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The influence of gender ideologies on individual knowledge construction in the face of neoliberalism: the case of mommy bloggers involved in the GMO labeling movement

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The influence of gender ideologies on individual knowledge construction in the face of neoliberalism: The case of mommy bloggers involved in the GMO labeling movement

by

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ABSTRACT

The genetically modified organism (GMO) labeling movement in the US has increased in intensity nearly twenty years after GMOs were introduced to supermarkets in 1994 and large anti-GMO SMOs formed in the 1990s. Social movement organizations have mobilized at the national, state, local, and grassroots levels with participation in the movement taking different forms. One of the most prominent arguments of the movement is that people should have a right to choose what they purchase. This argument is based on the idea that people should be able to make informed choices about what they are feeding their families.

As the GMO labeling movement has gained momentum nationwide, online participation in the movement has increased and mommy bloggers have become involved in the movement through using their blogs to advocate in favor of mandatory GMO labeling. Mommy bloggers express their arguments in favor of labeling in the context of motherhood, being a good mother, and the health and safety of their families.

I analyzed interviews with 18 informants involved in the GMO labeling movement and conducted participant observation of two GMO labeling meetings to understand what they view as the major goals and concerns of the movement. I then compare the analysis of the interviews and participant observation to a qualitative content analysis of 15 “mommy blogs” to understand whether these mommy bloggers’ arguments in favor of GMO labeling align with the arguments made by formal organizations in the movement. I draw on feminist standpoint theories and political economy critiques of food movements as I question what the alignment of these arguments suggests about the power of gender ideologies and structures in comparison to the power of neoliberal ideologies in individual knowledge construction.

CHAPTER 1: INTRODUCTION

Background of the Study

Whether genetically modified crops are beneficial or detrimental to agricultural practices, the environment, food safety, human health, and food security is contested worldwide. Various social movements, high profile activist campaigns, and policies have resulted from and contributed to these debates and disagreements about the impacts and implications of the use of genetically modified crops in agriculture. The GMO labeling movement in the US, for example, has increased in intensity nearly twenty years after GMOs were introduced to supermarkets in 1994 and large anti-GMO social movement organizations (SMO) formed in the 1990s. GMO labeling activists argue that consumers have a right to know what they are buying and should be able to choose whether they purchase foods with GM ingredients (Caswell 2000; Klintman 2002; Sand 2006). Although anti-GMO activists have been advocating for a stricter regulatory process for GMO approval in the US since the 1990s, the progress has been slow compared to a similar movement in Europe that led to a precautionary regulatory system regarding the approval of GMOs and the labeling of GM foods rather quickly (Klintman 2002; Sand 2006; Schurman and Munro 2006; Wohlers 2010).

Similar to most food movements in the US, white middle-class men dominate the leadership positions of the GMO labeling movement (Allen and Sachs 2013). Meanwhile, the responsibility of family health and safety falls disproportionately on women, and women are more responsible than men for purchasing and preparing food. The GMO labeling movement also has a high level of online participation through social media platforms and blogs. Online participation includes sharing information about the movement, online petitions, and virtual groups that support the movement's goals. The dominant argument made by the GMO labeling

movement focuses on increased choice at the market level and the creation of niche markets as a way to advocate change in the food system (Roff 2007). This includes advocacy for change by purchasing and avoiding certain types of food, which is known as “voting with your fork” or “boycotting.” These solutions are rooted in neoliberal ideology and reinforce rather than challenge the neoliberalized system (Roff 2007). Neoliberal ideologies support two different frames of individual choice. The first is an economic view based on values of competition, self-interest, and the decentralization of the government (Reich 2014; Steger and Roy 2010). The second is that individuals should make informed decisions to work hard, behave morally, and avoid risk (Murphy 2000; Reich 2014). Advocacy for choice fails to recognize that the ability to make choices about food is a privilege that not all people have, and it absolves the state and corporations of responsibility regarding the food system (Roff 2007).

Statement of the Problem

Women hold fewer leadership positions in formal organizations that participate in the GMO labeling movement in the US. Past research shows that middle-class white men typically dominate food movements even though women are disproportionately responsible for food purchasing and preparation (Allen and Sachs 2013). Research on local food movements has shown that activists have advocated for local markets in neighborhoods where locally grown, fresh food is not available (Allen 2010). The activists were generally white and middle-class people advocating for predominantly working class people of color, and in at least one case the activists were advocating for something that did not match what the people living in the communities were interested in (Allen 2010). In the case of the GMO labeling movement, activists advocate change through increased choices at the market level and the creation of niche markets.

Activism has been neoliberalized in the GMO labeling movement in three ways. First, current activism has a strong market focus, which suggests that change comes from the market rather than the legislature (Roff 2007). Second, activism shows a commitment to the individual rights of the consumer through freedom of choice and right to know arguments (Roff 2007). Third, the movement has focused more efforts on individual choice than changes to the regulatory system, which shows a distrust of the state to adequately govern the food system (Roff 2007).

The GMO labeling movement, which can be classified as a new social movement (Buechler 1995), is characterized by a high level of unorganized, less formal involvement using social media platforms and blogs in addition to the participation of more formal organizations. Specifically, mommy bloggers have taken interest in the issue of GMO labeling. Since women are generally more responsible than men for purchasing and preparing food, mommy bloggers offer a perspective that reflects this responsibility. Drawing on feminist standpoint theories, I would argue that mommy bloggers should have a point of view that differs from the dominant point of view of the GMO labeling movement because the mommy bloggers' points of view would be shaped by their unique experiences as women and mothers. In order to understand mommy bloggers points of view regarding GMO labeling, I conducted a qualitative content analysis of mommy blogs. I also conducted interviews and participant observation of movement leaders to understand the dominant perspective of the GMO labeling movement.

