



Let the Market Decide? Canadian Farmers Fight the Logic of Market Choice in GM Wheat

Emily Eaton¹

University of Regina: Department of Geography
Regina, Saskatchewan S4S 0A2
Emily.eaton@uregina.ca

Abstract

This paper examines the controversy that surrounded Monsanto's attempt to commercialize genetically engineered Roundup Ready (RR) wheat in Canada in the early 2000s. Specifically, the paper interrogates the argument made by RR wheat proponents that the fate of RR wheat should be decided in the marketplace according to individual choice. To counter the common-sense notion of the right of consumers and producers to market choice, anti-RR wheat activists, led by agricultural producers, advanced notions of collective action. They argued that markets offered a very narrow set of choices and that once introduced into agricultural systems, RR wheat threatened already existing agronomic practices and export markets. The paper argues that the "let the markets decide" approach denies the common positionality of farmers as producers of food and forecloses a politics of production. Similarly, in the realm of consumption, agency beyond individual self-interest is rendered unthinkable.

Keywords: market choice, subjectivity, neoliberalism, genetic modification



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Introduction

[T]here's a lot of debate on how much benefit local farmers have had ... in using [GM] Canola for example. Saskatchewan farmers, well they've readily adopted that technology right? And they have the choice. They don't have to pay for that seed, they don't have to use that technology, but they are. And they're not stupid. So why are they using it? 'Cause obviously they're seeing a benefit to it right?

- Interview, Agwest Bio Inc.

[M]odern individuals are not merely "free to choose", but *obliged to be free*, to understand and enact their lives in terms of choice. They must interpret their past and dream their future as outcomes of choices made or choices still to make.

- Rose (1999: 87)

In 2001, a coalition of farm, rural, consumer and health organizations joined forces to launch a public campaign against Monsanto's efforts to commercialize genetically modified Roundup Ready (RR) wheat in Canada. For farm/rural organizations (which comprised 6 of the 9 organizations involved in the coalition, see Eaton, 2009) RR wheat posed significant threats. The most significant risks included the loss of export markets, especially those of Europe and Japan, which strictly prohibited GM products; the danger of widespread contamination of Canadian wheat rendering organic production effectively impossible; and the agronomic difficulties associated with growing a second RR crop in rotations with RR canola. Such risks have been similarly documented by Olson (2005) who examined the controversy around the introduction of Monsanto's RR wheat in the USA. With much at stake, farmer-led movements in both countries launched ultimately successful campaigns to keep RR wheat at bay.

Perhaps the greatest discursive challenge for the Canadian coalition was countering the view that the fate of RR wheat should be decided in the marketplace through the mechanism of demand. Advocates of RR wheat claimed that producers and consumers could register their opposition by choosing not to buy RR wheat seed, and not to buy GM foods. However, Monsanto itself denied producers and consumers the opportunity to register their dissent on markets when it withdrew its application for commercialization of RR wheat to the Canadian Food Inspection Agency in 2004. Citing reduced "business opportunities" for the product (Monsanto Company, 2004), Monsanto conceded to the widespread opposition to RR wheat amongst prairie farmers².

² In a random survey of farmers across Manitoba, Saskatchewan and Alberta, Mauro, McLachlan and Van Acker (2009) found that 83.2 percent of respondents disagreed that RR wheat should be granted unconfined release into the environment (a prerequisite of commercialization).

If Rose (1999, as quoted above) is correct, it should come as no surprise that discourses of market choice were abundant in the interviews I conducted with actors representing all relevant institutions and organizations supporting the introduction of RR wheat in Canada. For Rose, subjects of advanced liberalism necessarily understand themselves and their relationships to the world around them as constituted by personal choices and the exercise of freedom. Under capitalism, economic relations, in particular, produce and depend on a form of formal freedom in production and consumption (Rose, 1999, 66). It follows that the proper role of the state is to make individual choice the organizing principle of the economy. Indeed, this was one conception of choice that was well represented by proponents of RR wheat including biotech companies, trade associations and lobby groups, plant breeders, scientists, regulators and farm organizations. Often citing the success of RR canola and the widespread adoption of the technology amongst prairie farmers (as in the quote above), such advocates insisted that the only just method to decide the future of RR wheat was to introduce it into the market and let individual producers and consumers choose whether to buy it based on their own needs. The marketplace was here naturalized as the appropriate site and mechanism for social change.

This paper examines this common-sense notion of the right of consumers and producers to market choice by juxtaposing it with discourses of collective action advanced by anti-RR wheat activists and by interrogating the political subjectivities associated with the different articulations. I begin by outlining the context of this research and establishing my intellectual debts on the topic of individual consumer choice and political subjectivity. I then go on to flesh out the concept of market choice that was front and centre in the reasoning of proponents of RR wheat. In the next section, I bring to the fore the alternative discourses of collective action of anti-RR wheat activists and discuss the political subjectivities associated with the discourses put forward by the two sides of the debate. I argue that the market conception of choice forecloses options for collective action by stripping farmers of their common positionality as producers of food and by pre-empting action beyond self-interest for consumers.

Research Context

This research is based on 43 in-depth interviews conducted in 2006 and 2007 with representatives from all sides of the debate around the commercialization of RR wheat in Canada. Interviews with representatives from biotech lobby groups, industry organizations, members of the coalition against RR wheat, relevant government agencies, public scientists and plant breeders, and Monsanto Canada inform this paper most substantively. As part of a larger project about the politics of RR wheat, this paper is also influenced by the policy statements and press releases from the different constituencies supporting and opposing RR wheat and

from my reading of *The Western Producer* (Western Canada's most prominent farm newspaper) of articles relating to GMOs from 2000 to 2006.

