. The CBI describes GM foods as safe, natural, and enhanced

over the original version (CBI, 2007). The biotechnology industry views the Earth as a set of resources which may be chemically substituted to mechanically maximize yield and benefit through technology (CBI, 2007). However, the Allergy and Asthma Information Association (AAIA) argues there are a number of potential risks of biotechnology (AAIA, 2002). A significant and potentially life-threatening risk of unlabeled GM foods exists for people who have food allergies (AAIA, 2002). The AAIA estimates that 30 percent of the Canadian population has allergies, about 1-2 percent of which are life threatening (AAIA, 2002). This organization is strongly in favor of “mandatory labeling of all foods, including imports” and they assert that genetic modification of foods has the potential to be very dangerous (AAIA, 2002).

The vast majority of food allergies originate from only a few foods. These are “milk, eggs, wheat, fish, nuts, soybeans, and shellfish, [therefore] scientists must take care not to incorporate the known allergenic protein into a new food source” (Desalle & Yudell, 2005, 157). Food allergies are typically to proteins (AAIA, 2002). If a foreign protein is used in the genetic modification of food, it could pose serious health risks for anyone with severe allergies to that food, especially if it were nuts or fish (AAIA, 2002).

CBI does not address the concerns of the AAIA. Rather, it focuses only on asserting that there are many benefits of new advances in biotechnology while consistently informing the consumer that the technology is safe and built on traditional cultivation techniques. The Council for Biotechnology Information states that consumers in many countries embrace food biotechnology (CBI, 2007). However the organization does not mention that European consumers and policy makers have aggressively campaigned against GM food over concerns of perceived and unknown risks to public health and food security (Falkner, 2007, 99).

According to the CBI website, “all of these [GM] crops provide agronomic (agricultural) benefits, which is why farmers have embraced this new technology” (CBI, 2007). However, the assertion that farmers are generally in favor of GMOs is not supported by scholarly literature (Mehta, 2002, 4). A research organization studying farmer and public perceptions of GM foods is *Genome Canada*, an agency of the Federal Government. A branch of this organization, called GE³LS, examines the “genetic, ethical, environmental, economic, legal, and social” aspects of biotechnology (Genome Canada, 2005, 2). Genome Canada comments that the benefits of biotechnology are not for the farmers or people, but for private corporations such as the constituents of the CBI (Genome Canada, 2005, 2).

Claims of environmental sustainability and stewardship are numerous on the CBI webpages. However, biotech crops are fundamentally unsustainable because the industry engineers seeds to be able to generate only one crop in order to maximize profit (Joyce & Gulick, 2005). Future resulting seeds are often sterile or have little yield (Joyce & Gulick, 2005). Furthermore, farmers aren’t allowed to save their seeds, as they typically have to sign contracts with biotechnology companies that license the seeds to the farmer for only one season (Joyce & Gulick, 2005).

An organization taking issue with seed licensing contracts is the Center for Food Safety (CFS). It is an American, non-governmental organization comprised of lawyers, scholars, food producers, and others (CFS, 2007b). The CFS disagrees with the CBI about farmers’ approval of biotechnology (CFS, 2007a). It contends that there is much dissatisfaction amongst farmers and rural communities with the biotechnology industry in a publication titled “Monsanto vs. U. S. Farmers” (CFS, 2005, 1). In summary, the report argues that Monsanto’s policies of locking farmers into crop contracts and of suing or

intimidating farmers who grow Monsanto brand crops outside of contractual terms is widespread (CFS, 2005, 4). For example, the CFS claims Monsanto “has an annual budget of \$10 million dollars and a staff of 75 devoted solely to investigating and prosecuting farmers” (CFS, 2005, 4). Coupled with this is a pattern of escalating distrust among farmers trying to get rid of those who use patented seeds outside the contractual obligations set by Monsanto and other biotechnology companies (Mehta, 2002, 4). Mehta contends this “surveillance” causes rural communities to be “low in trust and probably less stable and socially cohesive” (Mehta, 2002, 4).

In addition to the frustrations farmers have with contracts for GM crops, the Canadian government has a contractual obligation to the North American Free Trade Agreement (NAFTA). This trade agreement reduces governmental sovereignty on the regulation of genetically modified foods. The Canadian Biotechnology Advisory Committee (CBAC) advises the Federal Government of Canada on issues relating to genetic modification of foods (CBAC, 2007). CBAC notes that the regulation of biotechnology is frustrated by NAFTA, continuing that if labeling were to become mandatory, it would violate NAFTA and could cause levying of economic sanctions against Canada by its trade partners (CBAC, 2005).

The claims made on the CBI website use theatrical examples to articulate benefits of GM technology. The CBI argues corporate biotech innovation is practical, ethical and safe (CBI, 2007). However, analysis of CBI claims through the lens of the referenced government and non-governmental scholarly organizations has shown that the Council for Biotechnology Information overstates the benefits of GM technologies while devaluing risks and other information not conducive to the goals of the industry.

Having established and analyzed the position of the North American biotechnology industry, the marketing strategies of the most significant grocery retailers in Québec will be studied in the next section of this thesis. Textual analysis of these marketing strategies will examine how the grocery industry in the province of Québec markets organic, free range, fair trade, and genetically modified foods to the public.

3.3- Marketing Strategy Case Studies of Loblaws, IGA, & Metro

As the literature in Chapter One illustrates, labels and packaging information are highly influential in consumer understanding of products (for e.g.: Woodburn & VanDeRiet, 1985, 9; Thomsen, Dale, & Amos, 1988, 215; Davies & Wright, 1994, 57; Van den Wijngaart, 2002, S68). In addition to serving as a source of product information, labels are often used by marketers attempting to produce consumer affinity with certain products by tying them to lifestyle and identity (for e.g.: Brook, 2008, 144; Nissley, Taylor, & Houden, 2004, 827; Duncum, 2007, 286; Lindenmeyer, 2006, 469; Stuart, Schröder, Hughes & Bower, 2004, 135; Sharpe, 2003 *ii*; Mintz, 2002, 27; Warde, 1997, 180; Jordan, 2007, 26; Moisio, Arnould, & Price, 2004, 364; Davies & Wright, 1994, 57).

Employing the methods elucidated in Chapter 2 (page 24) this section uses textual analysis to examine food marketing strategies amongst the three largest grocery distributors in Québec; Loblaws, IGA, and Metro. Analysis is of these companies' English language, Québec region websites. It focuses on an evaluation of how these food products are tied to social identity claims. The analysis looks at linguistic conventions and phrasing used to entice consumers. It also considers the accessibility of information describing these labels and examines how applicable regulatory standards are portrayed.

In order to provide the background for textual analysis, this section also gives a detailed descriptive account of the Québec grocery market for organic, free range, fair trade, and genetically modified food types. Prior to evaluating the claims of the Québec grocery industry, the ownership of Loblaws, IGA and Metro will be traced to show both the scale of the companies in the region and elsewhere, as well as the brands and subsidiaries owned. There are a large number of grocery stores run under different names in Québec. The assets of the most influential companies are delineated to add clarity to analysis of marketing strategies. Loblaws is one of the three largest Québec grocery merchants. The following table shows the assets managed by Loblaws:

TABLE 1: Loblaws Subsidiaries	
Region	Name
Québec	Loblaws, Provigo, Maxi, Club Entrepot Provigo
Ontario	Real Canadian Superstore, Loblaw Superstore, Fortinos, Loblaws, No Frills, Valu-Mart, Independent, Zehrs, The Real Canadian Wholesale Club.
Western Canada	Real Canadian Superstore, Extra Foods, No Frills, The Real Canadian Wholesale Club.
Atlantic Canada	Atlantic Superstore, Dominion, The Real Canadian Wholesale Club.
Affiliates	President's Choice Brand, George Weston Limited, Shop Easy Foods, Red & White Foodstore, Lucky Dollar Foods, L'inter Marche, Freshmart, Axep, Super-Valu,

Discerning the ownership of IGA is considerably more complicated. Initially all of the IGA stores were run by what is now the IGA headquartered in the United States (IGA United States, 2005). The *Independent Grocers Association* (Canada) and *Independent Grocers Alliance* (United States) stores both use a red, block letter IGA logo. However, the IGAs have different owners based on region. In the Canadian provinces of Québec, Ontario, and the Prairies, the Independent Grocers Association is owned by Sobeys (IGA Canada, 2008a). Sobeys is in turn owned by a publicly traded food and real estate company called Empire Corporation (Empire, 2008).

Sobeys runs IGA Extra, IGA, Foodland and Price Chopper. Under these banners, there are 1300 stores across Canada (Sobeys, 2007). Sobeys has stores in British Colombia, but not under the IGA banner. In British Colombia, the IGA banner is owned by H.Y. Louie Corporation which was acquired by the American IGA in 2005 (IGA United States, 2005). The American IGA operates in 40 Countries, including Canada (IGA United States, 2008). The Canadian IGA stores (except for those in British Colombia) stores are not affiliated with the American IGA stores. Though the IGA logos look virtually identical, including in font and colour, they are separate entities.

Tracing the ownership of Metro was comparatively straightforward. Metro owns several stores and brands in Québec and Ontario as the following table illustrates:

TABLE 2: Metro Subsidiaries	
Region	Name
Québec	Metro, Super C, Marche Richelieu, Ami, Les 5 Saisons, Marche Extra, Dépanneur Gem, S.O.S. Dépanneur, Am-Pm, Service, Servi Express, La Relève, Brunete, Clini-Plus, Pharmacy, Merit Selection brand, Super C brand,
Ontario	Loeb, A&P, Dominion, The Barn Markets, Food Basics, Irresistible brand, Master Choice brand, Equality brand, Basics for Less brand

Both Metro and Loblaws own grocery stores named Dominion. The Metro Dominion stores operate in Ontario, and the Loblaws Dominion Stores operate in Newfoundland and Labrador. The Metro owned Dominion stores are not affiliated with the Loblaws Dominion stores (Metro, 2008a). The structures of ownership for Loblaws, IGA, and Metro are complicated. As the branding and subsidiary influences of these three companies have been established for the province of Québec, their marketing strategies will be analyzed.

Marketing strategies

The Québec grocery industry, as represented by Loblaws, IGA, and Metro, uses vernacular, strong, and direct wording to describe the food products on their websites.

The phraseology used is dramatic, clear, and repetitive. This approach follows a common strategy of “inform, persuade, remind” which is well established as being highly effective in building consumer trust (Laroche & McDougall, 2006, 302). In this strategy, the consumer is introduced to a product in a non-threatening way (Laroche & McDougall, 2006, 302). Using dramatic themes, products are then tied to symbolic meaning, and the information is repeated (Laroche & McDougall, 2006, 302-3).

Themes used to varying degrees by these companies to market organic, free range, and fair trade products are: ethics, class-status, health, environmental sustainability, and responsibility. In the cases of organic and fair trade products, the certification process is discussed and reference is made to government legislation. The industry indicates there are independent certifiers to inform consumers that the products are authentic. Another highly effective marketing technique is to tie identity claims such as “safety, economy, status, health, pleasure, or convenience” to a particular product (Laroche & McDougall, 2006, 294-5). The specific claims of each company are analyzed in the paragraphs that follow.

Organic foods

Each of the three major Québec grocery merchants markets organic foods. They use tactics tying class-status, social responsibility, environmental sustainability and health to organic product claims. Additionally, each of these corporations provides consumers with its own interpretation of what the label means and how it is regulated. Portrayals of the organic standard by these companies discuss the main points in the government legislation and comment that organic certification is well regulated, but their

interpretations of the meaning of organic also go beyond what is provided for in the legislation.

Based on keyword searches for *organic* on the websites of these three companies, Loblaws has the largest number of organic products on the market. It portrays organic food consumption as quickly increasing in popularity (Loblaws, 2008a). Loblaws asserts that organic products are, by definition, superior to other food types based on environmental sustainability, healthfulness, and ethical considerations (Loblaws, 2008a). The main Loblaws website has a major section dedicated to explaining and promoting organic foods. Loblaws markets these products as a mainstream, premium good, rather than a niche or specialty market product (Loblaws, 2008a). The marketing strategy of Loblaws for organic products is to tie consumption of this type of food to an ethical, responsible, and environmentally conscious lifestyle. The themes woven through Loblaws' discussion of organics are that they follow "strict organic standards," have no artificial chemicals, "help to protect the environment, preserve natural diversity," and involve "recycling of materials and resources" (Loblaws, 2008d).