Purpose of the Study

The purpose of this qualitative study is to understand how influential gender ideologies are on individual knowledge construction when neoliberal ideologies are present for mommy bloggers involved in the GMO labeling movement. I predicted that greater involvement from

women in the movement would result in different issues being brought to light based on my understanding of feminist standpoint theories. As an epistemology, feminist standpoint theories can address how gender situates a person's knowledge. Women are able to understand the world in a different way and "challenge the male bias of existing perspectives" (Narayan 1989:256) since a person's history, beliefs, and experiences influence their individual knowledge construction. This would suggest that mommy bloggers would have a differing standpoint from the movement's dominant perspective because their experiences as women influence their worldviews. This study shows that, in the case of mommy bloggers involved in the GMO labeling movement, neoliberal ideologies have more influence than gender ideologies on individual knowledge construction.

Research Questions

The questions I will be answering in this thesis are:

- Do mommy bloggers' arguments in favor of GMO labeling align with the arguments made by formal organizations in the movement?
- What does the alignment of these arguments suggest about the power of gender ideologies and structures in comparison to the power of neoliberal ideologies in individual knowledge construction?

Theoretical Framework

I use two competing theoretical perspectives to analyze the data collected from interviews, participant observation, and a qualitative content analysis of mommy blogs. Feminist standpoint theories suggest that women's perspectives are unique in that they are shaped by their lived experiences. However, food movements generally, and the GMO labeling movement specifically, are examples of neoliberalized food movements. Rather than challenging

neoliberalism, the GMO labeling movement advocates solutions that reinforce a neoliberal system (Allen 2004; Roff 2007). I draw on feminist standpoint theories and political economy critiques of food movements as I question how much gender structures and ideologies matter when neoliberal ideologies are dominant within the movement.

Significance of the Study

This study contributes to the field of sociology through providing an understanding of how gender ideologies and structures are less powerful than neoliberal ideologies on individual knowledge construction. Research on food movements shows that leadership is dominated by middle-class white men while women are primarily involved in grassroots efforts. In the case of the GMO labeling movement, this study shows that in addition to involvement in grassroots activism, women are also involved in keyboard activism through mommy blogs and blogging communities. Mommy bloggers are able to express their concerns about GMOs and arguments for GMO labeling by engaging in this less formal activism. Drawing on feminist standpoint theories, I would argue that the perspectives women offer should differ from the dominant perspectives because they are shaped by their experiences as women.

Through analyzing the primary arguments of formal movement leaders and the primary arguments of mommy blogs, this study shows that mommy bloggers' perspectives and the dominant perspectives of the GMO labeling movement are very similar. Their arguments focus primarily on increased choice at the market level and the creation of niche markets so that people can make choices about what they are purchasing. This study shows that the mommy bloggers' arguments are rooted in neoliberal ideology, just as the dominant perspective in the GMO labeling movement is. Gender ideologies are less influential than neoliberal ideologies in shaping the perspectives of the mommy bloggers.

Definition of Terms

The following terms are defined as they are used in this study:

Alternative food system: food systems that are not characterized as conventional. This includes local food systems, fair trade, organic food systems, and non-GMO food systems, among others.

Corporate agriculture: a form of agriculture where companies own farms as well as influence the agricultural system.

Countermovement: NGOs, industry leaders, and corporations that advocate against mandatory labeling of GMOs. These organizations are leading a movement against mandatory labeling in response to the arguments and actions of the formal GMO labeling movement.

Experts: those working in a field dealing with GMOs. This can include scientists, policy makers, and others employed by organizations that focus on concerns pertaining to GMOs, the environment, or the food system.

Genetically engineered (GE): the deliberate and controlled manipulation of genes within an organism.

Genetically modified organism (GMO): a common signification for genetically engineered (GE) foods. Although the terms do not technically have the same meaning, they will be used interchangeably in this study to show the growing movement against corporate and industrial agriculture and the use of genetic engineering within agriculture (Bain and Dandachi 2014; Roff 2007).

Glyphosate: an herbicide. This herbicide is used with glyphosate-resistant forms of genetically modified seeds. Glyphosate is also referred to as RoundUp, which is the brand produced by Monsanto.

Industrial agriculture: a form of agriculture that refers to the industrialized production of crops, livestock, or poultry. Industrial agriculture is marked by its use of machines and technology. This method of agriculture generally produces crops and meats for sale at supermarkets.

Intensive mothering: a form of parenting where mothers are the primary caregiver. Extensive time, energy, and resources should be spent on raising children because children are of great value, and mothers should be self-sacrificing as nothing should come before the wellbeing of the children (Hays 1996).

Keyboard activism: a form of online activism characterized by the ability to support and advocate for a cause through social media, blogging, and online petitions.

Mommy blog: a blog that self-defines as being a “mommy blog.” Among other topics, these blogs focus on lifestyle, health, wellbeing, and issues relevant to raising children.

Monoculture: a form of agriculture where one crop is planted season after season.

Neoliberalism: an economic system rooted in entrepreneurial values such as competitiveness, self-interest, and decentralization (Steger and Roy 2010). Focus is shifted from government control of services and placed in the private sector.

Niche market: a subset of the market that focuses on a very specific set of market needs such as organic or non-GMO, for example.

Professional activist: a person who is involved in a formal SMO.