Two of the three general farm organizations in the wheat producing provinces of Canada supported the coalition against RR wheat. The Agricultural Producers Association of Saskatchewan and the Keystone Agricultural Producers (from Manitoba) probably represented the largest constituencies of the organizations involved along with the Saskatchewan Association of Rural Municipalities. The involvement of these fairly mainstream farm/rural organizations in the coalition (although somewhat precarious) indicated widespread opposition in Saskatchewan and Manitoba. The organizations were not against genetic modification. Instead they took the position that RR wheat should be halted until consumer acceptance was secured, segregation systems were developed, and agronomic concerns were taken into account in regulatory approvals.

The active core of the coalition was occupied by three organizations: the Canadian Wheat Board (CWB), which is a quasi-state marketing board with a monopoly on the export of all Western Canadian wheat; the National Farmers Union (NFU), a more left-wing organization with roots in earlier rounds of farm organizing on the prairies; and the Saskatchewan Organic Directorate (SOD), which is a relatively new organization with a high profile for its (since unsuccessful) lawsuit against Monsanto and Bayer Cropscience for the loss of canola as an organic crop on the prairies. The CWB was chiefly motivated by the loss of wheat markets, claiming 80 percent of its customers were concerned about RR wheat and advocating that a cost/benefit analysis be added to the approval process. Both the NFU and SOD took more radical positions against all GM crops pointing to the problems associated with for-profit plant science and the inevitability of contamination once GMOs were released into the "wild". The Council of Canadians, the Canadian Health Coalition and Greenpeace Canada represented a more urban cohort concerned with Canada's weak labelling scheme, the patenting of life, and potential health and environmental impacts.

There were also farm groups supporting the introduction of RR wheat in Canada including the Western Canadian Wheat Growers, the Grain Growers of Canada and the Western Barley Growers Association. These are organizations that have supported a free-market approach in farming denouncing the monopoly of the Canadian Wheat Board and resisting regulations of various types. While membership statistics were not available for any of the farm organizations, it is safe to say that these organizations represented a fairly narrow spectrum of farmers. Biotech lobby groups and industry organizations such as Croplife Canada, the Canola Council of Canada (CCC) and AgWest Bio Inc. were also central proponents in the "let the markets decide" approach. The CCC, an industry organization with farmer involvement, helped to advocate for RR wheat based on the "success" of RR canola. AgWest Bio Inc. and Croplife Canada were involved

in lobbying and worked to spread their message through the media and to influence Canadian regulators and politicians.

Consumption and Agency

Probably the most central organizing theme in contemporary food politics is consumer choice. That this seems to go without saying suggests the extent to which this notion has become taken for granted
- Guthman, 2008, 1176.

Biotechnology has been a fruitful area of research for critical scholars of agriculture and food with important contributions that highlight the changing natural, social, and industrial relations of food production. Much of this literature usefully employs political economic perspectives that focus on underlying structures and power relations including the growing influence of profit seeking corporations in agricultural and food systems. Certainly, such perspectives explain much of the story of Monsanto's attempt to commercialize RR wheat in Canada. In this paper, I take a different approach by seeking to understand the discourse of market choice as a process of subjectification with political consequences. I do this by highlighting the historically specific nature of individual market choice as a discourse of consumption and by identifying market choice as a product of neoliberal governmentality.

A central theme in the critical literature on biotechnology has been the way in which industrial capital has selectively engaged in agriculture by gaining control over and siphoning off the most lucrative agricultural activities while leaving the most risky processes to farmers. Goodman et.al. (1987), for example, have shown how corporations have taken hold of the reproduction of seed through hybridization and genetic modification while distancing themselves from the daily risks with which farmers have to contend including weather, pests, fluctuating crop prices etc. Kloppenburg (2004) has similarly exposed how the reproduction of seed has been wrestled away from public institutions and individual farmers through the process of commodification involving both technical aspects, including genetic engineering and hybridization, and legal strategies, including the expansion of private property.

Much of the critical literature on biotechnology (especially in geography) is inspired by political economic perspectives that expose the profit imperative as the driving force behind genetic modification, rather than concern over environmental impacts, consumer acceptance, or the livelihoods of small producers (see for example McAfee, 2008; Bello, 2009; Roff, 2007; Magnan, 2007; Buttle, 2005). Gramscian perspectives, for example, have been key in understanding the state's role as regulator and the influence of corporate agri-chemical actors in directing state policy and scientific research. For example, Wainwright and Mercer (2009) have employed a Gramscian perspective on the science of genetic contamination foregrounding the ways in which science is a social practice that is fully subject to

broader power relations. Prudham and Morris (2006) also take up a Gramscian perspective to demonstrate how the Canadian state has been more concerned with making the market safe for GM foods than making GM foods safe for civil society.

Geographers have done a less thorough job thus far investigating the question of subject formation as it relates to biotech actors. In this paper, I attempt to address this gap by bringing conceptions of neoliberal governmentality to bear on a particular biotech struggle in which the discourse of individual market choice played a central role. Following Dean (1999, 16) governmentality “deals with how we think about governing ... [and] emphasizes the way in which the thought involved in practices of government is collective and relatively taken for granted”. In this respect, neoliberalism can be understood as involving specific ways of thinking about government, where government is taken to mean the attempt to direct human conduct (Dean, 1999, 11). This perspective emphasizes processes of subjectification, including the ways in which specific relations of power are reinforced by active individuals in their every-day capacities. I use the concept of governmentality because of the pervasive nature of market choice as a principle or vocabulary through which subjects govern themselves. Indeed, the notion of consumer choice seems to be a diffuse discourse that shapes neoliberal subjectivity writ large.