Organic foods are noted to prohibit genetic modification (Loblaws, 2008f). In describing the meaning of organic foods, Loblaws cites the National Organic Standards Office, but omits important information such as that Québec has its own organic certification office. The definition is also insufficient since it does not discuss the regulatory difference between a product which is labeled organic and one which is certified organic (discussed on pages 45-47 of this thesis). However, Loblaws does introduce the consumer to the concept of organic certification, stating that agencies charged with this mandate follow government standards (Loblaws, 2008f). Quality

Assurance International is provided as an example of an organic certifier (Loblaws, 2008f).

Loblaws asserts that organic foods are of superior quality to the other food types since they are fresh, minimally processed, (Loblaws, 2008d), ethical, healthy, and traditional (Loblaws, 2008c). Organic products are listed under the “Healthy Living” section of the Loblaws website (Loblaws, 2008c). Organic foods are projected as making use of ethical practices such as “attentive care that promotes the health and behavioral needs of livestock” (Loblaws 2008f).

The choice of the words *traditional* for organic production, and *conventional* (Loblaws, 2008d) non-organic production methods is intriguing. This type of phrasing is reassuring of safety as the words: *traditional* and *conventional* are synonymous with well established and respected production methods. With the word *conventional*, Loblaws also avoids using the expression genetically modified. As a further selling point, Loblaws indicates it is working diligently to be able to offer organic foods at prices close to par with “conventional” food products (Loblaws, 2008d).

Above all other considerations; responsibility is attributed to organic products. Loblaws uses selective presentations of the organic standards to generate consumer loyalty. The consumer is informed that they *should* buy organic, that it is a responsible choice, especially if nursing a baby, to provide the best food available (Loblaws, 2008a). In a number of instances on its webpages, Loblaws ties organics to responsibility (Loblaws, 2008a) and after each, it assures consumers that its other products are also of good quality, just that organic is a premium product. Though the other keywords are used with the same frequency as the word *responsibility*, the linguistic pattern is structured in such a way that responsibility is the core claim, and each of the other benefit types are

used to further justify and exemplify why responsible consumers need to buy Loblaws' organic products.

The manner in which Loblaws projects the meaning of the organic designation goes beyond the criteria in the government standards. It would be conceivable that Loblaws may provide these added characteristics if it had used a certifier known for them. However, Loblaws uses Quality Assurance International (Loblaws, 2008f). The certification practices of this company follow the Canadian and Québec legislation (Québec Government, 2008g) and therefore do not fully extend to the provisions of ethics and quality portrayed by Loblaws. Additionally, the main competitors of Loblaws (IGA and Metro) also use QAI, and their projections of the standard are dissimilar from that of Loblaws.

The marketing strategy of IGA Québec for organic foods is quite different from that of Loblaws. Food purity and environmental sustainability are the principle benefits of organic foods espoused by IGA, as well as status, to a lesser extent. IGA does not share Loblaws' strategy of marketing organic as a superior mainstream product. IGA focuses on organics as being of very high quality, but it appears IGA considers organic foods to be a firmly in the context of niche marketing. As such, organic information and products are more limited than on the Loblaws website. For example, in a keyword search on the websites of Loblaws and IGA, the latter has only 27% of the number of references to organic as the former. Also, ethics which was a central component in the strategy of Loblaws was not as significant in IGA's portrayal of organic foods. The cost of purchasing this food type is another point of divergence in strategy, as it is not mentioned.

The marketing tool of repetition is focused on the certification process for IGA. Through several permutations of the message that organic foods are “certified to the highest standards” (IGA Canada, 2008c), IGA seeks to assure consumers of the quality of its line of organic products. Referring to a product as being produced with exclusive standards is also a way of claiming elite status may be attained for consumers of the product (Miller, 2001, 137).

IGA describes organic foods as containing “no synthetic pesticides, no seeds from GMOs (genetically modified organisms), no artificial colorants, flavors, or additives” (IGA Canada, 2008b). The website also notes that labels such as “*fair trade*, no *GMOs*, *appellation of origin*, or *homemade*” are not necessarily organic (IGA Canada, 2008b). IGA portrays organic food as having gone through a “very strict,” government controlled certification process (IGA Canada, 2008b). As an example of the stringent character of government organic regulation, IGA notes that foods labeled with synonyms of the word organic, (such as *ecological*, *biologique*, or *biodynamic*) must meet the criteria for organic certification. IGA lists its organic certifiers as Garantie Bio, Eco Cert, Biologique Certifie, OCIA, IFOAM Accredited, Québec Vrai, and Quality Assurance International.

In comparison with the Canadian and Québec organic standards and certification, the IGA website summarizes most of the main points. However, there are areas of this summary which are quite vague, perhaps as it allows greater latitude for claiming specific attributions. An example of ambiguity in the discussion of organic food production is that it uses “methods which are sustainable and harmonious with the environment” (IGA Canada, 2008a). In terms of health, IGA makes no specific claims for organics, but the information provided is accessed through the “health tips” section of its website (IGA, Canada 2008b).

Metro's Québec marketing strategy for organic foods diverges from the other two merchants and the company only operates in two Canadian provinces. Yet it is still a competitor for the organic grocery business in Québec. Metro claims to have studied consumer rationalities for buying organic and determined the most significant ones are: "dietary and health safety, protection of the environment, and the taste" (Metro 2008b). Metro's strategy invokes environmental benefits of organic products. However, unlike the other two merchants, Metro advises consumers that the benefits of organic foods are sometimes overstated (Metro, 2008b). In an apparent effort to appear objective and credible, Metro cautions consumers that though lower in pesticides than non-organic foods, academic studies do not decisively prove organic foods to be healthier (Metro 2008b).

Metro does not refer to organic food pricing. Both IGA and Loblaws overtly discuss organics in the context of lifestyle and status, though Metro does list its organic information under the "art of living" section of the website, it uses more nuanced phrasing to inculcate potential consumers of organic products. Metro summarizes the organic standard as meaning such foods are "free from all pesticides, chemical fertilizers, genetically modified organisms, antibiotics, and growth hormones," and that livestock was fed vegetarian meals (Metro 2008c). Organic, ecological, or biodynamic names are strictly regulated with respect to the certification (Metro 2008c). Additionally, Metro claims organic products use "methods that respect both the animals and the conditions in which they are raised" (Metro 2008c). Through this discussion, Metro asserts organic foods are better for the environment and more ethical than other food types (Metro 2008b).

Rather than commenting that the organic standard was "strict" as in the case of Loblaws or of the "highest standards" in the case of IGA, Metro choose to summarize the

main points of the Québec standard, and then also point out areas of weakness in the legislation. Of the three, Metro's portrait of organic is the only one which delineates loopholes in the standard for consumers. Metro warns: "beware of so-called organic products that don't display any of the six certified organic labels authorized in Québec (Metro, 2008c). The organic certifiers, Metro continues, are: Garantie Bio, Eco Cert, Biologique Certifie OCIA, IFOAM Accredited, Québec Vrai, Quality Assurance International. Metro cautions consumers that organic products may still be contaminated from ground or air due to environmental factors external to the organic certification process (Metro 2008b). These are additional examples of Metro's apparent strategy to portray itself as an objective, authoritative source of information, compared with its competitors which only mention benefits of organic foods. Metro's portrait of organic products references the main points of the Québec organic standard, but it does not mention the Canada Organic Office, which will be asserting authority over organic certification at the end of 2008.

Free range

The market and availability of free range foods is much smaller than that for organic foods. Metro does not sell any free range products. However, as mentioned in Chapter 3.1 (pages 47-8), the Canadian government offers only a vague definition of free range, with no formal standard or certification process. This allows marketers to make authenticity claims by referencing government regulation, yet gives them flexibility in their interpretations of the term *free range*.

The only free range product Loblaws and IGA sell is eggs. It is also organic, and Loblaws does not clearly distinguish between the two types. The tone Loblaws uses to

articulate free range discussion is enthusiastic, linking ethics, happiness, and quality to free range products. For free range eggs, Loblaws claims hens are treated ethically and therefore enjoy a high standard of living (Loblaws, 2008b). This takes place in an “open concept, weather-sheltered barn environment, where they are free to roam, feed, roost, nest and perch” (Loblaws 2008b). Loblaws continues that tasty, happy eggs are “from uncaged hens” (Loblaws 2008b). This strategy mixes ethics claims with emotional words such as “happy” in an attempt to access consumer sentiment.

The free range product line at IGA is also limited to eggs, and IGA also does not define free range separately from organic. In the product description of IGA free range eggs, the consumer is instructed that the product is free of “antibiotics, preservatives or medications in the feed” (IGA Canada, 2008c). This is problematic as it implies that the definition of free range includes a ban on antibiotics, preservatives and medications, which is not presently legislated.

The information for organic products was prominently accessible from the main websites of these companies. With free range products, information is available, but only in the description of specific products, and not at all from Metro. The minimal amount of free range information and products makes it a specialized niche.

Fair trade

References to this food type are absent from the websites of Metro and IGA, though Metro has registered itself as a fair trade distributor for coffee (Transfair, 2008b). Loblaws sells fair trade products and has a webpage which briefly explains what constitutes this designation and why consumers should take notice. The information on the Loblaws website for fair trade products is limited to only one page of text in two

paragraphs, in comparison with several pages discussing organic products. Through different linguistic permutations, Loblaws reiterates an ethical and environmental benefit from the consumption of fair trade products (Loblaws, 2008e).

The niche of fair trade products at Loblaws is increasing in size, yet it is predominantly limited to coffee and chocolate (Loblaws, 2008e). Loblaws describes fair trade in terms of a philosophy, rather than a strict definition. This philosophy is centered on assuring that producers are party to “fair compensation for their products and labour, sustainable environmental practices, improved social services, investment in local economic infrastructure” (Loblaws 2008e). Loblaws continues that assurance of the fair trade designation is made through a “system of monitoring, auditing and certification” (Loblaws 2008e) although no certifier is named. However, this information is congruent with the principles of fair trade certification (Transfair, 2008a). Loblaws does not provide specific information on what constitutes fair compensation or which environmental practices are used.

On first glance it appears puzzling why Loblaws and IGA would invest in free range products which imply ethical treatment of animals and environmental stewardship, and not further capitalize on the market of ethically minded consumers by expanding the fair trade market. However, it is very straightforward to market products as free range in Canada because the regulation is much weaker than for organic or fair trade products. With attentive marketing strategies, free range products may be marketed as being ethical, providing a high standard of living for livestock, such as the ability to roam outside. However, since there is no specific free range legislation or certification body in Canada, at present, corporations do not need to prove their free range claims. As fair trade

products are stringently regulated both in Canada and internationally, it would be much more costly for businesses to expand their stock of fair trade items.

Genetically modified foods

Loblaws, IGA, and Metro's marketing strategies for genetically modified foods are decidedly different than their tactics for the other food types. Except in notation as being excluded from organic products, there is no discussion or advertisement of GM foods. Yet, it is virtually certain that each of these companies sells a wide variety of GM food products, as the biotechnology industry in Canada claims that more than 70% of "processed foods on grocery store shelves" have ingredients which are the result of genetic modification (CBI 2008f). The decision by the Québec grocery industry not to publicize GM foods is pondered in the conclusion to this chapter.

3.4- Chapter Conclusion

This chapter has examined the regulation of organic, free range, fair trade, and genetically modified foods in Canada. The promotional tactics of the biotechnology industry for GM foods were then evaluated. Following this was an assessment of the marketing strategies of the Québec grocery industry for these four food types. Consideration of these three sections necessitates revisiting the theoretical discussion in the first chapter.

The discussion of risk society in Chapter One should be considered as part of a complex risk negotiation strategy in the food industry. The Council for Biotechnology Information and the Québec grocery industry have very different projections of the role of government in assuring food safety. The North American biotechnology industry, as represented by the CBI, has structured its website around two principles: that their

technology is safe (CBI, 2008e), and that government regulation is an impediment to progress and morality (CBI 2008c). Yet, the strategy of proving quality and safety of foods by noting that they are certified by third parties overseen by the government shows the Québec grocery industry perceives public trust to lie in government safeguards. The CBI website is easily navigable and in the vernacular. Reiterated many times throughout the CBI website is the position that the public should trust the industry scientists (CBI, 2007).