Superweeds: weeds that have evolved to resist herbicides. Opponents of GMOs use the term most often. These weeds are generally described as large in size and difficult to manage

Overview of Chapters

Chapter 2 reviews literature on food movements, the history and emergence of the GMO labeling movement, critiques of alternative food movements as being neoliberalized, inequalities within food movements, women's participation in food movements, neoliberal mothering and the privilege of choice, and literature on feminist standpoint theory.

In Chapter 3 I discuss my data collection and analysis procedures, validity and reliability, and the limitations of this study. I used interviews, participant observation, and content analysis to gain an understanding of the dominant arguments of the GMO labeling movement and to understand how this compares to the arguments that mommy bloggers give for not wanting to purchase genetically modified foods.

I present the results of the study in Chapter 4. I compare the major arguments made by the GMO labeling movement leaders to the arguments made by mommy bloggers. The arguments made by the leaders of the GMO labeling movement and the mommy bloggers were very similar, with the exception of the mommy bloggers' discussions of good mothering as a reason to support GMO labeling. Each of the arguments, including the mommy bloggers' good mothering argument, was shaped by neoliberal ideologies. The arguments focus on advocacy for more choice at the market level and the creation of niche markets where certain products can be purchased for a price premium. The move toward increased individual choice and strong market focus, and away from regulatory oversight at the state level, shows how activism has been neoliberalized (Roff 2007).

In the final chapter, I provide an overview of my key findings, the implications of this research, and my recommendations for future research. I show that the mommy bloggers and the leaders of formal movement organizations had very similar arguments. I then explain that the

alignment of these arguments suggests that neoliberal ideologies are more powerful than gender ideologies and structures in individual knowledge construction in the case of mommy bloggers involved in the GMO labeling movement.

CHAPTER 2: LITERATURE REVIEW

Alternative food movements have been on the rise in the United States and worldwide since the 1990s as people increasingly challenge corporate control of food and the conventional food system. Although the various food movements are working toward different goals, they are all working to change or challenge the food system in some way (Allen and Sachs 2013; Guthman 2008a). Activists are motivated by different reasons to become involved in movements, and these motivations contribute to the type of food movement that people become involved in (Pollan 2010). The issues that food activists have rallied around include the environment, animal welfare, health concerns, human rights, and awareness of inequality (Alkon and Agyeman 2011; Pollan 2010). Additional but related food movements include the organics movement, the local food movement, the food justice movement, and the anti-GMO movement.

Even though these food movements have different goals, there is an overarching vision that exists across each specific movement. This vision is for consumers to turn from buying products from large commercial establishments to buying less-processed products from smaller farms (Alkon and Agyeman 2011). These movements use slogans like “vote with your fork” to urge people to change their food consumption practices to help support social and environmental change and live healthier lives (Alkon and Agyeman 2011).

This chapter reviews literature on social movements, food movements, the history and emergence of the GMO labeling movement, critiques of alternative food movements as being neoliberalized, inequalities within food movements, women’s participation in food movements, neoliberal mothering and the privilege of choice, and literature on feminist standpoint theory.

Social Movements

Social movements are collective and sustained efforts that challenge existing or potential laws, policies, norms, or authorities, making use of extra-institutional and institutional political tactics (Meyers 2007). Social movements are generally grouped into three categories: reform movements, revolutionary movements, and reactionary movements. Reform movements seek to create change within existing structures. Revolutionary movements seek fundamental changes in the social order. Reactionary movements are conservative responses to social, political, or economic changes and are designed to recreate past conditions.

The following theories are used to explain the emergence of social movements: collective behavior theory, resource mobilization, relative deprivation, social networks, and the political process model. Relative deprivation, as discussed by Blumberg (2009) in relation to the civil rights movement, occurs when people see their existing social conditions as oppressive and when conditions allow for hope for future improvement. Relative deprivation does not always happen during the worst of times, but rather occurs when people feel that their situation is unjust or realize that there is a significant difference between the realities of their lives and their expectations for their lives (Blumberg 2009). Prior to the civil rights movement, there were many who viewed their situations as unjust and oppressive, but the social climate was not ideal for a movement to take shape. Certain events made the transition from accommodation to protest possible, including: a migration of blacks from the South and a transformation to a predominantly urban group, white violence against black urban newcomers, both world wars and the Great Depression, years of litigation ending in important legal victories, the rise of leaders who encouraged protest and were able to mobilize potential participants, and a change in international climate to confront American racism (Blumberg 2009:15). After these events

occurred, both discontent for the current conditions and a climate that allowed hope for the future were present.

Social networks were very important in both the women's movement and the gay rights movement. In social network theories preexisting networks and ties between friends, neighbors, relatives, or coworkers are important in building a social movement. Social networks are very important in recruiting because a person's ideas and attitudes are typically shared and influenced by one's social network (Freeman 2009). In the women's movement two branches existed, typically known as reform and radical, each made up of women with different interests and different networks. The reform group was established after women from commissions from the 50 different states came together to communicate their concern and awareness over women's issues. A network of people with similar issues was formed from this (Freeman 2009). Similarly, the radical group was formed after five groups in five different cities formed simultaneously but independently because of communications through social networks. Subsequently there was an organizing effort to join the spontaneous groups into a movement (Freeman 2009).

The Iranian Revolution is an example of the political process model to a degree. In the political process model people and groups that want to organize and form a movement do so when political or economic opportunities are right. This generally means a change in the State that people are aware of. Kurzman (2009) critiques the model because he believes that the perception is in some ways more important than the reality when dealing with these social movements. The balance of forces had shifted because of a changing opposition movement rather than a changing state structure. People believed that the government was weakening, and the revolution movement began to gain support and power because of that perception (Kurzman 2009). The military breakdown was caused by the movement and the perception that the

opposition was so strong rather than a necessary precursor for the movement to start. In these ways the perception of the structural shift was more important than the reality of the shift, according to Kurzman (2009).