The first step in challenging the common-sense notion of consumer choice is to recognize it as an historically specific form of consumer agency that naturalizes the marketplace as the appropriate site and mechanism for social change. Indeed, Lang and Gabriel (2005) break the history of consumer activism in the West into four waves, each with distinct values and methods of organization and collectivity. According to them, the first widespread and organized consumer movement began in the early 1800s in Britain. The Co-operative Movement sought to supply working-class families with the basic consumer necessities of life at affordable prices that excluded profit and with the explicit goal of working outside of regular market imperatives including competition and profit-seeking.

The second movement, named “value-for-money” came into fruition in the 1930s, especially in the USA. This wave cast the market as a site of manipulation by publicizing the growing power of food corporations that were increasing their market shares through combination. Organizations like Consumers Research Inc. were established to research product safety and offer information so that consumers could cut through corporate advertising and instead pursue the best value for their money. The third wave of consumer activism is named “Naderism”, after Ralph Nader, author, activist and presidential candidate in the U.S. 2000 election. In America this movement sought to build grass-roots public pressure for stronger regulations and standards of conduct for corporations. All levels of the state were called on to protect the individual as a citizen against corporate giants. The last wave identified by Lang and Gabriel began slowly in the 1970s and continues

today. “Alternative consumerism” addresses a variety of concerns through individual purchasing of green, fair trade, ethical, organic, and other products. Originating in Europe as part of the “green” movement, alternative consumerism involves comparing the consumer products and practices of various companies and thereby encouraging producers to compete for (perceived) environmental soundness. Here, individual purchasing power is to be championed if used in conscious and strategic ways.

The notion of consumer choice that animates the fourth wave also serves more broadly as the basis for political decision-making theories in the field of political science. According to Dryzek (2000, 34), rational and social choice theories³ are premised on the example of *homo economicus* pursuing his preferences and goals in the marketplace where the choices of individuals behaving strategically and in their own interests can be aggregated to yield the optimal collective decision. The market is, thus, the most democratic decision-making instrument because of its transparent capacity to aggregate private preferences. In this perspective, the only just form of collectivity is one that has no effect on fully formed expressions of individuality.

The underlying assumptions of rational and social choice theories have been subject to intense criticism by scholars in a variety of fields (see, for example, Barnes, 1988; Tsakalotos, 2004). Dryzek criticizes these perspectives for their assumption that interests and preferences are individual and objective expressions of autonomous subjects. Instead, Dryzek advocates deliberative democracy where preferences are understood as socially constructed and individuals as being persuaded and persuading others through social and political interaction. This conception of inter-subjectivity leaves room for the possibility (even necessity) of collective decision-making and a public sphere. Furthermore, there exists the possibility that differently positioned individuals might engage in negotiated collective action.

The argument that individuals can be persuaded to understand and act upon a common good has been fundamental to notions of citizenship. This is a conception that sees citizens not only as exercising civil, political and social rights, but also as responsible to carry out the ethical obligations that accompany such rights (Rose, 1999, 134). For Johnston (2008) the commitment to a common good that characterizes citizenship practice is at odds with the discourse and practice of consumer choice. In her examination of the “citizen-consumer” hybrid, Johnston concludes that the ethics associated with shopping at the retailer Whole Foods privileges the cultural-ideology of consumerism, denies the political-economic

³ Dryzek is careful to clarify that social choice theory does not make the behavioural assumption of rational choice theory, namely that individuals act strategically and in a goal-seeking manner. Social choice theory is more concerned with the mechanisms for aggregating individual preferences than the processes through which preferences are articulated.

inequality between social classes and promotes a political-ecological message of conservation through consumption. Guthman (2003, 2004) has made similar arguments with regards to the consumption and celebration of organic foods. Roff (2007) comes to a related conclusion in her analysis of anti-GM food activism. She argues that focusing on individual consumption habits shifts responsibility away from the state and food manufacturers, opens up new markets for business, and does not challenge the increasing prominence of convenience and processed foods. In sum, these authors challenge the notion that “voting with your dollar” can result in positive social and ethical change.

For this reason, it is concerning that scholars have noted a shift under neoliberal governance whereby people are no longer addressed as citizens, but rather, are understood, and being prompted to understand themselves, first and foremost as consumers. Slocum (2004) and Clarke and Newman (2007) have documented this shift in people’s engagements with their local communities (in U.S. Climate Protection campaigns) and state services (in the U.K. public health system) respectively. Indeed, as Rose (1999, 141-142) emphatically shows, in advanced liberalism consumerism and the logic of choice extend themselves to *all* aspects of social behavior so that people are asked to use calculating economic behavior, previously reserved for the marketplace, in all interactions everywhere. Recent work on neoliberal environmental governance supports the above characterizations regarding the pervasiveness of the logic of choice and calculating economic behavior. Neoliberal governance conceives markets as the most democratic methods of allocating environmental resources and services. As long as all externalities are properly accounted for, markets are posited as capable of saving the environment from exhaustion (see, for example, Guthman, 2007, and Brown and Getz, 2008, on voluntary labeling; Bailey, 2007, on environmental ills; and Robertson, 2004, on environmental benefits).

What scholars of governmentality, such as Rose (1999, 142) and Dean (1999, 57), contribute to the literature on consumer choice is careful attention to the ways that agency is reworked in advanced liberalism for the consuming subject. With clear ties to the economic subject of interests (*homo economicus*) of 19th century liberalism, the neo-liberal subject is an entrepreneur of herself. The interests which she is expected to register on non-discriminating markets (as in rational choice models) are now expected to change based on her capacity of being influenced by her environment. She is continually engaged in acquiring new skills and making active choices that will influence all aspects of her future – psychic, material, social, etc. Calculating actions, weighing costs and benefits, investing in the future, and accounting for external contingencies characterize the neoliberal subject active in governing herself through the mechanism of choice. This is a subjectivity that draws on the assumptions of liberal subjectivity, but that intensifies expectations of flexibility and change.