The Québec grocery industry also seeks the public's trust and the issue of risk is very carefully handled. Organic foods are projected as being safe, traditional, and well regulated. Discussion of free range foods focuses on principles of ethics and environmental sustainability. On fair trade foods, the grocery industry notes they are independently regulated. The Canadian regulation of fair trade products is overseen by the federal and Québec governments, and is administered by Transfair. Similarly stringent free range legislation would be required to standardize the label and reduce deceptive marketing techniques.

The grocery industry does not overtly promote or even discuss GM foods. It asserts government regulations are consumers' best assurance of food safety and authenticity. Techniques of agricultural production which include genetic modification are referred to as *conventional* or *modern* (Loblaws, 2008d). Though the CBI considers GM products to be superior to other food types, it does not act as or enlist a certification body to authenticate the quality of GM foods. The claim "certified GM" is not advocated as a strategy, and the CBI is strongly opposed to labeling GM foods (CBI, 2007).

Although each of the grocery merchants studied state government regulation authenticates organic food quality, none of these corporations offer information on how

the public may access government standards for themselves. Instead, these companies provide the public with vernacular summaries of the regulations on their own websites. However, the interpretations of the government standards are neither uniform, nor fully accurate. If government food regulations were more easily accessible, especially in the form of vernacular summaries, the public would be better prepared to separate marketing slogans from authentic properties of foods.

The issues brought forth in this chapter will be will be pondered at greater depth through semi-structured interviews in the next chapter. Interviews will explore implications of food regulation and marketing with respondents who are experts in the fields of philosophy, natural science, and business.

Chapter Four

I conducted semi-structured interviews as a way of reflecting on the issues discussed thus far in the literature and investigated through textual analysis. These interviews sought to discern understanding of the social implications of food politics and labeling from the points of view of experts in the fields of philosophy, natural science, and business. Accordingly, these respondents shared their perceptions and understandings of organic, free range, and fair trade food products. Due to the reluctance of potential participants, the respondent pool is very small. Therefore, the results of my inquiries are not representative of a wide population: they are merely meant as an exploratory discussion which will in turn reveal directions for future research. Tabulated transcripts of the interviews are attached in Appendix III. Sections 4.1 to 4.3 chronicle the interview data. Section 4.4 provides analysis of the interviews and summates the thesis.

4.1- Philosophers

The three-member philosophy group was all male, ages 40-60. These demographic characteristics arose as a result of the randomization process for seeking potential respondents described in Chapter 2 (pages 34-5). Respondent One had no dietary restrictions; Respondent Two is a strict vegan, and the third respondent is vegetarian with the exception of fish he occasionally catches. Respondents One and Two are Atheist and Respondent Three is Unitarian. They were respectively educated in Canada; Europe and Canada; and the United States. Respondents One and Two have research expertise in the philosophy of science and technology, while the third specializes in environmental philosophy. Respondent Three also has expertise in molecular biology. Respondents' understandings of the regulatory and philosophical issues surrounding food labeling are discussed below.

On organic foods:

On the constitution of organic foods, the respondents had varying levels of knowledge. They also differed in the extent to which they associated consumption of organic foods with their social identities. Respondent One notes that the organic designation refers to the production methodology of foods, although he is unsure of specifics. For animal products he notes that there is something "different in the feed" whereas for vegetable products the "method of growing [them]" is different than standard food cultivation techniques. He does not notice a difference in taste between organic and non-organic foods. This respondent purchases organic fruit and vegetables when it is convenient. He comments that if he needs only a few food items, he shops at corner stores, which are not likely to have organic products. However, when he is at the grocery store, if he sees organic products, he will buy them.

Respondent Two has many years of research experience in food biotechnology and is aware of the Canadian organic food labeling regulations and the science that informs them. He has studied the scientific distinctions between organic and genetically modified foods. He indicated a thorough and current knowledge thereof by articulating his research interest in the science and philosophy of genetically modified foods. This respondent considers existing labeling regulations in Canada to be too lax, and that grocery corporations use misleading labels mainly as an advertising strategy, rather than to accurately explain the constitution or production method of foods. He purchases organic foods when they are available and price is not an issue. He is concerned, however, that foods labeled as organic may not meet the official standards, or that there may be cross contamination of organic foods if they are processed on the same equipment as non-organic foods.

Respondent Three has extensive and concise knowledge of organic food regulations in Canada and the United States and is an advocate of organic food consumption. It is an important part of his lifestyle which he interprets as being environmentally responsible, ethical, and healthy. He states the regulation for certified organic status involves “[prohibition of] artificial fertilizer, no pesticides, except natural pesticides such as copper sulfate, a number of different [certification] bodies: Canada Organic, Quality Assurance International, Québec Vrai, and USDA Organic.” Respondent Three also mentioned that the organic and GM categories are mutually exclusive. The principle reason he buys organic products is tied to a conviction that organic foods are better for the environment than foods using conventional production methods.

Respondent Three defended the notion that people should catch or hunt their own fish or meat since these sources of nutrition are free of many of the toxins found in commercially processed foods. When eating at a restaurant, he favors organic menu items, but will still consume non-organic foods. He claims that though present evidence organic foods are healthier than GM foods is “somewhat weak individually... it's certainly better for us collectively.” He acknowledges that organic consumption is minimally better for individual health, but he urges people to see the immense potential global benefit of a reduction in chemical pesticides. He comments:

Unfortunately though, I have the impression that a lot of people buy organic stuff primarily for the individual health reasons rather than the collective health, ecological health reason, which I think is a much better established rationale. [The] organic thing could have a connotation of justice toward nature.

According to Respondent Three, it is likely that foods labeled as *green* or *ecological* are often done so to trick and entice consumers. As an example, he mentioned

frozen organic spinach, which he had recently bought, and later realized it was imported from China. He was struck by the immense amount of fossil fuels used to transport it. He was also concerned with the recent food safety scandals in China, so he decided not to trust the organic label from that country. He was also worried about cross contamination from polluted water and poor enforcement of international food regulations.

On free range foods:

Respondent One is dedicated to buying free range products, especially eggs. He understands free range to mean that “the chickens are not in cages but are allowed to roam freely.” He articulates this is more humane than traditional methods of production which use “very small cages” and are highly “problematic from an ethical standpoint.” He posits the consumer has a “moral obligation” to avoid consumption of foods which are produced unethically. Respondent One is unable to perceive differences in taste or quality between free range and industrial eggs, though he postulates there may be long term health affects of consuming animal products from high-stress modes of production, such as in the case of animals confined to tiny cages. He advocates further study of this issue in academic longitudinal research. Respondent One recommends reading work by Peter Singer on his philosophy of ethics, specifically that discussing “moral obligations with respect to non-humans.” Singer’s work is discussed in the first chapter on pages 8-9.

Respondent Two is also concerned with ethical eating, but he extends this to mean a vegan lifestyle. He has been vegan for many years and is not familiar with the term *free range*. The concept of free range is also not succinctly understood by Respondent Three. He remarks: “I know less about free range... the animals aren’t confined in nearly as small a space as so-called conventional” methods of production. He has found free range

meat, but not free range dairy products. Respondent Three cautions that often products which are organic are also free range or fair trade, but there are important distinctions between them. On ethics, he notes all animal products, even those which are free range, are intensely stressful to the environment. He advocates vegetarianism as it “reduces ecological footprint, reduces strain on global food supply, and is very healthy.”

On fair trade foods:

Respondent One is aware of fair trade products but was uncertain of the regulatory criteria, though he expects producers are “treated in fair and equitable ways.” He posits consumers have a “moral obligation” to avoid consumption of foods which are unethically produced. Respondent Two has heard of the fair trade label “but... never bothered to inquire” as to its meaning. He expressed interest in researching fair trade regulation in the future.

Respondent Three was “not familiar with the certification,” but thinks it is “a way to give people who produce any given item a fairer wage so that it’s less unjustly exploitative than is unfortunately the norm.” According to this respondent:

fair-trade is pretty straightforward, the US and Canada are massively impoverishing and otherwise oppressing people around the world through so-called free trade and other bogus concepts, and fair trade is a nice catchy attempt to provide alternatives to that whole paradigm.

On GM foods:

This section of the interviews pertained in part to whether genetically modified foods should be labeled. Some of the respondents were uncertain as to what constituted genetic modification of foods. Therefore, in advance of the labeling question, I provided

them with the definition of genetically modified foods used by the Government of Canada. Respondents based their positionality upon this definition which states:

The term *genetically modified*, is applied only to products that have been genetically engineered; that is, where genetic material (deoxyribonucleic acid or DNA) has been manipulated or where genes from one organism (animal, plant species or microorganism) have been transferred to the genetic material of another (CGSB, 2002).

Respondent One did not know there were GM foods in existence. However, when informed of the meaning of GM foods, his position was that they should definitely be labeled, stating: “the more labeling the better,” and a that there is a clear need to protect consumer safety. He continued that the consumer has the “right to know what they are consuming.” However, he also expressed concern that even if GM foods were to be labeled, the general public would likely be unaware of what this means. In his opinion, most people do not tend to read food labels. He posits that even those who do read the labels may still have difficulty with grasping technical information and separating it from advertising. He concludes the government should impose mandatory labeling of GM foods and mandate that labels have stricter standards for advertising on food packaging.

Respondent Two has research and teaching experience with scientific and philosophical issues pertaining to GM. He stresses a need for better public education concerning food labels, and more stringent regulations. He comments that the population should force the government to implement strict labeling and food safety regulations as corporations cannot effectively regulate themselves.

On GM foods, Respondent Three comments: “they are ubiquitous in our supermarkets.” He remarks genetic modification constitutes “a laboratory modification of the genes of an organism... for millennia we have been breeding different groups,” but

GMOs are not bred. Respondent Three continues that GM crops are “blanketed in pesticides,” and they absolutely should be labeled. He articulates:

The real issue is about power... Pennsylvania has passed a law banning labeling of food as hormone free, and one or two other kinds or categories because if you label one food as hormone free, you are kind of implying that it better than hormone-full. That is an example of the naked abuse of corporate power... the real issue is about whether people have a right to choose what they buy.

According to Respondent Three, banning labeling even violates the neo-liberal conception of the free market, as intervention takes away the ability for the consumer to make an informed, free choice.

4.2- Scientists

In the scientist group, three interviews were conducted. Unfortunately, one of the tapes was corrupted, and the recording rendered unintelligible. An additional respondent was sought, but no further interviews were realized due to the very busy schedules of potential respondents. The demographic characteristics of the remainder of the scientist group consisted of one female (Respondent 4) and one male (Respondent 5), ages 40-50. Both of these respondents have dietary restrictions. Respondent Four is agnostic, and Respondent Five indicated no religious affiliation. They were educated in Canada and their research expertise centers on agricultural technologies and plant molecular biology, respectively.

On organic foods:

Respondent Four understood organic foods as prohibiting or minimizing the use of pesticide, though she was not sure of the regulations. She asserts organic is neither safer nor healthier than GM food. Respondent Four said, “I look for whatever tastes better...

sometimes organic tastes better than the other... the reason I don't buy organic [except cereals and cookies] is I'm suspicious of the certification process."

Respondent Five describes organic certification as being voluntary, and notes it is:

certainly not through government agencies. Organic is a lifestyle... It's a back to nature approach where you treat the soil less drastically than do factory farmers, you try to use... natural insecticide as opposed to chemically synthesized insecticides, you pull the weeds by hand... I think people's lives are so hectic and they're so stressed and everyone's so busy, that its nice to imagine that there's a few chickens running around in a field somewhere and that this farmer is out picking the bugs off the potato plants one at a time.

Respondent Five speculates that "if people have disposable income," they will opt for food which they perceive to be of better quality because it's more costly. He indicates this phenomenon is similar to people assuming a five-dollar cup of coffee at Starbucks must be "far superior to a one-dollar coffee" elsewhere.