One key difference between structural and cultural approaches to explaining the emergence of social movements is the focus of each. Structural approaches focus on groups and movements where people are systemically excluded, as was the case of the civil rights movement and women's movement. In each case equal rights were not given to blacks and women, respectively. Some of the exclusions included voting and land ownership rights (Blumberg 2009; Freeman 2009). On the other hand, cultural approaches focus on groups that already have citizenship rights. Cultural approaches work on changing consciousness and culture, ideology, beliefs, and values. The GMO labeling movement's emergence can be explained using a cultural approach. The movement advocates changes to and awareness of the food system based on a certain set of beliefs and values about food safety and production, the environment, and regulation.

Who becomes involved in movements and why

McAdam (2009) explains three factors that influence the likelihood that people will become involved in a social movement are biographical availability, attitudes, and values, and social links to the project. Biographical availability is affected by constraints that a person has in daily life, such as a family to take care of or a job to attend. Although there are some people who may be interested in or sympathetic to the cause, they do not have the biographical availability to commit. On the other hand, there are also people who will make themselves biographically available by reworking their constraints and changing prior commitments if they are particularly committed to the cause (McAdam 2009). The attitudes and values of a person also influence the

likeliness that he or she will become involved in a social movement. If someone's values are the reason that they find a certain situation unjust, then they will be more likely to work toward changing it than if they were trying to rebel against their parents. For example, those who were involved in the Freedom Summer, a campaign to register African-American voters in Mississippi, were generally taught values at home that were compatible with the social movement (McAdam 2009). Although biographical availability, attitudes, and values are influential in a person's decision to join a social movement, social ties play a large role in joining and staying with a particular movement. People are more likely to join and follow through with commitments if they feel a social tie to the movement, such as a friend who they might disappoint if they were to quit (McAdam 2009).

Framing is the presentation of issues so that they fit or resonate with the beliefs, feelings and desires of potential recruits. Consciousness-raising, collective empowerment, polarization, and collective decision-making are all ways that social movements are framed in order to recruit members. Consciousness-raising is done in a safe setting, away from persons in power as a way for people to raise concerns, become aware of common problems, and begin to question the legitimacy of institutions that deny them the means for resolving those problems (Hirsch 2009). The radical feminist movement used consciousness-raising in a feminist framework using consciousness-raising groups, political protests, and political orientation sessions (Whittier 2009). Worldviews and emotions make people feel closer to an issue or cause, and can cause people to want to become involved in a movement. Framing should use the worldviews and play on the emotions of a target audience of potential recruits. In respect to the anti-GMO movement, this would mean framing GMOs as being problematic in ways that align with the target-

audience's feelings and values. In the case of mommy bloggers, this might mean that GMOs are framed as being unsafe or unhealthy to target their desire to keep their families safe.

Movements do various things to sustain the commitment of their participants. Solidarity is one tactic that SMOs use to sustain the commitment of participants because if they continuously feel as though they are members of the group they are more likely to remain committed to the group and the movement (Whittier 2009). Leading by example is another way that a movement can draw further commitment from their members. When members see self-sacrifice from movement leaders, they are more willing to commit to the goals of the movement as well (Hirsch 2009). Involving members in decision-making processes is also a way in which people feel more committed to their movements. Klandermans (2009) explains that in unions where members are able to participate in decision-making there is greater member commitment.

New social movements theory

New social movement theories focus on movement culture, identity, and relations to culture, ideology, and politics (Buechler 1995). The theory analyzes movements that are primarily social or cultural and secondarily political (Buechler 1995). This means that the issues are generally about lifestyle changes rather than political changes (Buechler 1995). Food movements tend to be more about lifestyle changes rather than systemic changes that would encourage some sort of revolution. Since these movements focus on lifestyle changes rather than major systemic changes, organizers and participants tend to be of the "new middle class" rather than of the lower or working classes (Buechler 1995). New social movements tend to be more focused on grassroots level involvement and are relatively disorganized (Buechler 1995). Since food movements are more focused on lifestyle changes rather than structural or political changes,

this theory assists in analyzing the types of people that are involved in the GMO labeling movement at each level and how the movement is organized or not organized.

Food Movements

Various other social movements have sought to change the food system and the ways that people purchase and consume foods. Movements, such as the local food movement, the organic food movement, and the food justice movement have encouraged consumers to “boycott” or “vote with their forks” about what they want to buy (Alkon and Agyeman 2011; Allen 2010). These movements advocate change and increased choice for consumers through the addition of specialty markets, such as organic foods sections and farmers’ markets. Through purchasing products from the specialty or niche markets, consumers are showing (voting on) what types of products they prefer to purchase. These tactics are critiqued as being neoliberal in nature because emphasis on individual rationality and responsibility is increased while state-targeted opposition is diminished (Allen 2004; Fairbairn 2012; Roff 2007). Organizations such as the Organic Consumers Association (OCA), Consumers Union, and Food and Water Watch also implicitly promote certain ideals of health, social, and environmental concerns. For example, organic foods are touted as being better for the health of people and the environment. The “Buy Local” movement encourages people to purchase their food from local farmers rather than large grocers, stating that a benefit is knowing where your food came from and helping the businesses of those around you (Allen 2010).