Three main conclusions can be drawn from the above literatures. First, consumer activism has not always been confined to the individual practice of “voting with your dollar” on the market. Instead, consumers have organized in ways that challenge the very logic of the market and of individuality. While current consumer activism might claim to promote ethical outcomes, any means of acting collectively, especially those that challenge market logic, are clearly out of sight. In this sense (the second conclusion), current definitions of choice are narrow, and refer most often to acts of market consumption. Finally, this narrowly defined conception of economic choice has come to apply universally to widely varying realms, including public service provision and community action. For this reason, individuals understand themselves as entrepreneurs of the self, obliged to navigate through, and demand, an ongoing series of choices that make them who they are. In the next section I show how precisely this logic animated the claims made by proponents of RR wheat.

RR wheat as a matter of individual market choice

To my surprise, RR wheat proponents did not attempt to refute the widely publicized and diverse criticisms that surround the discourse of genetic modification in interviews with me. In a move that might mark a shift away from earlier public relations campaigns, where detractors were painted as anti-progress and products of genetic modification were defended as environmentally beneficial (Patel et. al., 2005), proponents of RR wheat largely accepted the criticisms mounted by anti-GM movements. Few felt it necessary to convince me that the health and environmental risks associated with GMOs are overblown, or that the corporate control associated with GM crops is benign. To the contrary, even the most vocal supporters of RR wheat admitted that seed companies pursue their own interests and do not produce the type of traits that farmers find most useful (interviews, Canola Council of Canada; Canadian Food Inspection Agency). They argued that it is up to individuals to weigh their concerns against any possible private benefits; the risks associated with RR wheat should not preclude private assessments of its merits. As this section shows, supporters of RR wheat argued that any collective or political decisions about the crop would unjustly impede individuals from making their own market decisions.

Participants representing the Canadian Food Inspection Agency (CFIA), Croplife Canada, the Western Canadian Wheat Growers, the Western Barley Growers Association Agriculture and Agri-Food Canada, the Grain Growers of Canada, Monsanto, the Canadian Biotechnology Advisory Committee, the Canola Council of Canada, Saskatchewan Agriculture and Food and Agwest Bio argued that the fairest method through which to decide the fate of RR wheat was for farmers and consumers to individually vote with their dollar in the marketplace. For example, in the following quotation a representative of the Grain Growers of Canada juxtaposes the voluntary and impartial approach attained through the

mechanism of the market with government decision-making processes that were perceived as ineffective and biased:

[S]ome were arguing lets let the government take it on, that they coordinate all the meetings and assign people to the topic and you know consult and blah, blah, blah. So what our hope was, ironically, for them to say our policy is to pursue a voluntary option at this time, an industry-driven approach (interview, Grain Growers of Canada).

Rather than a matter for public policy, the adoption of RR wheat was understood as an individual business decision to be left to those whose families and economic well-being depended on the profitability of their farms. For a participant representing the Grain Growers of Canada the decision was “just a business decision, no more, no less, and that’s it”. Furthermore, it was a decision that legitimately belonged with the farm owner and revolved around the future of the farm family. Similarly, a representative of the Western Canadian Wheat Growers underscored his organization’s approach to the issue as “more working with those companies and seeing it as having solutions that producers may choose to utilise or not and that was a choice for farmers to make”. For RR wheat proponents the farmer is the privileged actor and is best able to make decisions at the scale of the individual family.

The logic that markets rather than political movements and government should decide the fate of RR wheat was also applied to consumers. A representative from the CFIA explained that as long as any product passes the Agency’s health and environmental safety risk analysis⁴, wary consumers would have to register their concerns through the market. This same respondent elaborated that no consumer is being forced to buy GMOs and that it is always a consumer’s right not to buy what s/he does not want to eat. A member of the Canadian Biotechnology Advisory Committee provided further rationale for the consumer friendliness of the market mechanism by arguing that all the right incentives exist for a food company to regulate its own consumer safety:

Because at the end of the day it’s the companies that are liable, so there’s no incentive for them to produce a dangerous or ineffective product. If it’s ineffective it will die in the market, if it’s dangerous they’ll be sued ... so any product failure, they’re not just betting the

⁴ The CFIA’s process of decision-making regarding environmental and health safety is not without controversy. In February 2000, Environment Canada, Health Canada and the CFIA requested that the Royal Society of Canada (Canada’s senior national body of pre-eminent scientists and scholars) convene an expert panel on the future of food biotechnology. This panel evaluated the Canadian regulatory system and its capacity to cope with future products of biotechnology. It found that the regulatory approach that was in place (based on the principle of “substantial equivalence”) was not sufficiently precautionary and that the regulatory system was not adequately transparent and open to public scrutiny.

product line, they're betting the company and so in fact they usually exceed the requirements of the regulatory regime, at least the big ones because they know there's no tolerance for failure (interview, Canadian Biotechnology Advisory Committee).

In fact, for supporters of GM technologies precluding the introduction of RR wheat onto the market would mean unfairly punishing companies and consumers who wanted to take advantage of any possible individual rewards associated with genetic modification.