On free range foods:

Respondent Four understood the label to mean better treatment of livestock where "the chicken has more room to roam around." Free range animals, she comments, have access to fields rather than being in cages. This said, she does not buy free range products as she finds other types taste better. Respondent Five comments: "the free range label, I see that conceptually as in what it doesn't mean, and it doesn't mean factory farms, it means that the chickens, which are the classic example, that they get actually to move around, rather than being kept in a one by one square [foot] cage just to get fat... I suspect that there's no [regulatory] labeling body for free range."

On fair trade foods:

Respondent Four observes that fair trade “hasn’t been marketed that well.” She has no specific knowledge of fair trade regulation, but will sometimes buy it if there is a choice. Of fair trade products, she is only able to find “coffee or chocolate” and is “very fussy about the flavor, not all of [fair trade products] are that good [which is] very unfortunate.” She expects once the fair trade market begins to expand, the quality will get much better. Respondent Five understands fair trade to mean it is “encouraging people to get paid exactly what the product is worth, so if it would cost 15 dollars to generate a pound of coffee in Canada, the farmer doing that in Costa Rica should get 15 dollars rather than the 15 cents that would be the typical wage of a Costa Rican farmer.” Respondent Five expects fair trade foods are not regulated in Canada.

On GM foods:

Respondent Four's research expertise focuses on the science of biotechnology.

She articulates GM foods as being produced such that:

specifically the piece of gene... is used in recombinant technology rather than traditional breeding. Although I did notice that lately they are changing the terminology in the textbooks, that they're talking about the breeding, the classical breeding of the biotechnology as well, so that they were trying to make it feel more comfortable... I noticed in the textbook, in this 202 [course] that they would call the classical breeding as a so-called biotechnology which was not my understanding initially, but then it *is* the same thing. I mean it's a different process, but it's similar.

She continues that this mode of propagation is assisted by humans “mingling with the genetics.” Genetic modification involves a gene being taken out of one entity, cloned, and then added to the DNA of another organism (Respondent Four). Genetic modification “could be from plant to plant, it could be bacteria to plant.” From her knowledge of scientific scholarly literature, Respondent Four estimates 80% of canola

in Canadian grocery stores is GM, and that it is “impossible to find canola oil that is not genetically modified.” She notes about 70% of soy, tomato and other staple crop products are genetically modified in Canada.

The issue of GM food labeling is of interest to this professor, and she uses it as a discussion topic in her classes. She suggests mandatory labeling of all GM foods would cause unnecessary consumer confusion. Her position is that the “extent of the labeling” is the actual issue. She dismisses the concept of a labeling “distinction between genetically modified and regular” methods of production, favoring instead “a [labeling] distinction between different types of modifications because some of the modifications can be more harmful than the others.” She contends labeling should be done only in the list of ingredients, because it is no more than a mode of production. By this she means that the packaging would not have to caution the consumer of GM content further than to mention ingredients as having been genetically modified. Respondent Four articulates that the GM “process itself I have no problem with” because these products are tested before going onto the market. She continues that “if there was some bad data on the particular trait, then you can take it out.”

Respondent Five is also an expert in the field of biotechnology. He notes that:

genetically modified food, in the broader sense, is any species that has been modified by having its genome altered. The concern that most people have is that some of the genes that have been introduced, have been introduced by recombinant DNA technology... [this] means that those genes are not normally found in that organism and in some cases are not even normally found in that genome or species, so bacteria is introduced into plant species, or animal genes moving to different animal species... to me, genetically modified means just that the genome has been altered, but I think in most people, genetic modification probably means the transfer of DNA.

Respondent Five habitually eats GM foods and does not buy organic items. He defends that there is no ideological or substantive difference between an historical tomato and a GM one: “they’re the same, DNA is DNA.” In terms of risk of GM foods, he comments, “the potential for catastrophic events is higher, but in general I don’t see it as a risky thing... I don’t think they have to be labeled at all in Canada.” He continues, “the potential for risk [exists] although it’s very small, but some crazy person somewhere could take a toxic gene from some organism and he could introduce it into a plant.” However, Respondent Five stresses it’s extremely unlikely such a crop would make it to the mass market. Aside from the potential for bio-terrorism:

I don’t see [GM] as a new problem because when somebody used historical breeding methods to breed a crop that had that had some sort of advantage in yield of production over another crop, everybody bought that. And so it went everywhere and so if that plant was more susceptible to a disease, it was everywhere, and when the disease hit, everything died, and that was classic. I mean the potato blight in Ireland, everybody was using the same kind of potato because it was the best potato... biotech, recombinant DNA technology hasn’t changed that... in science, nothing is sure, and so we’re still testing, but the laboratory is huge, and we’ve done millions of people having millions of GMOs and the data don’t suggest that that’s causing anybody any problems yet. And the other thing that a lot of people that I see in the anti-GMO movement, is that people don’t like big corporations.

Respondent Five dismisses these concerns, noting corporations would not obtain a “return on their investment” if they marketed unsafe foods.

4.3- Business Interview

The anticipated number of business professors to be interviewed for this group was three. However, after approaching those with relevant research expertise on several occasions, the number was truncated to a single interview. The issue of consent was a hurdle: there was second person interested, but he would not sign the consent form. The

interviews serve only as a way of exploring the issues discussed in the previous chapters, which renders the number of business interviews unfortunate, but still useful as an investigative tool. Respondent 6 is a professor of business. He was educated in the United States and Europe. He is in the age bracket of 50-60 years old and has no religious preference. He is experienced with navigating food labeling issues because his spouse has dietary restrictions.

On organic foods:

Respondent Six sees organic food products as a prevalent and potentially explosive niche market. Though he is not certain of the certification process, he ponders it has to do with stricter regulation of pesticides and insecticides. He notes, “some times I buy [organic products], I don’t buy all organic food... I don’t see any difference in taste.” Respondent Six highlights a consumer preoccupation with class status in organic food consumption:

Specialty food items appeal to a very specific kind of people. I think from a marketing point of view we call that a market segment.... I’m sure there is a very specific demographic for those kind of people [organic food consumers], they tend to be young, more educated, maybe high income, and then they may have some health concerns they may have some diet concerns and so that’s why they would go for organic food. It costs more, so you have to have high income and then you have to be able to measure the benefits of using them.

He posits organic foods are consumed at a greater rate than free range and fair trade as there has been a better “information campaign” on the part of businesses. The information campaign, as he terms it, is the process by which marketers advertise products to inculcate certain social values as being embodied within these commodities.

On free range foods:

Respondent Six is unfamiliar with the term free range, stating “I haven’t come across that word, *free range* food. Does it mean cattle and animals are free in the field and they consume whatever food they find there” as opposed to the traditional factory farm of chickens in cages? He notes poultry in Québec is marketed as “grain fed” which he considers to imply chickens are free to roam the fields. He is unsure as to whether the free range market is going to be successful, and the meaning of the label “would have to be explained” to the consumer. He notes there is potential for the free range type, but there needs to be more aggressive marketing to link the product to desirable lifestyle traits such as ethics and morality.

On fair trade foods:

Respondent Six regularly sees fair trade products in stores though he thinks “it’s fairly new” as a niche market. Although uncertain about the regulation of fair trade, he buys coffee beans of this type and postulates it will catch on as a successful market. For the fair trade market product line to expand, however, he notes companies will first have to provide better information to the consumer as to how these products are different from typical, GM or factory farmed food products.

On GM foods:

Respondent Six has general knowledge of what constitutes GM foods and how they are regulated. He comments, in “Canada, if I understand correctly, I don’t see any real concern about it, I know there is lots of concern in Europe, I think even some regulation in Europe to ban genetically modified foods, but I think in Canada, we are probably consuming it and not knowing it.” Respondent Six takes the position that labels

on food products are needed for consumer protection: “I think full disclosure should be a rule, when information is useful for the consumer, I think it should be given on the label. I think we have very good labeling regulations in Canada... information should be given [on labels] so that consumers can judge on their own.” Respondent Six’s comment that people probably consume GM foods in large quantities without awareness thereof highlights the imperative for consideration as to whether labeling should be mandated, which is pondered in the latter portion of this chapter.

4.4- Interview Analysis and Thesis Conclusion

During the interview process, intriguing sociological points and questions became visible. There are four fundamental areas of discussion which arose out of the interview process: whether GM foods are the same *thing* as their non-GM counterparts; questions of food safety; labeling and regulation issues; and how social identity is tied to food consumption. As a way of both analyzing the interview data and also of summing the thesis, these points of inquiry are pondered with reference to interlinkages between the respondent data and the foundational chapters of the thesis. These areas of discussion represent the preeminent areas of quandary in the literature and throughout the thesis. They are separated thematically, but are not mutually exclusive. The points brought forth in the literature review, those capitalized upon by marketers seeking to inculcate consumers, and the concerns of respondents are synthesized in this section.

Is a genetically modified food the same *thing* as an organic one?

The genetic modification of life is a contentious issue. Representatives of the biotechnology industry argue that there is no genuine distinction between breeding and genetic modification, except that the latter is more efficient and controlled (CBI, 2007).

Respondent Four notes that scientific literature and student textbooks have shifted in recent years to focus more positively on GM foods and to take the position that breeding and biotechnology are the same thing, just that they employ different methodological approaches. In student textbooks for introductory level chemistry and biology courses, she saw a significant rise in the effort to correlate GM with traditional breeding techniques.

The present position of the scientific textbooks used in undergraduate course work at Concordia University is that essentially genetic modification is a production methodology, not a distinct commodity (Respondent Four). The philosophers took the opposite position even though two of them were also current with the scientific literature on biotechnology. Respondent Three was the only person trained in both natural science and philosophy. He was also the most ardent disparager of GM foods.

Respondents from each of the three studied disciplines attest public fear of genetically modified foods is due to both a mistrust of large corporations and an individual philosophical discontent with the very idea of recombinant DNA technologies. This discontent, respondents suggest, is caused by a lay perception that it is potentially dangerous to subvert nature. Business and Philosophy respondents agree with the position of the Allergy and Asthma Information Association (2002), which asserts genetic modification of foods causes consumers to be faced with unnecessary risk (AAIA, 2002).

A theme that the philosophers discussed in varying degrees was whether a GM tomato was the same *thing* as one which had not been genetically modified. The fact that foods were modified in a laboratory in ways that would have been impossible with traditional breeding techniques is seen as highly problematic by philosophers. The notion that something is genetically modified causes for these philosophers enough of a

conceptual schism between the likeness of the *original* food and the GM product, to render them different *things*, such that a GM tomato is not actually a tomato, but something else which is tomato-like.

Donna Haraway (1997) notably pondered whether a GM food was the same *thing* as its non-GM version when genetically modified tomatoes were first approved for distribution in the United States in 1994. A GM tomato called the “Flavr Savr” was modified to increase its shelf life (Haraway, 1997, 56). Calgene, the biotechnology company which created this tomato, claimed the product was not transgenic as the modification did not add a new trait, but rather restricted a trait inherent in the tomato which was responsible for spoilage (Haraway, 1997, 56). However, the tomato was certainly transgenic as the genetic modification process required the integration of bacterial DNA into the tomato (Haraway, 1997, 56).

Similar to the position of the philosophy respondents that a GM tomato is not a *true* tomato, is Haraway’s observation that genetically modified organisms contravene “natural barriers, compromising species integrity” (Haraway, 1997, 60). Recombinant genetic modification deconstructs the separation between species (Haraway, 1997, 247). It transforms an entity, such as a tomato, from existing as a distinct *thing*, into malleable informatic data (Haraway, 1997, 247; Thacker, 2003, 77). Haraway continues that though Western societies have long sanctified a rigid border between culture and nature (Haraway, 1997, 60), recombinant genetic modification of life has created a position wherein “the natural and the artificial have imploded” (Haraway, 1997, 245).

The consideration that a GM tomato is not a tomato is interesting. It highlights human scientific intervention as unnatural and foreign, yet at the same time people have been making use of yield improvement techniques for millennia. Food commodities are

manipulated for maximum market value and genetic modification is marketed as just another such production technique. There was a stark difference in respondents' perceptions of the differences between genetically modified and non-genetically modified foods. This does not concern labeling regulations, but understandings of the philosophical and scientific constitution of foods. The three philosophers argued that there was something different between a genetically modified food and its non-GM *equivalent*.