Visions of food movements that involve niche markets and increased choice appear to be beneficial to consumers with the privilege and means to make choices about food, however the focus on individual choice places responsibility for the food system on the individual consumer while the government is less responsible (Roff 2007). Previous research shows that activists in

these movements are predominantly white and middle-class (Allen 2010). This presents a problem because the interests of those involved in the movement may not accurately reflect the desires of those they are trying to help. Additionally, in many social movements, men primarily hold the leadership positions while women hold support positions (Allen and Sachs 2013). This means that the leadership of many alternative food movements is comprised of those with the most power: white, middle-class men. Since people with similar backgrounds, beliefs, and values come together to make decisions about what should be changed in the food system, the decisions reflect the privilege that these people have (Alkon and Agyeman 2011). In other words, a select group of people is making choices that will impact a much larger group of people whose voices are not heard.

The Rise of the GMO Labeling Movement

Though the debate surrounding the regulation of GMOs in the United States began with the introduction of GM foods in 1994, interest in the GMO labeling movement has increased since the early 2000s (Wohlers 2010). Opponents and proponents of GMO labeling have raised concerns regarding whether GM foods should be regulated. American consumers desire some sort of regulation or labeling of GMOs, but United States federal policy does not reflect this desire (Caswell 2000; Grobe and Raab 2004; Klintman 2002; Radas et al. 2008; Sand 2006; Teisl et al. 2003; Wohlers 2010). Proponents of GM labeling argue that consumers have a right to know what they are buying and consumers should be able to choose whether they purchase foods that contain GMOs (Caswell 2000; Klintman 2002; Sand 2006). Although anti-GMO activists have been working toward regulation that would require foods containing GE ingredients to be labeled in the US since the 1990s, little progress has been made. However, their European counterparts gained support and enacted policy to regulate GM foods as early as 1996, with

required labeling of foods containing at least 1% GM product put in place in 2000 (Klintman 2002; Sand 2006; Wohlers 2010).

Risk assessment was implemented as the US regulatory system in the 1980's when biotechnology was determined necessary for the success of US agriculture (Levidow, Murphy, and Carr 2007). In its 1986 *Coordinated Framework for Regulation of Biotechnology*, the Food and Drug Administration (FDA) explained that genetically engineered (GE) foods would not be regulated differently than conventionally produced foods since genetically engineered products do not pose an additional risk (Wholers 2010). This was reiterated in the 1992 policy, *Foods Derived from Plant Varieties* (Wholers 2010). The FDA still holds the position that GE foods do not pose a threat to human health or environmental safety because GE plants should produce products that are "substantially similar" to the products from unmodified plants (Levidow et. al. 2007; Wholers 2010). For this reason, the official FDA stance on GMO labeling is that GM foods do not need to be labeled, but foods that have not been genetically modified can be labeled as such (Wholers 2010).

The difference between ease of policy implementation in the EU and the US has to do, in part, with their respective regulatory systems. The regulatory system in the US is based on risk assessment (Jasanoff 2000; Levidow et. al. 2007). Risk is only defined in biophysical terms in the case of the US regulatory system. This means that the assessment does not take into account social, economic, or global environmental or cultural influences, and there is an underlying assumption that science is not subject to external impacts (Jasanoff 2000). On the other hand, the European Union uses a precautionary principle framework to guide their decision-making process regarding GMO labeling (Jasanoff 2000; Sand; 2006; Wholers 2010). This means that since there were still many things that were unknown about this new form of biotechnology, such

as long-term environmental or health impacts, a regulation was put into place even though there were no proven health or environmental harms from GM products at the time (Jasanoff 2000; Wholers 2010).

Critiques of alternative food movements

Alternative food movements in the US have been critiqued for not posing enough challenge to the status quo (Fairbairn 2012). These movements, which work within the existing market-based economic system, face two primary critiques in regards to their “transformative potential” (Fairbairn 2012). The first major critique is that alternative food movements focus too much on providing neoliberal answers to calls for changes to the food system (Fairbairn 2012; Roff 2007; Sachs 2013). Rather than formally challenging the current economic and food systems, alternative food movements have worked to create more purchasing options for the “conscientious consumer” which may unintentionally reinforce neoliberal ideals through emphasis on personal choice and responsibility (Allen and Guthman 2006; Fairbairn 2012). Roff (2007) argues that the creation of new markets, such as non-GMO, further fragment the American foodscape, which reinforces the current food production system. The second major critique is that the movements fail to combat existing social injustice, such as the lack of access to food in low-income areas (Fairbairn 2012). Because alternative food movements are seldom critical of the power inequalities that divide the food system along class, race, and gender lines, it is possible to reproduce some of the existing inequalities through the work of the movement (Allen 2004; Fairbairn 2012). Furthermore, those who are unable to participate in purchasing from alternative markets are excluded from “voting” with their dollar (Roff 2007).

Roff (2007) highlights three “moments of neoliberalization” in the GMO labeling movement’s activism. First, current activism has a strong market focus. Although there is some

sort of attention paid to the state by each of the SMOs in her study, the majority of attention is on urging consumers to vote with their dollar, suggesting that actual change comes from the market, not the government (Roff 2007). Second, the movement is committed to the rights of the individual consumer (Roff 2007). This is evident in the freedom of choice and right to know arguments. Third, the movement has shown a distrust of the state to adequately regulate the food system (Roff 2007). The movement has lost faith in the state as a potential ally, and the efforts that focus on individual choice outnumber the efforts to enforce and change governance (Roff 2007).