Closely related to the notion of markets as the only just arbiters of individual choice was the conviction that market dynamics support progress. Citing examples of technological development, proponents of RR wheat argued against the use of market impact assessment by regulators in evaluating RR wheat. In these market enthusiasts' views, preventing the introduction of RR wheat would threaten progress in the crop and would be much more harmful to the wheat industry than the loss of export wheat markets. According to this logic, producers should simply adjust to, rather than resist, changing market conditions:

We don't compensate people who are losing. ... When CDs, or DVDs became the standard, we didn't compensate the Betamax people who couldn't get videos anymore, we didn't compensate the movie theatres for the fact that they couldn't sell seats anymore, those resources had to be reallocated ... it's just accelerated depreciation and then it's a wash. So you didn't get as much benefit out of it as you might have, that's just the way the world works. That's the mentality that we now have, and it has real power, *because it pushes things forward* (interview, Canadian Biotechnology Advisory Committee, emphasis added).

The debate over market impact was brought to the fore in 2001 when AAFC scientists uncovered a clause in CFIA's regulations that would allow Variety Recommending Committees to reject a new variety based on risks to existing markets (Warick, 2003). Charged with the task of regulating plants with novel traits, the CFIA had no prior experience evaluating economic risks, and has always insisted that it regulates based on "sound science" narrowly confined to biological impacts. Once this clause was discovered and publicized, farm groups immediately began lobbying CFIA Recommending Committees (that include producer participation and representation), asking them to use this clause in order to reject the introduction of RR wheat if it were to arrive at their Committee. Despite considerable support in the farm community for taking economic risks into consideration as part of the evaluation process for new varieties, the CFIA removed the clause in 2002. According to my informant at the CFIA, economic impacts were perceived as beyond the mandate of regulators, who were to ensure the food and environmental safety of a new variety and nothing else. In effect, this decision reinforced the idea that markets, rather than public policy, could best deal with the

competing claims and interests amongst producers and between producers and industry.

Fighting against the Market

The discourses of markets as just mechanisms for registering and ensuring the right of individual choice, as already encompassing the correct incentives to ensure food and environmental safety, and as motivating technological progress proved hollow at best. Opponents of RR wheat worked hard to convey this to the public by pointing to the limited options that were available on the market, the potential and real harm of RR crops to already existing production systems, and the fact that GM foods are not identifiable in the marketplace. Indeed, proponents of RR wheat themselves often undermined their own arguments for free and just markets in their interviews with me. An interesting excerpt from an interview with a representative from Croplife Canada (a trade association representing numerous plant biotech companies) illustrates this well:

[R]ight now canola is moving ... from open pollinated, which is where farmers can save their seed ... to hybrid seed because they get better yields and better return on their investment ... [T]he choice is there ... a farmer can choose to grow an open pollinated variety, but increasingly hybrids are what the farmers are buying because they get better yields, they've got better traits because again the research and the development is going into the hybrids where the company can capture its investment. So, just like you and I buying quality products or CDs or anything like that, if the artist doesn't get the money back from what they've produced then they can't produce anymore (interview, Croplife Canada).

Here the interviewee uses the example of hybrid varieties, instead of GM varieties, in order to make the point that farmers, through their market actions, are determining which varieties succeed and fail. In the initial section of the quotation this participant presents the planting of hybrid versus open pollinated seed as the individual choice of the farmer. However, in the next breath the participant goes on to explain how the existence of hybrid crops is directly dependent on the concentration of resources and research on their development based on their potential to earn private profit. While farmers may have the opportunity to choose between the products on the market, their spectrum of choices is narrowly constrained to the capacity of new varieties to earn profit. In a breeding environment where patents on genes are increasingly the norm, products of genetic modification promise opportunities for enhanced accumulation of private profit. Thus, GM crops are similarly overrepresented in the spectrum of market choices.

Another proponent of genetic modification, representing the Canola Council of Canada, was equally contradictory in his enthusiasm for market choice

celebrating that “in canola there are really four systems available ... so farmers absolutely have a choice about what chemistries they want to and don’t want to use on their farm”. The respondent here asserts the importance of individual farmers choosing the production systems that best suit them and claims that plenty of agronomic options exist. “If they are relying very heavily on one product ... they’re probably doing that because it’s the most cost-effective option for them”. However, the choice that he celebrates involves only four options controlled and marketed as complete management systems by four large agro-chemical companies. As the following farmer (who, in fact, supported the introduction of RR wheat and represents the same organization as the respondent in the above quotation) points out, the packages promoted by such companies actually preclude a plethora of agronomic options that might be helpful to farmers and that are normally funded by public research:

The commercial research looks for short term rewards ... whereas both the government publicly-funded and the farmer publicly-funded will look at long term issues, i.e. disease issues, sustainability of the crop, protein levels of wheat, the whole ethanol starch issue. ... Normally those output traits in a plant, the value is captured by the producer; whereas the outputs values of herbicide tolerance ... can be captured by a commercial company. ...[F]armer-driven, publicly-driven research will look at input traits being housed in the seed, whereas the commercial companies will look at the traits being part of an agronomic package. And of course farmers are far more interested in the output traits in the seed because you don’t have to then drive to the local farm supply centre to buy 10,000 dollars worth of chemicals (interview, Canola Council of Canada).

Directly in opposition to the industry’s insistence on market choice, farm organizations characterized this narrow set of GM seed varieties revolving almost singularly around herbicide resistance and marketed by just a few large companies as a lack of choice. In fact, this representative of the National Farmers Union points to the concomitant loss of knowledge that is the result of such narrow agronomic options:

Yields are improving at the moment with the introduction of hybrid varieties in canola from the conventional varieties, somewhat, but really there’s not much choice left for farmers in canola to buy seeds their retailers aren’t offering them. Many of them have actually been deskilled to the point where they’ve forgotten, although they could learn it relatively quickly, how to produce otherwise (interview, National Farmers Union).