Respondent One comments that organic foods are produced using methods which are different from standard cultivation techniques. This is an intriguing statement, as it implies that organic products (rather than GM) deviate from traditional methods of agricultural production. Respondent Five (scientist) asserts that organic food is marketed as having been produced in an idyllic setting. He articulates that this setting is typically marketed as a nostalgic image of a family farm with various types of crops and animals, which was peaceful and allowed livestock to roam freely. In this portrait, the farmer would dutifully pick the bugs and blemishes off by hand. Respondent Five continues that though this image is something consumers take solace in imagining: it is a fantasy.

Philosophy respondents dismiss marketing information on organic products as conjecture and rhetoric. Philosophers assert that organic products are the antithesis of so-called traditional crop production methodologies, which have come to rely heavily on genetic modification for the past two decades. These philosophers contend that *traditional* is a word which conjures up notions of the heirloom family farm, as marketers use the term. However, the conventional methods of modern farming have made use of genetic modification and other bio-chemical inputs, such that modern traditions for food production are highly artificial. The essential proposition of the philosophers is that

genetic modification is not simply a benign methodological approach to enhance crop yield, but that it is an utterly different entity which is produced.

Given the level of discomfort with respect to GM products noted by philosophers, the manner in which respondent scientists approach this issue becomes of great interest. The scientists that were interviewed supported the biotechnology industry's claim that GM foods are the same *thing* as non-GM foods, though they make use of evolved production methodologies. The business interviewee also took up the position that GM is simply a method of production. Considering genetic modification as merely a production method, the Council for Biotechnology Information refers to GM foods as *genetically enhanced* (CBI 2007).

Based on an examination of the Council for Biotechnology website, the marketing strategies of the three largest Québec grocery merchants, and scientist respondents' synopses of current scientific literature, there is a concentrated push for scholars and consumers to perceive recombinant genetic modification and historical breeding techniques as essentially equivalent from an ontological perspective. By arguing that genetic modification is a methodical issue and not a transformation of the entity itself, it functions to attempt to conflate the philosophers' distinction between something which is grown using the assistance of recombinant DNA technology and the progeny resultant from breeding.

Philosophy respondents spoke of a clear distinction between the natural and the unnatural, which biotechnology combined. This criticism assumes that there is a "natural" to which food products could be reverted. It has become apparent that whether a GM tomato is the same *thing* as a non-GM tomato is dependent upon one's socio-cultural and educational position. Philosopher respondents disagreed with the scientists

and the business professor over what constitutes ontological sameness between goods produced with different methodologies. Marketers stress GM is a process, not a differential entity. However the philosophical question of sameness is only a starting point for analysis. It is imperative to explore other issues such as the safety of GM foods, labeling issues, and the sociality of food consumption.

Food Safety Concerns

Throughout this thesis, food safety concerns have underpinned the context of GM food discussions. The principal areas of concern over GM foods are risk and complications for those with dietary restrictions. Over the course of this research, the notion of risk was rarely divorced from discussions about GM food safety. This is reminiscent of Ulrich Beck's risk society theory discussed in the first chapter. As reviewed in Chapter 1.3, risk perceptions have shaped public food safety concerns and are exacerbated by the propagation of GM foods (Beck, 2000, 213; Mythen, 2004, 163; Mehta, 2003b). Modern, globalized capitalism and contradictory opinions portrayed in the mass media have led to a risk society (Beck, 2000, 213) in which expert knowledge is called into question and uneducated opinions are given sway (Beck, 2000, 217; Douglas, 1985, 65; Douglas and Wildavsky, 1982, 49; McIntosh, 1996, 44; Mehta, 1995). Genetic modification of foods is seen by many as a needless intensification of risk (Mythen, 2004, 163; Mehta, 2003b).

The AAIA considers all instances of GM foods to carry risk (AAIA, 2002). From a food safety perspective, the Allergy and Asthma Information Association notes that unlabeled GM foods pose reckless risks to people with allergies and with GM foods, consumers must unnecessarily take on greater potential risks than with non-GM foods

(AAIA, 2002). However, the organization is particularly concerned about genetic modification of foods known to contain common allergens such as soy, nuts, and wheat (AAIA, 2002). According to Respondent Four, soy is a constituent ingredient in a vast array of food products and is trumped only by canola as the most widely distributed GM food. Hypothetically, if soy protein were to be genetically integrated into another food, which was not labeled as genetically modified, potential transfer of protein could pose a risk for consumers with soy allergies (AAIA, 2002). This event would be particularly difficult to anticipate when eating products which appear to be unprocessed such as vegetables or grains.

Science respondents postulate GM foods are seen by lay people as entities which are enhanced in some way to increase the presence of a desired genetic trait. What the public does not properly understand, according to these respondents, is that when a food is genetically modified, it does not typically mean the extent of genetic modification is limited to a food's own genes being manipulated to strengthen certain qualities or to minimize others. Rather, interspecies hybrids are created. GM foods exist at a hybrid juncture as they "cross a culturally salient line between nature and artifice" (Haraway, 1997, 56). This amalgamation could be "plant to plant, it could be bacteria to plant" (Respondent Four). Respondent Five also noted GM foods could entail animal hybridity, meaning genes or enzymes could be taken from any of plants, animals, or bacteria, and inserted into the genetic makeup of the target food, for example, a tomato. Labeling is not legally required if the principle of substantial equivalence discussed earlier is met.

Respondents Four and Five argued that if GM foods were to be suddenly labeled, and consumers made aware of the previously unlabeled instances of bacteria-plant-animal hybridity, there would be widespread consumer panic. This panic, from the position of

the plant scientists interviewed, would be ill-conceived and psychosomatic as they consider genetic modification to be strictly a benign production method. However, respondents also recognize that for the general public, the concept of crossing species barriers is potentially disconcerting. This act is highly contentious from a variety of perspectives. The issue of risk will be addressed presently and those of social and moral concerns will be pondered in the latter segments of this section. There are a number of perceived potential risks to the modification of life. The idea that living organisms may be modified with foreign proteins and not labeled is highly problematic for those subsets of the population with dietary restrictions.

The existence of GM foods increases potential risk of consuming products which are tainted or otherwise contaminated with foods which some consumers seek to avoid. For individuals with religious dietary restrictions such as the need to keep Kosher or Halal, GM foods threaten to taint their observance of respective dietary guidelines. For those who lay ethical or other social identity claims with respect to the foods they eat, such as vegetarians or vegans, following the restrictions to the letter becomes challenging. For those with a medical necessity to avoid certain foods, it is difficult to definitively eliminate trace amounts of specific foods if their diet contains unlabeled GM foods. As previously discussed, for individuals with food allergies, especially severe ones, these food concerns are potentially damaging to their health.

An additional risk of GM foods pertains to their uniformity. Respondent Five cited the potato blight in historical Ireland as a caution against using exactly the same strain of a crop seed over a massive percentage of arable land. One striking benefit of GM food products is that while any genetically uniform crop does run the risk of being decimated by blight in GM crops, the genetic trait susceptible to that disease could be

identified and then either “vaccinated” against, or removed entirely from the genome of the crop in question for future cycles. According to Respondent Five, in the event of a particular strain of a GM crop becoming susceptible to blight, the biotechnology industry could quickly address consequential damages by altering the genome of the crop in question to cause blight resistance in future instances of the crop (Respondent Five). A tantalizing benefit of GM crops is that this resistance could be attributed on a massive scale and in a single cohort, to quickly replenish seed shortages (Respondent Five). This degree of efficiency would not be possible if traditional breeding techniques were used to propagate the seeds (Respondent Five).

Though Respondent Five noted these benefits of GM crops, the great majority of food-risk discussions chronicled in this thesis pertain to genetic modification. Fair trade items were seen as categorically beneficial with no significant risks being perceived by respondents. Free range products were also generally considered safe, but some respondents were concerned the label was little more than a form of advertisement, without adequate regulation.

The business and philosophy professors interviewed considered organic products to be the safest food type available to consumers. However, the scientists raised concern over the cleanliness of organic products which are not insulated against disease to the extent of GM foods. Organic foods are dirtier than GM foods, Respondent Five comments, as organic food production methods use naturally occurring bacteria and manure, which from his perspective, is less sterile than the production methodology for GM foods. Also, according to the science respondents and the biotechnology industry, organic foods have a shorter shelf-life compared to GM foods.

There are also external risk factors associated with organic and fair trade items. The central tenet of these factors is risk of contamination. The concern elucidated in the literature and by some respondents is that these food types may be inadequately segregated from uncertified products and GMOs. A case in point is processing equipment which may be used to package or otherwise process various types of foods, rendering the purity and authenticity of the product as labeled, in doubt. At the crux of each of these respondent concerns is a fear that there is no good way to avoid GM foods other than to buy the often more costly organic version. This fear would be allayed if all GM foods were labeled.

Labeling and Regulation

As introduced in the previous segment pertaining to food safety, labeling is an issue which permeates food consumption discussions. This section provides a synthesis of the present state of labeling for genetically modified, organic, free range, and fair trade foods in Canada. It also looks at accessibility of food regulations for consumers. Overlaying these inquiries will be my analysis of respondents' comments.

To briefly review, GM foods do not need to be labeled in Canada if they are tested and considered to be substantially equivalent to their unmodified counterparts. Organic foods are regulated, and Canada will be implementing a strict national standard for them at the end of the year 2008. Free range products are virtually unregulated. Fair trade products are regulated by international bodies, providing standardization across international borders.

Most respondents were generally in favor of stronger, more easily understandable regulations for the four food types studied. On organic products, most respondents were

concerned the regulatory distinction between certified organic (at least 70% organic) and labeled organic (at least 95% organic) would be completely lost on consumers. Most of the respondents were aware of the new organic standard and applaud it, though Respondent Five continues to hold that the organic niche market is no more than a brilliantly executed consumer fad, of no valuable distinction from GM foods.

On free range foods, most respondents were not well informed and were generally displeased though unsurprised by the lack of regulation in place to protect consumers. Even the business respondent was in favor of tougher labeling regulations. He commented that, far from hindering the market, it would actually balance it such that better products could distinguish themselves in a recognizable way from the array of products available to consumers. It is quite intriguing that all of the respondents, including the business professor, saw consumer confidence in government food regulations as being very high. The lack of regulation on free range foods was actually seen as a deterrent for consumers. It would turn consumers away as they would have to trust the information on the packaging to be accurate, without it being authenticated by regulation. Free range products were also generally seen as ethically superior to non-free range foods. A few respondents hailed the implementation of fair trade production as a way of addressing the labor injustices caused by consumer demand. A discussion of respondents connecting morality to consumption of free range and fair trade food products is pondered in the Social Identity segment of this section.

Most respondents were generally in favor of mandatory labeling on GM foods. They considered the consumer right to know the constitution of the foods consumed to be a right which should be assured through disclosure on labels. However, Respondent Four states it is too late to label genetically modified foods in this country, as they are now

ubiquitous. She continues that if mandatory GMO labeling was enacted, frivolous public fear of GMOs would erupt. It is astounding to philosophy respondents that the Canadian public does not force GM food labeling as an election issue. The “information campaign,” to use the terminology of the business respondent, of the biotechnology industry has been successful enough to create general public malaise over the genetic modification of foods. In actuality, Respondent Five estimates only 3-5 percent of the Canadian food market is for organic products.

A consumer’s right to know is frustrated not only by the lack of mandatory labeling for all products of genetic modification, but also a complicated, interconnected system of bureaucracies which act to provide coverage of food regulation in Canada. Unfortunately, these bureaucracies (Health Canada, Canadian Food Inspection Agency, Canadian Federal Government, Canadian General Standards Board, and the provincial governments) function fairly autonomously of the others and discerning the mandates of each is quite complicated.

On one hand, the consumer is responsible for educating themselves about what they eat, however, if the regulatory and production information is difficult to access or incomplete, it becomes very difficult to understand from what procedures one’s food comes into existence. Inadequate labeling makes it difficult to understand the true content of any given food item. Of concern is the consumers’ right to know what they are eating. Food production methods and regulations are complicated, especially in cases where foods are produced in one country, prepared in a second, and sold to the end-user in a third. The right of the consumer to understand the regulations of what they are consuming is frustrated by this globalized market. A respondent mentioned buying a certified organic food, discovering it was made in China, and then throwing it out. This highlights

his concern as a consumer with the enforcement side of food regulations across international borders.