The Intersectional Nature of Oppression in Food Movements

Many food movements, such as the organic food movement and local food movements, unintentionally favor the elite who are able to pay higher prices for the products they want (Allen 2010; DuPuis and Goodman 2005; Guthman 2003). Organic and local foods are typically offered at a price premium. In pushing for a large organic or local market, and arguing that there are benefits to buying local or buying organic, activists are failing to acknowledge that these foods are not realistically accessible to all people (Alkon and Agyeman 2011). Farmers' markets, local food systems, and CSAs are disproportionately accessible in affluent neighborhoods (Allen 2010; DuPuis and Goodman 2005; Johnston 2008; Sbicca 2012). Additionally, sometimes food movement actors do not take into account that being able to make changes to one's environment, such as creating a local food system, is a privilege (Alkon and Agyeman 2011; Guthman 2008a).

Activism within food movements generally reflects white desires (Alkon and Agyeman 2011; Guthman 2008a), as the activists are often white, middle class people (Alkon and Agyeman 2011). This is, in part, because being an activist and having one's voice heard is a privilege that not all people have access to. Doing activist work requires expendable time and

money. Because of this, the movements may not recognize that the desires of whites are not the desires of all people. For example, alternative food movements are “color-blind” in nature (Guthman 2008b). These movements presume normativity of white desires and fail to acknowledge that the interests of activists may not reflect the interests of those who the activists are trying to “help” (Guthman 2008a, Slocum 2006). Additionally, communities of color often lack access to the types of healthy food being promoted by food movements because those healthy foods are often more expensive in less affluent neighborhoods (Alkon and Agyeman 2011). This is problematic because accessibility issues are not often addressed in the “vote with your fork” mentality. People with similar backgrounds and values are coming together as activists in this movement to make similar conclusions about what aspects of the food system should change (Alkon and Agyeman 2011).

Women’s Participation in Food Movements

In most societies, women are responsible for the majority of food-related work, but they control few resources and do not hold much decision-making power in the food industry or in forming food policy (Allen and Sachs 2013). Feminist food scholarship focuses on the responsibility of women to feed others (Allen and Sachs 2013). Whether this work gives women power in the family or maintains their subordinate positions is contested (Allen and Sachs 2013). Those that argue that women are in positions of power in the family claim that the responsibility of doing the majority of food-related work allows women to act as gatekeepers to the food industry (Allen and Sachs 2013).

Women participate in food movements in several ways. They are producers, consumers, and activists within social movements. Past studies have shown that women and men have different reasons and different tasks in food movements (Allen and Sachs 2013; DeLind and

Ferguson 1999). Women are more frequently involved in support positions while men disproportionately hold positions of leadership within large, national organizations (Allen and Sachs 2013; Cable 1992). Although men hold leadership positions, women are involved in many events and contribute to the success of the group in social movements, and women are more involved in the leadership of grassroots movements at the local level (Cable 1992). In some movements, women's participation seems contradictory. For example, advocacy for farmers' markets or CSAs can actually create a larger burden for women on farms because they have to do more labor for farmers' markets and CSAs to be successful (Allen 1999; Allen and Sachs 2013). Allen and Sachs (2013) suggest that future analysis of women's participation in the food system should be examined using feminist standpoint theory, described below. This allows for a better understanding of the possibilities of changing gender relations in the food system. When activists try to promote more farmers' markets and CSAs without taking into consideration the points of view of the women who are impacted, they are not necessarily acting in the best interest of the women involved (Allen 1999; Allen and Sachs 2013). Through examining women's participation first, the discussion surrounding how the food system operates might shift to take these things into consideration.

Neoliberal Mothering and the Privilege of Choice

Neoliberal ideologies support two different frames of individual choice. The first is an economic view based on values of competition, self-interest, and the decentralization of the government (Reich 2014; Steger and Roy 2010). The second is that individuals should make informed decisions to work hard, behave morally, and avoid risk (Murphy 2000; Reich 2014). We can see these neoliberal ideologies within intensive mothering practices and as some women

make choices to opt-out of the workforce in favor of engaging in motherhood projects (Reich 2014).

Women are responsible for understanding health, necessities, and risks in regards to their children, and healthy children represent good mothering whereas mother-blame occurs when children are ill (Murphy 2000; Reich 2014). Mothers who participate in intensive mothering feel that this form of mothering is an alternative and superior model in which they are able to more closely control risks (Reich 2014). These mothers try to control risks that their children might come in contact with through regulating the types of food that they consume and the social networks that they interact with (Reich 2014). This form of mothering is “marked most intensely by those in the middle and upper class who have the material and cultural resources to invest most heavily in their children’s development,” (Reich 2014:681). These mothers see themselves as experts on their children and believe that they are better able than government or health professionals to understand the risks that their children will experience (Murphy 2000). Women make certain choices regarding motherhood to show their commitment to their children. These decisions reflect the gendered expectations of mothering (Reich 2014).

Feminist Standpoint Theories

Feminist standpoint theory argues that the dominant point of view does not take into account women’s standpoints. By examining the gender order from the standpoint of women “the hidden relationships among organizations, institutions, and daily practices that allow men to control women’s lives are made more visible,” (Lorber 2005:14). As an epistemology, feminist standpoint theory is one way to address how gender situates a person’s knowledge. Feminist standpoint theories explain that women are able to understand the world in a different way and “challenge the male bias of existing perspectives,” (Narayan 1989:256). This is possible because

epistemology is shaped by a person's history, beliefs, and experiences. Those who are not in positions of power—marginalized populations—have both the experience of oppression and of struggling against it, which gives them a different basis for constructing knowledge than those in power (Collins 1990; Narayan 1989; Sprague 2005). Narayan (1989) highlights the fact that dominant groups do not have to understand the knowledge of the dominated whereas the dominated are expected to understand the knowledge of the dominant in order to function in society. For example, white, middle class men are not expected to inhabit more than one context of social reality. On the other hand, women of color would be required to inhabit the dominant context as well as the context that best suits their own social reality.