In this sense, the lack of choice that exists currently in the market shapes future spectrums of choice. Once farmers have lost the ability and tradition of saving seed

and selecting for characteristics that suit their local environments, future options are narrowed. Rather than a multiplicity of traits for which farmers select, herbicide resistance comes to dominate the market and professional breeding agendas.

A second argument with which opponents of RR wheat attempted to counter the discourse of individual market choice involved emphasizing the threats that RR crops pose to existing systems of production. The argument that RR wheat threatened current agriculture, and thus narrowed the spectrum of choice for farmers, was advanced through at least two examples. First, farmers and the Canadian Wheat Board felt that the introduction of RR wheat threatened existing wheat markets especially in Japan and the EU. In fact, the general public was quite sympathetic to AAFC and farmer efforts to invoke market impact assessment during the variety recommending process. This short extraction from an op-ed piece published in the *Globe and Mail* by four professors of agricultural economics and applied microbiology and food science summarizes the argument nicely:

It would seem logical to adopt a strategy of letting wheat farmers choose between growing GM and non-GM wheat, depending on market signals. For one thing, GM wheat will provide agronomic benefits to some wheat producers. As for the price of GM wheat – which we initially would expect to be lower than non-GM because of consumer resistance – the market will sort out how much of each type is produced to best satisfy its requirements. The trouble with this strategy is that it depends on farmers' ability to segregate the two types of wheat. But farmers' experience with GM canola shows how tricky that can be. And there's virtual consensus in the scientific community that it would be costly and difficult to keep GM and non-GM wheat separate for long (Fulton et. al, 2003).

The second example of RR wheat threatening existing systems of production involved the possibility of maintaining wheat as an organic crop. Opponents of RR wheat, and especially those supporting and involved in organic production, pointed to the loss of canola as an organic crop through widespread contamination of seed stocks as evidence of the non-compatibility of RR and organic systems. Proponents, on the other hand, maintained that organic producers should bear the responsibility for keeping genetically modified material out of their crops since it was they who were reaping the price premiums of a niche market and self-imposing more strict production standards (interviews, Western Barley Growers Association; Canadian Food Inspection Agency). Here again, proponents were mobilizing the rhetoric of individual market choice to argue that organic farming was a choice for which farmers accept individual responsibility in meeting the associated standards. But farm organizations fought back. The Saskatchewan Organic Directorate (SOD), for example, attempted to launch a class-action lawsuit seeking compensation for the loss of canola as an organic crop and an injunction

against the introduction of GM wheat. In their view, the capacity to produce organically was not an individual choice, but rather the product of a longstanding movement under threat:

organic farmers ... had the ability and the tradition of being able to supply non-GMO crops and food to the public ... go[ing] back thousands of years to the dawn of agriculture. And when an upstart like the biotech companies come along and destroy that ability they should be held accountable. I think the Canadian public should be outraged that their ability to choose to eat non-GMO food is being destroyed ... we've had this tradition, this history, this ability to eat non-GMO food and it's like saying an oil company had a spill in this river, but you know the damage has been done, and so we're just going to sit back and let a certain amount of damage happen every year because ... it's just part of modern life, so suck it up (interview, Saskatchewan Organic Directorate).

The irreversibility invoked in this last quotation is, indeed, very real for farm organizations like the SOD. In consulting with Rene van Acker, an expert in plant agriculture at the University of Guelph, the same respondent explains that contamination of canola with GM material is, all things considered, permanent. In order to "decontaminate" canola all farms would need to be banned from growing the crop for a period of time. Even then it could end up being "re-contaminated" by residual plants growing in ditches, bushes or elsewhere (Interview, Saskatchewan Organic Directorate). Drawing on the expertise of scientists and the accumulated knowledge associated with widespread contamination of canola on the prairies, anti-RR wheat activists argued that the introduction of RR wheat would threaten the entire wheat industry and all wheat farmers.

The argument that gained the most traction against the championing of market choice revolved around the deliberate withholding of consumer labelling of GM products. Most importantly, for the market to perform as a just mechanism for individual consumer choice, consumers must have access to full knowledge. Thus, anti-RR wheat activists pointed time and again to Canada's rejection of mandatory labelling legislation for GMOs in order to support their claims that the fate of RR wheat should not be decided in the market:

We didn't ask for any of this ... Why do you want to use food as a vehicle for your chemicals and your drugs? ... It's not like there was a need for it ... And, more importantly, that it was introduced in the food supply without anyone knowing about it ... What the hell is that doing in my food supply and why didn't anybody tell me and more importantly why am I not allowed to choose whether or not I want to eat this? ... so it was very easy for us to mobilize consumers and the average citizen on this issue (interview, Council of Canadians).

Indeed, mandatory labelling of GM products had widespread public support. For example, in 2003 the Consumers' Association of Canada made public the results of a national poll that found that 91 percent of Canadian consumers wanted government-enforced labelling on all GM products (Wilson, 2003). This result flew in the face of the voluntary labelling standards upon which the Canadian General Standards Board had finally agreed just months before. The establishment of the voluntary standard was mired in controversy and took a full 4 years to negotiate. For example, consumer advocates such as the Consumers' Association of Canada walked away from discussions because the possibility of mandatory labelling had been foreclosed from the beginning.

At the same time as the negotiations for voluntary labelling were taking place, Liberal Member of Parliament (MP) Charles Caccia introduced a private member's bill requiring mandatory labelling in 2002. The bill gained considerable momentum in the House of Commons and looked like it might have gone to, and passed, a parliamentary vote under a newly agreed upon proposal that would have sent all private member's bills worthy of House debate to a vote. Instead, a committee of MPs decided the bill would be debated, but not voted on, in December, just a month before the new voting practice was to be implemented. The possibility of mandatory labelling was thwarted once again, and this seemed to confirm activist claims that the government was beholden to the biotech industry.