Cross contamination, pollution, and differential international standards for food regulation cause loopholes to emerge in organic certification policies. Officially, independent regulatory bodies such as Quality Assurance International and United States Department of Agriculture (USDA) are mandated to ensure compliance with their published standards for organic certification. However, once a food crosses an international border, it is unclear as to what checks are actually enforced in order to keep the authenticity of the certification process. The reluctance of a respondent to trust the organic certification process in China highlights the need for a basic international standard for organic food products to assure consumers of safety in global food markets. This has already been established for the fair trade certification process, and organic certifiers could follow that model.

To discern the regulations behind food labels and certifications in Canada, one must consult government literature. The Canadian Federal Government has set up a department called Service Canada as its chief first-line resource for consumers to discover information or make inquiries about federal programs and regulations. The service is advertised on television, radio, internet, and in print (Service Canada, 2008). With a principle contact number of 1-800-O-Canada, it is very easy for consumers to remember. In order to test the viability of the service as a food consumer with a regulatory question, I contacted Service Canada on May 5, 2008. The inquiry eventually led to an answer, but the process was arduous. The following question was posed: "I recently purchased a package of mixed frozen vegetables labeled as certified organic. The item was packaged in the United States and purchased in Montréal, Québec. Whose organic certification

standards were used?” The representative of Service Canada said for any federal program, if she was unable to find the answer to an inquiry, she would recommend other government agencies to contact. When questioned about food regulations, she reiterated that Service Canada’s mandate was only concerned with federal programs. As food regulation falls into both federal and provincial jurisdictions, the operator stated this inquiry was beyond the scope of Service Canada.

When unable to provide an answer to this inquiry, the agency offered contact information for other government agencies in the form of voicemail accounts and email addresses. Most of these contacts either did not respond to inquiries or led me through a chain of other agencies, usually ending in unreturned messages or a dead end. One of the departments Service Canada recommended to call was Health Canada (strangely not Canadian Food Inspection Agency, CFIA). When Health Canada was called, it recommended calling CFIA. When CFIA was called with this same inquiry, they were uncertain of the answer, but recommended contacting the certification body named on the food package.

For this particular product, USDA was listed as the certification body and it was contacted. From there was a directive to call the United States Food and Drug Administration (FDA). There was no one present at the FDA to answer the question, but there was a prompt to leave voicemail. Two days later, the FDA returned the call. The FDA representative answered this question only on condition of not being personally cited or recorded. She also wanted personal information such as my name, address, profession, purpose of call, and how this phone number was found, before she would get into the answer. Once these terms were satisfied, she said that the destination country would stipulate the criteria it required for a product with a certain label to be sold in the country.

Yet, at present, (and until December 14, 2008) the Canadian General Standards Board does not have a uniform standard for organic food certification, domestically or from abroad. The FDA continued that there are still regulatory inconsistencies as different organic certifiers specify their own criteria. For better consumer information, the online portions of CFIA and CGSB have recently (Spring, 2008) evolved to provide accessible summaries of food regulatory standards, but for those without internet access, discovering this information would remain a challenge.

Food label types such as organic, free range, fair trade, and genetically modified are often misunderstood. There needs to be a better standardization of labeling at the federal level. Policy already exists and will be enacted for this on December 14, 2008 for organic certification, but there needs to be a more stringent and transparent regulation of free range products, as the term is presently open to exploitation. There needs to be more public promotion of the meaning of food labels. For many years, the federal government has mandated the existence of the Canada Food Guide as a tool for aiding the public in making healthy food choices (Health Canada, 2008). It would be very straightforward to incorporate these summaries into the Canada Food Guide, which already has established distribution infrastructure and credibility. A brief explanation of what the organic, free range, fair trade, and genetically modified designations mean, along with information on how to access further literature including actual government standards for these food label types could be added to the food guide, and would prove immensely useful to the food choices of its readers. However, as of May 5, 2008, the Federal Government does not intend to do this (Service Canada, 2008).

Respondents note it is appropriate to be cautiously optimistic the government will continue to improve public accessibility of food regulations and offer a greater level of

standardization across the country, especially for organic foods. Over the course of this thesis, government agencies such as Canadian Food Inspection Agency have made the organic standard easily accessible from the main webpage. CFIA has also improved the search feature immensely. At present (Spring, 2008), from any of Health Canada, Government of Canada, Canadian General Standards Board, or CFIA websites, a consumer with internet access may easily access the actual organic standard and a summary thereof. This is a marked improvement from 2007, when the standards online were organized by file number, not by name, rendering consumer searches virtually fruitless. The telephone assistance service of the government of Canada, Service Canada, remains inadequately informed, though the concept of a central consumer information line has immense potential. Perhaps additional funding for knowledge infrastructure at Service Canada could create an invaluable consumer resource.

Accessibility of government regulatory information concerning food safety has been exponentially improved since this project commenced in April 2006. However, this progress has been predominantly with regard to organic foods. Free range claims must be regulated to protect consumer interests (Respondent Six). Genetically modified foods should either be labeled, or there should be legislation preventing the existence of GM foods with the most virulent allergens as per the AAIA. Respondents note a consumer concern with food safety and regulation which leads into social identity claims being attached to certain modes of food consumption.

Social Identity

Throughout the preparation of this thesis, individual social identity has been a foundational issue of consideration in food politics. The philosophies of genetic

modification, concerns over food safety, and regulatory issues are facets of the underlying concern, which is social identity. As Belasco (2002) and others have posited, one's food consumption acts as a window on their social identity. It is not just what one eats, but more significantly, what one refuses to eat, which provides this window.

Respondents note food consumption appears to be a mundane issue at first glance, however "if one stops to think" about its implications, there are very important issues relating to health, identity and philosophy which emerge (Respondent Two). The sociality of food vending draws a poignant nuance in that large companies use a plurality of regional banners. On the surface of the issue, it appears puzzling that a corporation would invest in several groups of regional product brands. However, this achieves two effects of high value to consumers: perception of choice and reduction of fears over corporate monopolization by providing an image, though false, of competition and resistance to corporate hegemony (Respondent Five).

One point of particular interest to respondents was the idea of moral obligation. Some respondents were concerned about animal rights violations associated with factory farming. They spoke of potential health risks from eating livestock which had led a stressful, unnatural life. Even those who were meat eaters perceived the conditions of factory farming to be irrational and unethical. The factory farm was seen as maximizing yield through cramped living conditions and chemical inputs, with chickens kept indoors, cruelly debeaked, and unhealthy. This image is vivid, yet factory-farmed meat is the standard, not the exception for consumption.

Poignantly, when the idea of moral obligation arose, most of the respondents spoke with conviction about the dereliction of animal quality of life in factory farm settings, but to a lesser extent about the quality of livelihood for workers in the food

production industry. With an obligation to minimize unnecessary suffering for livestock in mind, it is quite surprising that fair trading conditions were not discussed with as much intensity. It is peculiar that there are so few fair trade food items available at first thought. Yet upon further examination, they are carefully regulated and it is expensive for corporations to pay workers according to the stipulations of the fair trade certification process. What is truly surprising, however, is that free range food products are even rarer than fair trade ones. With no real legislation, the free range label can mean virtually whatever manufacturers desire. This could become a potentially brilliant niche market of ideologically driven consumers trying to purchase ethically produced food commodities, and willing to pay a premium for it. It is quizzical that free range is not touted to the extent of the organic label, as a significant investment would not be required given the lack of regulation.

In this project, the concept of morality has featured prominently in food politics. Many respondents discussed an ethical obligation for consumers to purchase free range and fair trade products. The technique of inculcating a perceived moral imperative for consumers is also invoked by the biotechnology industry for its products (CBI, 2008). The biotechnology industry historically claimed that GM foods would revolutionize food production, leading to massive food surpluses and other added benefits such as increased yield, better shelf life, higher protein content, and increased general healthfulness (CBI, 2007). The industry continued that there was a moral imperative to use GM products as they would help to alleviate world hunger (CBI, 2007). Philosophy respondents scoff at this as being propaganda and rhetoric.

Consumers have developed malaise mixed with a small amount of fear over GM foods (Respondent Five). Therefore the agri-food industry is shifting focus towards

organic foods. Organic foods are now marketed using the same morality claims previously attributed by the food industry to GM foods. There has been a general *laissez-faire* attitude amongst the public towards food production (Respondent 5). However, there is wariness over the idea of life-forms that are hybrids of more than one species, especially those which cross the animal-plant barrier (Respondent 5). The discomfort over bacteria-plant hybrids, such as the ubiquitous Roundup Ready Corn, is much quieter (Respondent Four; Respondent Five).

Interview respondents, especially Respondent Five, contend that people are largely unaware that bacteria-plant hybrids make up a majority of many staple crops in Canada. This respondent posited people may not consider bacteria to be on the same level in a perceived hierarchy of life as animals, but they are still living, non-plant beings. Some respondents note that crossing species barriers of *higher* life forms is seen as dangerous for many lay people, such as those with allergies or religious convictions. Philosophy respondents note that some religions not only forbid the modification of life at the molecular level through non-breeding techniques, but they also establish specific dietary plans to help their followers avoid food products considered to result from immoral or unsafe production methods. With unlabeled GM products on the market it is difficult if not impossible to adhere to the literal instructions of these religious norms.

An intriguing issue of social identity relates to the success of the food industry at making GM products appear benign to consumers, while simultaneously selling organic foods as being free from chemical interference. By managing to sell organics as a symbol of an environmentally conscious and responsible consumer, the food industry is able to market these specialty goods at a higher price than foods which have not been certified organic. As a result of this, respondents note it is likely that consumers of organic

products manifest class status preoccupations by associating food commodities with perceptions of righteous identity and satisfaction. Respondents, especially the scientists, noted from their research that the general public tends to view consumers of organic food products as being more concerned with conspicuous consumption than food safety and environmental consciousness.

The consumers to whom the portrait of ethical and sustainable food products is sold are not being fairly informed of the actual methodology of production. Though online government standards have become much more accessible between 2006 and 2008, they are still daunting to read. Since it is illegal for companies to falsely advertise their products, it creates a likelihood of consumer trust in advertisements. However, upon scrutiny of government regulations, there are loopholes which allow for misleading advertising. By projecting organic products as being for environmentally conscious people with disposable income, the food industry has managed to sell competing ideologies without drawing a negative spotlight on their GM foods which they have described as using traditional and conventional production methods.

The literature on the philosophy of food consumption is well articulated. It points to ethical, moral and other issues. However, the present industry push for ethical or environmentally-friendly food products in advertising is disingenuous according to two respondents (Respondent Three; Respondent Five). The *free range* designation means whatever the food industry interprets it as, with the only caveat being a need for access to the outdoors. Respondents Five and Six comment that these niche markets are driven by industry profit potential, and achieved through a calculated inculcation of consumer ideology to perceive these food types as superior. Respondent Three contends it is likely

that most foods labeled as *green* or *ecological* are done so to sell a perceived identity to consumers with an inaccurate perception of the actual production method.

There is an inextricable link between identity and one's food consumption.

Consumers manage their dietary regimens as a way of expressing their moral philosophies and health concerns. However, consumers seeking to express their identities through food consumption may be misled by advertising claims which are permissible through gaps in government regulation. Consumers should have straightforward access to the government standards to gain understanding of whether certain advertised identity claims are valid.

Conclusion

The debate over whether genetically modified foods are the same *thing* as their unmodified counterparts remains unresolved, but it has become clear that it is unrealistic to expect labeling of all GM foods. Much consumer concern over GM foods would be mitigated, however, if the AAIA's proposal of a ban on the genetic modification of the most allergenic foods was legislated, or at least if such foods were subject to mandatory labeling. As public concerns over food policy change, and market-shares of the food types shift, much scholarly work will be needed to study the emergent consequences of food politics and labeling.

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Appendix I: Sample Interview Consent Form

CONSENT TO PARTICIPATE IN:

Perceptions of Food Risk and Labeling

This is to state that I agree to participate in a program of research being conducted by Kyle Zelmer of Sociology of Concordia University. Contact information for the researcher is k_zelm@alcor.concordia.ca or by telephone at (514) 937-5299.