Although standpoint feminism has strengths in that it strives for the contributions of marginalized groups in the production of knowledge, there are also some critiques of these theories. When the experiences and interests of middle class white women, for example, are used as a framework for the production of knowledge, that group is put into a position of power (Lorber 2005). This is problematic because, although women's points of view may be addressed, the group's experiences are likely not homogenous and racial minorities and lower classes are not often represented (Assister 2000; Narayan 1989). Standpoint theory is often critiqued as being essentializing for this reason. If researchers are not careful to understand that not all women share the same experiences, histories, and beliefs it is possible to fall into the trap of essentialism. The creation of a universal women's perspective to represent all women is problematic because this has the possibility of repressing other women's voices (Lorber 2005). Women and men have both shared and diverse experiences that impact their individual viewpoints, and these need to be addressed to have a "fully representative knowledge and culture" (Lorber 2005:190).

Conclusion

Food movements in the US are critiqued because neoliberal ideologies have reoriented the movements' tactics and strategies. Individual choice as an agent of change is the primary focus, and efforts to create change at the state level are outnumbered by efforts that focus on individual choice at the market level. The decisions about the food system are primarily being made by white, middle-class men and the decisions about how the food system should change reflect the ideologies of those involved. The voices and actions of a select few impact the lives of many who do not have a voice in the movement. The literature describes the types of inequalities present in food movements broadly and what some of the resulting implications are for those who are unable to participate in alternative markets. The inability to purchase foods with price premiums from alternative markets is comparable to the exclusion of voices of those who are unable to pay the premiums.

As feminist standpoint theory explains, women's experiences shape their perspectives. This is the premise for looking at how mommy bloggers discuss the GMO labeling movement. In the following chapters, I will examine the differences and similarities between how mommy bloggers and those involved in formal movement organizations argue in favor of GMO labeling. I will then explain how influential gender ideologies are on individual knowledge construction when neoliberal ideologies are present for mommy bloggers involved in the GMO labeling movement.

CHAPTER 3: DATA AND METHODOLOGY

The purpose of this qualitative study is to understand how much gender ideologies matter in individual knowledge construction when neoliberal ideologies are present for mommy bloggers involved in the GMO labeling movement. The specific research questions were outlined in Chapter 1:

- Do mommy bloggers' arguments in favor of GMO labeling align with the arguments made by formal organizations in the movement?
- What does the alignment of these arguments suggest about the power of gender ideologies and structures in comparison to the power of neoliberal ideologies in individual knowledge construction?

I used interviews, participant observation, and a qualitative content analysis to gain an understanding of the dominant perspective of the formal GMO labeling movement and to understand how this compares to mommy bloggers perspectives on the GMO labeling movement. In this chapter, I discuss my data collection and analysis procedures, validity and reliability, and the limitations of this study.

Data Collection and Analysis

Using qualitative methods, I conducted interviews and did participant observation to understand the arguments of GMO labeling activists, and I conducted a content analysis of mommy blogs to understand mommy bloggers' arguments in favor of mandatory GMO labeling. I also used data from interviews with key informants from NGOs, government agencies, and industry leaders who oppose mandatory labeling of GMOs in order to place the arguments of the formal movement leaders within the context of a larger, public conversation. I chose to use

qualitative research as a way to understand the meaning behind the arguments and concerns voiced and to better comprehend the experiences that shape these statements (Esterberg 2002).

The interviews were conducted between July 2013 and September 2014 as part of a larger, USDA-funded study examining societal acceptance of transgenic food crops. I used data from in person and telephone semi-structured interviews with 18 key informants from national and grassroots SMOs. I attended two large meetings of anti-GMO groups where I conducted participant observation. I also conducted a content analysis of 15 mommy blogs that focus on health and food issues.

I chose semi-structured interviews as a data collection method for this research for two reasons. First, they provide rich, descriptive data, and second, the language used by respondents is essential in providing insight into their understanding of the movement and their place within the movement. Specifically, semi-structured interviews have the capacity to “explore a topic more openly and to allow interviewees to express their opinions and ideas in their own words” (Esterberg 2002, p. 87). I chose to do participant observation of anti-GMO groups to gain an understanding of who is involved in the movement, the types of arguments and calls to action the leaders of the movement are using, and to supplement the data from the interviews. I chose qualitative content analysis of mommy blogs as a data collection method because it provides insight about the issues mothers engaged in online activism and support of the movement believe are central to the GMO labeling movement.

Interviews

I used interview data to understand the arguments of GMO labeling activists and to understand in what context movement leaders are making their arguments. The team, led by Carmen Bain, conducted 20 interviews in total. They conducted 12 interviews in 2013 before I

began working on the project. We conducted 8 more interviews in 2014. We used snowball sampling from the initial 18 contacts and were able to conduct interviews with two more informants based on referrals. At the end of each interview we asked respondents to suggest other activists or organizations to contact. From the 20 total interviews, I selected 18 for analysis. The interviews I chose not to include did not have a complete audio file or transcript, and I was not present for the interview.