According to anti-RR wheat activists, the market mechanism could not be understood as a just arbiter of consumer preferences, especially when the information that consumers needed to register their opposition to GMOs was withheld. Two strategic moves were plainly in view that quelled any possibility for resistance. First, the mechanism for consumer agency was placed in the market rather than in the realms of public policy and social movements. Second, the possibility of opposing GMOs, even through market action, was squashed through the deliberate non-identification of GM products. It is needless to say that voluntary labelling has "failed to catch on" among food companies and retailers in Canada (Pratt, 2006).

Political subjectivities

In order to counter the discourses of consumer choice advanced by proponents of RR wheat, anti-RR wheat activists highlighted their history of collective action in their interviews with me. Participants used two main examples of their capacity to act collectively. First, they spoke of organizing around wheat in the early 1900s and second, they mobilized the recent case of an industry-wide decision to retract GM flax in the early 2000s. This section reviews these accounts of collective action and interrogates the political subjectivities associated with the two sides of the debate, i.e. "voting with your dollar" in the marketplace and collective political action to assert particular interests. I argue that the "let the

market decide” approach denies the common positionality of farmers as producers and forecloses the possibility of collective decision-making and action.

It is not a surprise that some of my participants cast back to the first half of the 20th century when many of the cooperative institutions associated with wheat were formed. In fact, talk of past rounds of collective action in agriculture usually surfaced during interviews with farmers when I asked questions about their involvement in farm politics and when I enquired into the lack of resistance around GM canola. A few participants emphasized that their families had roots in the cooperative movement or with the National Farmers Union and that they brought this inherited experience and understanding to organizing against RR wheat. The following participant thought it imperative to communicate that prairie farm history is a history of collective struggle and cooperation. Any attempt by contemporary farmers to understand themselves as individual entrepreneurial subjects is only possible by erasing the past and the institutional legacy of collective action:

[T]his shift from farmers seeing themselves as having a collective interest into one where they really adopted a mythology about how they came and developed here as sort of entrepreneurs on the frontier rather than really having a lot of institutional things in place and a requirement for cooperatives and a requirement for governments and a requirement for things like the Manitoba Grains Act and the weight of the Canadian Seeds Act and the whole construction to allow them to prosper and the Canadian Wheat Board being one of them (interview, National Farmers Union).

This quotation begins with an explicit reference to farmers as having collective interests. Here it is not just that producers have the same interests; rather, their welfare is explicitly intertwined through common structures (seed acts, marketing boards, etc.) and experiences. Such common interests are not the aggregation of interests and preferences at the individual level, as is assumed in the models of public and rational choice reviewed above. Rather, they are the result of interconnected practices where the conduct of one or many farmers affects the practice of others. For example, to the extent that a group of farmers sells their commodities below the market price, the bargaining capacity of all producers of those commodities is affected.

The above participant describes producers as being able to act collectively in order to build and secure institutional supports for their common good. Here agency can be understood as the *product* of relationships and inter-subjectivity. Subjects do not come to the public arena with fully formed preferences that can be sufficiently fulfilled through the market mechanism; rather, their preferences are forged in and through their social lives. Production is, thus, understood as fundamentally social, even if, as the participant describes above, a mythology exists about farmers as individual entrepreneurs tackling the frontier in isolation.

Certainly, the spatial arrangement of production (with individual family units producing on separate homesteads) imposed certain barriers to collectivity. But producers did labour together; they often shared equipment and worked each others' lands in teams, and they built and relied on cooperative marketing, distribution and credit structures.

A more recent and topically relevant example of collective action involved coordinated industry retraction of GM flax in the early 2000s. Interestingly, the industry's rejection of the herbicide-residue resistant GM flax (named Triffid) developed at the Crop Development Center at the University of Saskatchewan received very little press or social movement activity. Instead, deregistration occurred at the request of the flax industry itself through the influence of the Saskatchewan Flax Development Commission, the Flax Council of Canada and several farm groups. On one hand, some of the story of GM flax mirrors that of RR wheat. Most importantly for both cases (and for GM crops more broadly (see, for example, Mulvaney, 2008), the widespread propagation of GM crops threatened export markets – especially those in Europe which constituted roughly 60 percent of Canadian flax exports (Warick, 2001). When European buyers announced, in the summer of 2000, that they would not be buying GM flax, farmers worked through their industry groups to come to the decision that the whole industry should abandon Triffid flax. Moreover, as the following participant explains, the particular variety of modified flax did not provide great agronomic benefits to growers (which was also a central concern with RR wheat):

[Th]ere's an inertia and philosophy that well the market should decide all. And this sort of rightist philosophical inertia, as I call it, caused people to resist. First of all, that particular genetically modified flax was resistant to a herbicide that was largely never used, so it didn't really serve much of a purpose per se. ... It didn't offer any yield advantage, it didn't offer anything other than it was GM flax. When I was pushing the argument to push back through various methods, it had to be done on the purely economic market argument (interview, National Farmers Union).

On the other hand, the story of GM flax played out very differently from that of RR wheat. Unlike RR wheat, GM flax had already successfully emerged from the regulatory process (it was given approval by the CFIA in 1996) and was being reproduced for commercial sale by seed growers all over the prairies when it was deregistered. In fact, 200,000 bushels of seed worth \$2.5 million had to be rounded up and crushed in order to destroy the possibility of the seed reproducing and contaminating the environment (Warick, 2001). Furthermore, farm and industry organizations were opposing a crop that was developed by a public institution, rather than a private company like Monsanto. Indeed, once the decision had been made amongst the producer organizations that Triffid flax had to be abandoned, the

industry was able to put pressure on the developer to voluntarily deregister the variety. Given that the Crop Development Centre received producer check-offs for flax research from the Flax Development Commission, and understood itself as serving farmers, the Centre complied with the industry's wishes. Participants felt that the Crop Development Center acted reasonably responsibly with regard to the industry's non-acceptance:

Once the university and the breeder recognized the potential harm to the industry there was no question. I mean it had gotten to being released for multiplication within a seed company, and they too were responsible. They had invested a lot of dollars into taking that product to commercialization. At the end of the day, while they weren't initially excited about doing it, they were certainly responsible. At the end of the day they did what was best for the industry (interview, Canola Council of Canada).