A. PURPOSE

The purpose of this project is to stimulate interest and awareness of food labeling and politics amongst respondents. It is hoped that this work will help to elevate public awareness of food labeling regulations and issues through the publication of the final report and articles stemming from it onto publicly known and accessible internet websites.

B. PROCEDURES

The interviews will take the following form: There will be two groups of respondents. The first will be constituted of professors in the departments of philosophy, natural science, and business from English universities in Montréal (McGill and Concordia) whose research interests highlight at least one of the following: environmental sustainability, food safety, genetically modified organisms, biotechnology, or rural economy. This group of respondents will be asked through semi-structured interviews how they perceive organic, free range, fair trade, and genetically modified foods. These respondents will be randomly chosen a pool of those with relevant research expertise from each selected department. The interview questions will also examine how respondents understand differences and similarities of types of foods such as organic, free range, fair trade, and genetically modified. In addition, consumption patterns and rationality, the extent to which respondents discuss food safety and politics in their classes and whether there are significant differences of opinion between disciplines will be examined. Estimated participation time for respondents in the first group is thirty minutes.

The second group of respondents will be representatives of grocery businesses operating on the Island of Montréal. Through semi-structured interviews, respondents will be asked what types of organic, free range, fair trade, and genetically modified food marketing strategies are being used by their businesses to cultivate and meet market demand. Three respondents will be selected with one respondent for each of the principle grocery businesses in the province of Québec; Loblaws, IGA, and Metro. Respondents will be asked how their companies employ strategies such as branding,

niche marketing, and image. Respondents will be asked their approximate present and projected profit margins for organic, free range, and fair trade, and genetically modified foods. Also, respondents will be asked what they perceive as the main benefits and challenges of expanding these markets in addition to how they will try to win public trust for their products. Estimated participation time these respondent is twenty minutes.

Results from interviews are confidential. In order to participate, this form must be signed. It is strongly recommended that you keep a copy of this consent form for your records. Consent may be rescinded at any time without contest. The final report will have no personally identifiable information, and copies will be given to respondents upon request. The personal information provided will be kept in a secure location mandated by the University Ethics Committee for a period of seven years, after which point, it will be physically destroyed beyond recovery. If a respondent wishes their data to be eliminated sooner than that or rescinds consent, it will be removed from the rest of the data and physically destroyed by burning within two business days. The researcher and Concordia University assume no liability from the conduction of this project.

C. RISKS AND BENEFITS

As with any research project, there are mild potential risks to participants. It is possible that a respondent could become offended during a meeting due to misunderstanding or misinterpretation of discussion. However, this is unlikely as the researcher will meet individually with respondents. The researcher will make an effort to be respectful and courteous. A second risk relates to the confidentiality of this work. Though the researcher will make certain to keep respondents' personally identifiable data confidential, if respondents chose to network with each other after all interviews have been completed, they will accept that other respondents will have their email address. The researcher and Concordia University are not liable for this.

Participation in this study and the option to view the final report will yield benefits which certainly outweigh risks. Increased awareness of food labeling regulations is in and of itself beneficial to making informed decisions about food consumption. The final report will also show perceptions of food labeling in comparison with actual labeling regulations, which could be quite interesting to respondents.

D. CONDITIONS OF PARTICIPATION

- I understand that I am free to withdraw my consent and discontinue my participation at anytime without consequences.
- I understand that any data I provide will be deleted and destroyed if I wish.
- I am of the age of majority, at least 18 years of age.

- I understand that my participation in this study is CONFIDENTIAL (i.e., the researcher will know, but will not disclose my identity, unless written consent is given).
- I understand that the data from this study may be published.
- **Please circle appropriate response:**
 - o I **allow** / **do not allow** my name to be shared with other respondents for networking purposes.
 - I wish to network with: **the academic group** / **the business group** / **or both**.

I HAVE CAREFULLY STUDIED THE ABOVE AND UNDERSTAND THIS AGREEMENT. I FREELY CONSENT AND VOLUNTARILY AGREE TO PARTICIPATE IN THIS STUDY.

NAME (please print) _____

SIGNATURE _____

If at any time you have questions about your rights as a research participant, please contact Adela Reid, Research Ethics and Compliance Officer, Concordia University, at (514) 848-2424 x7481 or by email at adela.reid@concordia.ca

Appendix II: Marketing Strategy Tables

Table 3: Loblaws Marketing Strategy (Québec Website Accessed February 17, 2008)			
Claimed Variable	Type of Product		
	Organic	Free range	Fair trade
Healthy	Listed under healthy living section (Loblaws, 2008c).	N/A	N/A
Price	Close to that of traditional foods (Loblaws, 2008d)	N/A	N/A
Environment	Please see Meaning of Label	N/A	Environmental sustainability (Loblaws, 2008e)
Lifestyle	Healthy, responsible (Loblaws 2008a)	Ethical (Loblaws 2008b)	Products ethically produced (Loblaws 2008e)
Quality	Fresh, minimally processed, traditional taste (Loblaws 2008d)	Tasty, happy eggs are "from uncaged hens" (Loblaws 2008b)	Thorough "system of monitoring, auditing and certification" (Loblaws 2008e)
Meaning of label	Better for land, people, animals... "strict organic standards... no chemicals... Help protect the environment... preserve natural diversity... recycling of materials and resources" (Loblaws 2008d) no GM (Loblaws 2008f)	"Open concept, weather-sheltered barn environment, where they [hens] are free to roam, feed, roost, nest and perch" (Loblaws 2008b)	"Fair compensation for their products and labour, sustainable environmental practices, improved social services, investment in local economic infrastructure" (Loblaws 2008e)
Accuracy	Quotes principles of the National Organic Standards Office (Loblaws 2008f) but not distinction between organic logo and organic designation	Regulation is insufficient to provide a standardized definition for comparison	No certification body cited, but information provided is congruous with definition of fair trade by Trans-Fair Canada
Mode of production	"Traditional," avoiding modern modes, GM downplayed (Loblaws 2008d)	Please see meaning of label	Please see ethics and meaning of label
Certification	Quality Assurance International, which meets government standards (Loblaws 2008f)	N/A	No certifiers listed
Ethics	"Attentive care that promotes the health and behavioral needs of livestock (Loblaws 2008f)	Claims the living conditions for the hens are very good	"Based on dialogue, transparency and respect... better trading conditions... fair compensation" for producers (Loblaws 2008e)

Table 4: IGA Marketing Strategies (Québec Website, Accessed February 18, 2008)			
Claimed Variable	Type of Product		
	Organic	Free range	Fair trade
Health	Though no specific claims are made, the organic explanation webpage is accessed through IGA's "health tips" (IGA Canada, 2008b)	"No antibiotics, preservatives or medications in the feed" (IGA Canada, 2008c)	N/A
Price	On the webpage explaining organic foods, this is not mentioned.	N/A	N/A
Environment	"Methods which are sustainable and harmonious with the environment" (IGA Canada, 2008c)	"No antibiotics, preservatives or medications in the feed" (IGA Canada, 2008c)	N/A
Lifestyle	N/A	N/A	N/A
Quality	N/A	This product is also organic, which is "certified to the highest standards" (IGA Canada, 2008c)	N/A
Meaning of label	"No synthetic pesticides, no seeds from GMOs (genetically modified organisms), no artificial colorants, flavors or additives... very strict rules", overseen by government, certification process (IGA Canada, 2008b)	Please see lifestyle and environment	N/A
Accuracy	Outlines Canadian organic certification guidelines, and distinguishes organic from fair trade and genetically modified foods (IGA Canada, 2008b)	No explanation of free range means, no distinction from organic	N/A
Mode of production	Free of synthetic pesticides, seeds of GMOs, artificial colorants, flavors or additives (IGA Canada, 2008b)	Free range and organic: lack of antibiotics, preservatives, and medications "in the feed" (IGA Canada, 2008c)	N/A
Certification	Garantie Bio, Eco Cert, Biologique Certifie OCIA, IFOAM Accredited, Québec Vrai, Quality Assurance International	For organic: Quality Assurance International, for free range, no specification	N/A
Ethics	N/A	"From free run hens" (IGA Canada 2008c)	N/A

Table 5: Metro Marketing Strategy (Accessed February 18, 2008)			
Claimed Variable	Type of Product		
	Organic	Free range	Fair trade
Health	Though lower in pesticides than non organic foods, studies do not prove them to be healthier (Metro 2008b)	N/A	N/A
Price	N/A	N/A	N/A
Environment	They are better for the environment (Metro 2008b)	N/A	N/A
Lifestyle	Listed under "The art of living" (Metro 2008b)	N/A	N/A
Quality	Metro's studies state reasons consumers buy organic are: "dietary and health safety, protection of the environment, and the taste" (Metro 2008b)	N/A	N/A
Meaning of label	"Free from all pesticides, chemical fertilizers, genetically modified organisms, antibiotics, and growth hormones," livestock was fed vegetarian meals (Metro 2008c). Organic, ecological, or biodynamic names are strictly regulated with respect to the certification (Metro 2008c) but organic products may still be contaminated from ground or air (Metro 2008b). "Beware of so-called organic products that don't display any of" the six certified organic labels authorized in Québec (Metro 2008c)	N/A	N/A
Accuracy	The website provides reasonably good information, but it does not include information on the Canada Organic logo	N/A	N/A
Mode of production	Strict guidelines for certification, but only voluntary standards for production (Metro 2008c)	N/A	N/A
Certification	Garantie Bio, Eco Cert, Biologique Certifie OCIA, IFOAM Accredited, Québec Vrai, Quality Assurance International	N/A	N/A
Ethics	"Methods that respect both the animals and the conditions in which they are raised" (Metro 2008c)	N/A	N/A

Appendix III: Respondent Profiles

Table 6: Respondent 1						
Demographic						
Job Description	Research Interest	Location of Education	Gender	Age Bracket	Religiosity	Special Diet
Professor of Philosophy	Science and technology	Canada	Male	50-60	Atheist	No
Interview Responses						
Understanding of organic label	To be certified organic, there are rules for what may be ingredients of the animal feed, for vegetables, the “method of growing [them]” is different from standard methods. No specific methods of production known					
Understanding of free range	“The chickens are not in cages but are allowed to roam freely” More humane than traditions methods of production which use “very small cages” which is “problematic from an ethical standpoint”					
Understanding of fair trade	Not sure but guesses that producers are “treated in fair and equitable ways”					
Understanding of genetically modified food	None, had not previously heard of GM foods					
After explanation of GM foods, asked if they should be labeled. (Definition of GM foods is that used by the government of Canada discussed on page 82)	Certainly, “the more labeling the better,” there is a need to protect consumer safety. The consumer has “right to know what they are consuming” Expressed concern that even if GM foods were to be labeled, the general public would likely be unaware of what this means because in his opinion, most people do not read food labels, and those that do may still have difficulty with grasping technical information and separating it from advertising. The government should impose mandatory labeling of GM foods					
Consumption habits	He purchases organic fruit and vegetables when it is convenient, always buys free range eggs. This professor does not discuss food issues in his classes					
Respondent’s Comments						
Consumer has “moral obligation” to avoid consumption of foods which are unethically produced Unable to perceive differences in taste or quality between free range and “normal” eggs There may be long term health affects of consuming foods from high stress modes of production, such animals being in tiny cages. This needs to be studied in academic longitudinal research Should read work by Peter Singer on ethics						

Table 7: Respondent 2						
Demographic						
Job Description	Research Interest	Location of Education	Gender	Age Bracket	Religiosity	Special Diet
Professor of Philosophy	Science and technology	Canada, Europe	Male	50-60	Lifelong Atheist	Vegan
Interview Responses						
Understanding of organic label	Thorough understanding of it from research					
Understanding of free range	None, but respondent is vegan					
Understanding of fair trade	Heard of it, "but never bothered to inquire" as to its meaning Asked for information about fair trade regulation					
Understanding of Genetically Modified Food	Has research and teaching experience with scientific and philosophical issues pertaining to GM					
Should GM foods be labeled?	Better public education of food labels and stringent regulation is needed. Respondent feels existing labeling legislation in Canada is too lax, and that companies use misleading labels to advertise more than to explain constitution or method of production of foods					
Consumption Habits	Purchases organic when convenient, price is not an issue, but is concerned that foods labeled as organic may not meet standards, or that there maybe cross-contamination of organic foods if they are processed on the same equipment as non-organic foods					
Respondent's Comments						
"If one stops to think" about food implications, there are very important issues relating to health and philosophy which begin to emerge. He assets the population should force the government to implement strict labeling and food safety regulations because corporations cannot effectively regulate themselves.						