In both of the above quotations, the participants use the case of coordinated industry action to work against the logic of market choice. This is most obvious in the quotation from the representative of the NFU since he frames his discussion of opposition to GM flax as the practice of resistance against the "philosophy" that says "the markets should decide all". Although this participant emphasizes the limited discursive terrain upon which an articulated resistance had to be constructed (it had to be done "on the purely economic argument") he underscores a negotiated and inter-subjective notion of collectivity. Similarly, in the last quotation the participant identifies a coherent unity ("the industry"), but this is a unity that is comprised of differently positioned and interested actors, including seed companies and farmers. The industry is clearly not the aggregation of individual fully formed interests and preferences. Instead, it is a site of struggle and contention that is always in-the-making. In order for GM flax to have been de-registered, farm groups had to make a case and represent their arguments as the economic interests of the industry. In other words, they had to agree and act on a "common good".

The practice of political subjectivity in both examples of collective action described above is social: it is oriented around the possibility of action that supports a negotiated, yet fraught, common good. This is radically different from the political subjectivity associated with consumer choice that posits agency as an individual calculation of costs and benefits. Consumer choice supports a notion of subjectivity that is fundamentally asocial in the sense that what is best for the sum of individuals is best for society: there is no need for a public sphere, for negotiation, or for a conception of the common good. By advocating that the appropriate mechanism for registering opposition to RR wheat is to 'vote with your buck' in the market, RR wheat proponents effectively denied the common positionality of farmers as producers of food. Importantly, in this understanding of

agency only consumers can have their say, and there exists no possibility for a politics of production. While the farmer understands him/herself first and foremost as a producer, entering the market in order to buy the necessary factors of production, seed and fertilizer companies understand him/her chiefly as a consumer. In *Grundrisse*, Marx outlined exactly this process with regard to the industrial labourer *vis à vis* the capitalist:

What precisely distinguishes capital from the master-servant relation is that the *worker* confronts him as consumer and possessor of exchange values, and that in the form of the *possessor of money*, in the form of money he becomes a simple centre of circulation – one of its infinitely many centres, in which his specificity as worker is extinguished (Marx, 1973, 421, emphasis in original).

While the relationship of input corporations to farmers is not one of capitalist to labourer the implications in the two cases are similar. For biotech lobby groups, corporations like Monsanto, and other RR wheat supporters farmers are simply “centres of circulation”. They have agency only in so much as they make free choices in the market. Indeed, their specificity as producers/workers is extinguished.

Given Marx’ insightful observations in the 19th century there seems to be nothing new about the discourse of individual market choice advocated by proponents of RR wheat. However, those studying neoliberalism have shown that the imperative of market choice increasingly pervades more aspects of social life and has become central to the broader concept of freedom. That RR wheat supporters adopted the discourse of farmers as consumers (a very specific positionality of farmers *vis à vis* input suppliers) reflects the incursion of market choice into more and more aspects of social and political life. The capacity to choose through market action was represented as the practice of freedom itself. Here individuals understand themselves as entrepreneurs of the self, obliged to navigate through, and demand, an ongoing series of choices that make them who they are. As the quotation from the NFU representative above demonstrates, even past forms of commonality get reconceptualised through this lens. Farmers become individual entrepreneurs managing market choices in isolation. Their subjectivity as collective actors and producers is extinguished in both the past and the present.

Conclusion

This paper has problematised the discourse of consumer choice that was front and centre in my interviews with proponents of RR wheat. I have shown how proponents emphasized the market mechanism as a more just method for deciding the fate of RR wheat than political movements or governments. This discourse was bolstered by claims that markets fostered technological progress and already encompassed the right incentives to ensure food and environmental safety. In their

opposition to the “let the markets decide” approach, opponents of RR wheat highlighted the lack of choice that was offered in the market, the potential and real harm of RR crops to already existing production systems and the refusal of government regulators to enforce the identification of GM crops through labelling. For these reasons, they argued, the market was not offering the freedom of choice that its proponents celebrated.

In the last section of this paper I have discussed the political subjectivities associated with the concept of individual consumer choice and contrasted these with notions of collective action and common good drawn from farmers’ historical and contemporary experiences. I have argued that farmers’ common positionality as producers of food is erased through the market mechanism, which posits them as individual consumers and “centres of circulation”. As the imperative of market choice expands to more and more aspects of social and political life under neoliberal governance it will be important to keep collective political subjectivities alive through ongoing struggle.

Producers have a wide range of examples of collectivity to help them think beyond neoliberal subjectivity. They have both historical and contemporary examples ranging from quite radical to quite mainstream, including the type of coordinated industry action that forced the deregistration of GM flax. Looking back at the history of consumer activism, it is clear that non-market forms of agency do exist for consumers as well. The notion of “voting with your dollar” in the marketplace similarly strips consumers of a notion of commonality or collectivity. Consumers can and have worked collectively through actions such as boycotts and protests, through consumer cooperatives, and as allies of producers. Remembering that collective forms of action have and do exist might enable more creative ways of thinking beyond neoliberal subjectivity for both producers and consumers.

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