Table 8: Respondent 3						
Demographic						
Job Description	Research Interest	Location of Education	Gender	Age Bracket	Religiosity	Special Diet
Professor of Philosophy	Environmental philosophy	United States	Male	40-50	Naturalist Unitarian	Vegetarian except fish he catches
Interview Responses						
Understanding of organic label	"No artificial fertilizer, no pesticides, except natural pesticides such as copper sulfate, a number of different [certification] bodies: Canada Organic, Quality Assurance International, Québec Vrai, USDA Organic. Organic certification prohibits genetic modification. Main reason he buys organic foods is environmental					
Understanding of free range	"I know less about free range... the animals aren't confined in nearly as small a space as so-called conventional" methods of production					
Understanding of fair trade	"Not familiar with the certification... [perhaps] a way to give people who produce any given item a fairer wage so that its less unjustly exploitative than is unfortunately the norm"					
Understanding of genetically modified food	"They are ubiquitous in our supermarkets." GM constitutes "a laboratory modification of the genes of an organism, as opposed to breeding... For millennia we have been breeding different groups," GMOs are not a result of this process and they are heavily treated with pesticides.					
Should GM foods be labeled?	Absolutely					
Consumption habits	"I try to minimize meat consumption" and buy only organic products at home					
Respondent's Comments						
<p>Discusses food politics in his classes as an example of different philosophical concepts such as altruism: "doing something to help nature will also help you." Advocates vegetarianism as it "reduces ecological footprint, reduces strain on global food supply, and is very healthy," prefers local food. Recommends reading Peter Singer on vegetarianism</p> <p>Often products which are organic are also free range or fair trade, but there are important distinctions between them. It is good to catch or hunt your own fish or meat as it will be free of many of the toxins found in commercially processed foods. When eating at a restaurant, favors organic menu items, but will still consume non-organic foods.</p> <p>He references Sandra Steingraber, who writes on food safety. He supports her position that present evidence of organic foods being healthier than GM is "somewhat weak individually, but it's certainly better for us collectively." He thinks organic products are probably minimally better for individual health.</p> <p>"Unfortunately though, I have the impression that a lot of people buy organic stuff primarily for the individual health reasons rather than the collective health, ecological health reason, which I think is a much better established rationale. It is likely foods labeled as <i>green</i> or <i>ecological</i> are done so to trick or entice consumers. The "organic thing could have a connotation of justice toward nature."</p> <p>He can find free range meat, but not free range dairy products</p> <p>"Fair-trade is pretty straightforward, the US and Canada are massively impoverishing and otherwise oppressing people around the world through so-called free trade and other bogus concepts, and fair trade is a nice catchy attempt to provide alternatives to that whole paradigm."</p> <p>"The real issue is about power... Pennsylvania has [recently] passed a law banning labeling of food as hormone free, and one or two other kinds or categories because if you label one food as hormone free, you are kind of implying that it better than hormone-full. That is an example of the naked abuse of corporate power... The real issue is about whether people have a right to choose what they buy." Banning labeling even violates the idealist conception of the free market because intervention takes away the ability for the consumer to make an informed choice.</p> <p>He recently bought frozen spinach, and later realized it was imported from China. Struck by the immense amount of fossil fuels used to transport it, and concerned with the recent scandals with food safety in China, he decided not to trust organic labels from that region. Respondent is pleased with Equiterre's initiative for buying local products.</p>						

Table 9: Respondent 4						
Demographic						
Job Description	Research Interest	Location of Education	Gender	Age Bracket	Religiosity	Special Diet
Professor of Natural Science	Agricultural technologies	Canada	Female	40-50	Agnostic	Mild food allergies
Interview Responses						
Understanding of organic label	Prohibition or minimal use of pesticide. Not sure how it is regulated. Neither safer nor healthier than GM foods.					
Understanding of free range	"The chicken has more room to roam around." The have access to fields rather than being in cages. "Some thing to do with how they were treated."					
Understanding of fair trade	"It hasn't been marketed that well." Respondent does not have specific knowledge of fair trade production.					
Understanding of genetically modified food	"Specifically the piece of gene... is used in recombinant technology rather than traditional breeding, although I did notice that lately they are changing the terminology in the textbooks [such], that they're talking about the breeding, the classical breeding of the biotechnology as well, so that they were trying to make it feel more comfortable... I noticed in the textbook, in this 202 [text book] that they would call the classical breeding as a so called biotechnology which was not my understanding initially, but then it is the same thing. I mean it's a different process, but it's similar," to traditional modes of breeding which have existed for thousands of years. This mode of production is assisted by humans "mingling with the genetics." Genetic modification involves a gene being taken out of one entity, cloned, and then added to the DNA of another. "It could be from plant to plant, it could be bacteria to plant." She estimates 80% of canola in Canadian grocery stores is GM, and that it is "impossible to find canola oil that is not genetically modified." About 70% of soy, tomato and other staple crop products are genetically modified.					
Should GM foods be labeled?	Professor uses this topic for discussion in her undergraduate classes. She posits if all GM foods were to be suddenly labeled, consumers would manifest fear of GMOs, followed by anger over not being previously informed of the GM content in foods. The "extent of the labeling" is at issue, there should not be a label if the "distinction between genetically modified and regular" modes of production is minimal. "But there should be a [labeling] distinction between different types of modifications because some of the modifications can be more harmful than the others." Labeling should be done only in the list of ingredients, because it is no more than a mode of production. The "[GM] process itself, I have no problem with." GM products are tested before going onto the market, and "if there was some bad data on the particular trait, then you can take it out. Then in that case, you need to label particular ingredients." "Honestly, in Canada, I thank its too late" to label GM foods.					
Consumption habits	"I look for whatever tastes better," so not necessarily organic or free range. Price is inconsequential in her habits, "sometimes organic tastes better than the other." She does not buy free range products. She will sometimes buy fair trade if there is a choice, but she is only able to find "coffee or chocolate." "I'm very fussy about the flavor, not all of [fair trade products] are that good [which is] very unfortunate." There is presently not a large market for fair trade, making the quality of the products poor, but once it catches on, the quality will likely get much better.					
Respondent's Comments						
"The reason I don't buy organic foods [except cereals and cookies] is I'm suspicious of the certification process."						

Table 10: Respondent 5						
Demographic						
Job Description	Research Interest	Location of Education	Gender	Age Bracket	Religiosity	Special Diet
Professor of Natural Science	Plant biology	Canada	Male	40-50	None, raised Christian	Food allergies
Interview Responses						
Understanding of organic label	Certification is voluntary, and “certainly not through government agencies. Organic is a lifestyle... It’s a back to nature approach where you treat the soil less drastically than do factory farmers, you try to use... natural insecticide as opposed to chemically synthesized insecticides, you pull the weeds by hand.”					
Understanding of free range	“The free range label, I see that conceptually as in what it doesn’t mean, and it doesn’t mean factory farms, it means that the chickens which are the classic example, that they get actually to move around, rather than being kept in a one by one square [foot] cage just to get fat... I suspect that there’s no [regulatory] labeling body for free range” products.					
Understanding of fair trade	It pays producers “exactly what the product is worth, so if it would cost 15 dollars to generate a pound of coffee in Canada, the farmer doing that in Costa Rica should get 15 dollars rather than the 15 cents that would be the typical wage of a Costa Rican farmer... I suspect it’s not regulated.”					
Understanding of genetically modified food	“Genetically modified food, in the broader sense, is any species that has been modified by having its genome altered, the concern that most people have is that some of the genes that have been introduced, have been introduced by recombinant DNA technology which means that those genes are not normally found in that organism and in some cases are not even normally found in that genome or species. Bacteria is introduced into plant species, or animal genes moving to different animal species... To me, genetically modified means just that the genome has been altered, but I think in most people, genetic modification probably means the transfer of DNA.” In terms of risk of GM, “the potential for catastrophic events is higher, but in general I don’t see it as a risky thing... I don’t think they have to be labeled at all in Canada... The potential for risk [exists], although it’s very small, but some crazy person somewhere could take a toxic gene from some organism and he could introduce it into a plant” but it’s implausible it would make it onto the market.					
Should GM foods be labeled?	No, a historical tomato and a GM tomato are “the same, DNA is DNA.”					
Consumption habits	Habitually and knowingly eats GM foods, does not buy organic products					
Respondent’s Comments						
<p>Aside from the potential for bio-terrorism, “I don’t see [GM] as a new problem because when somebody used historical breeding methods, to breed a crop that had some sort of advantage in yield of production over another crop, everybody bought that, and so it went everywhere and so if that plant was more susceptible to a disease, it was everywhere, and when the disease hit, every thing died, and that was classic. I mean the potato blight in Ireland, everybody was using the same kind of potato because it was the best potato... biotech, recombinant DNA technology hasn’t changed that.”</p> <p>Organic food consumption “is a lifestyle, I think people’s lives are so hectic and they’re so stressed and everyone’s so busy, that its nice to imagine that there’s a few chickens running around in a field somewhere and that this farmer is out picking the bugs off the potato plants one at a time, and if people have disposable income,” they will opt for food they think is better quality because its more costly. This is similar to people assuming a five-dollar cup of coffee at Starbucks must be “far superior to a one-dollar coffee” elsewhere.</p> <p>“In science, nothing is sure, and so we’re still testing but the laboratory is huge, and we’ve done millions of people having millions of GMOs and the data don’t suggest that that’s causing anybody any problems yet. And the other thing that a lot of people that I see in the anti-GMO movement, is that people don’t like big corporations.” Yet he notes, the corporations would not get a “return on their investment” if they marketed unsafe foods.</p>						

Table 11: Respondent 6						
Demographic						
Job Description	Research Interest	Location of Education	Gender	Age Bracket	Religiosity	Special Diet
Professor of Business / Consultant	Anonymity in jeopardy if revealed	United States, France	Male	50-60	No preference	Partner has dietary restrictions
Interview Responses						
Understanding of organic label	Not certain, though has something to do with the regulation of the pesticide and insecticides.					
Understanding of free range	"I haven't come across that word, <i>free range</i> food. Does it mean cattle and animals are free in the field and they consume whatever food they find there" as opposed to the traditional factory farm of chickens in cages? Respondent notes poultry in Québec is marketed as "grain fed" perhaps implying chickens are free to roam in fields.					
Understanding of fair trade	Regularly sees fair trade products in stores though thinks "it's fairly new." Not certain about the regulation of fair trade.					
Understanding of genetically modified food	GM foods in "Canada, if I understand correctly, I don't see any real concern about it, I know there is lots of concern in Europe, I think even some regulation in Europe to ban genetically modified foods, but I think in Canada, we are probably consuming it and not knowing it."					
Should GM foods be labeled?	Labels on food products are needed for consumer protection. "I think full disclosure should be a rule, when information is useful for the consumer, I think it should be given on the label. I think we have very good labeling regulations in Canada. "Information should be given so that consumers can judge on their own."					
Consumption Habits	"Some times I buy [organic foods] I don't buy all organic food... I don't see any difference in taste." Respondent is unsure as to whether the free range market is going to be successful, and the meaning of free range "would have to be [better] explained" to the consumer. He buys fair trade coffee beans, and thinks fair trade will catch on as a successful niche market.					
Respondent's Comments						
"Specialty food items [such as organic] appeal to a very specific kind of people. I think from a marketing point of view we call that a market segment... I'm sure there is a very specific demographic for those kind of people, they tend to be young, more educated, maybe high income, and then they may have some health concerns. They may have some diet concerns and so that's why they would go for organic food. It costs more, so you have to have high income and then you have to be able to measure the benefits of using them. Organic foods are likely consumed at a greater rate than free range and fair trade products as there has been a better "information campaign" on the part of businesses for organic products. For the free range and fair trade markets to expand, companies need to provide better information to the consumer as to how these designations are different from typical food products.						