Informants, detailed in Table 1, were selected based upon the organizations or companies that they are affiliated with, and the organization's public stance on GMO labeling. Seven informants were opposed to GMOs in general and were proponents of mandatory GMO labeling. One informant was neutral about the use of GMOs in general, but was a proponent of labeling. Two informants were proponents of using GMOs, but expressed that they were neutral about GMO labeling. Ten informants were proponents of using GMOs and opponents of mandatory GMO labeling. Although I focus on the arguments made by informants from formal SMOs, I included interviews from governmental organizations and industry as context for the debate.

Table 1: Description of Interview Participants

Pseudonym	Stance on GMOs	Stance on GMO Labeling	Affiliation	Type of Organization
Oliver Nelson	Opponent	Proponent	NGO	Food Advocacy
Amber Odell	Opponent	Proponent	NGO	Food and Environment
Randall Owens	Opponent	Proponent	NGO	Environment Advocacy
Logan Nielson	Opponent	Proponent	NGO	Agriculture and Environment
Holly Fuentes	Opponent	Proponent	Organics	Organic Industry
Lloyd Evanson	Opponent	Proponent	NGO	Agriculture and Environment
Brittany Rios	Opponent	Proponent	Organics	Organic Co-op
Rose Albertson	Neutral	Proponent	NGO	Farmer's Advocacy
Harry Rhodes	Proponent	Neutral	Marketing	Food Marketing/Education
Dean Nevins	Proponent	Neutral	NGO	Farmer's Advocacy
Brent Johannes	Proponent	Opponent	Government	Government Agency
Jarrold Roberts	Proponent	Opponent	NGO	Scientific
Ashley Adams	Proponent	Opponent	NGO	Scientific
Devin McKinney	Proponent	Opponent	Industry	Biotechnology
Allen Ingersoll	Proponent	Opponent	Industry	Biotechnology
Carl Chambers	Proponent	Opponent	Government	Government Agency
Aaron Mclean	Proponent	Opponent	Industry	Biotechnology
Elizabeth Humphrey	Proponent	Opponent	NGO	Farmer's Advocacy

We selected informants affiliated with organizations that were major players in both statewide and national GMO labeling movements. The organizations that were selected as being major contributors to the movement included national and international food and environment NGOs and advocacy groups, organic co-ops, and SMOs that were involved in trying to get statewide ballot measures passed for mandatory labeling. Each organization had expressed on their website their explicit stance and involvement in the GMO labeling movement and the debate surrounding GMOs. All of the organizations selected were large enough to have a board of directors and formal leadership structure. While many of the organizations involved in the movement are activist groups, there are an increasing number of companies such as Whole Foods and Ben and Jerry's that are involved in the GMO labeling movement as well. I tried

contacting companies that expressed a specific stance on GMOs and GMO labeling, but they all declined to be part of the study. Leaders from the ten grassroots organizations I contacted also failed to respond to my request or declined involvement.

I requested interviews by email (see Appendix 4 for a sample introductory letter) and followed up with a phone call to schedule the interview with interested participants. These letters were sent to persons in leadership positions, primarily directors and vice-president level positions. Of the 36 individuals and organizations I personally made contact with between July and September 2014, 5 agreed to be interviewed as part of the study.

For interviews that were to be conducted over the phone, I sent an informed consent form (see Appendix 5) prior to the date of the interview so that the informant could give verbal consent at the time of the interview. I took two copies of the informed consent form to in-person interviews so that the informant could sign one and keep one for their records. Interviews began with providing detailed information to the respondents about the study and answering any questions they had about the study. Informants were reminded that they could decline to answer any question, could withdraw at any time without penalty, and that their individual responses would be kept confidential. I also advised them that, with their permission, I would be recording the interview.

Interview guides were put together for each interview including the general topics and prompts that would help guide the interview (See Appendix 6 for a sample interview guide). Some of the questions and topics covered in the interviews included their general feelings and stance on GMOs, their position on GMO labeling, regulatory efforts, and thoughts about the environmental impacts of GMOs. Although I used an interview guide, I allowed the informants to speak openly about their primary concerns. This led to some informants spending a lot of time

talking about one topic without speaking to some of the other topics that were on the guide. I also took notes during interviews as a security measure in case something happened to the audio file, but also to emphasize things that stood out to me during the interviews. I assigned each informant a pseudonym. In order to avoid a lengthy paper trail that could breach the confidentiality of my informants, I ensured that none of my raw data were being stored in an unsecure location. This prevents any accidental breach of confidentiality that may occur due to unsecure internet connections or hacked webservers.

A member of the research team transcribed each of the interviews. I used NVivo to code for common themes and relationships using open, axial, and selective coding. For example, an open code in several interviews was “superweeds,” the related axial code was “herbicide resistance,” and the selective code was “environmental harm.” I noted themes, patterns, and relationships, as well as deviations from the common patterns. The codebook for interviews with anti-GMO informants can be viewed in Appendix 1. The codebook for interviews with pro-GMO informants can be viewed in Appendix 2. The analysis of interviews focuses on what the informants feel are the key issues related to the GMO labeling movement.

Participant Observation

Since I was unable to interview several of the most prominent leaders in the GMO labeling movement, I chose to do participant observation at meetings where they would be presenting their stance on GMOs and the GMO labeling movement. I attended two large meetings of anti-GMO and GMO labeling activists. The first meeting I attended was the 2014 *Justice Begins with Seeds Conference* in Portland, Oregon. I selected this conference because several of the presenters were very involved and outspoken in statewide mandatory GMO labeling ballot initiatives. The second meeting I attended was the opening event for the 2014

Occupy the World Food Prize week in Des Moines, Iowa. I attended this event because several key anti-GMO activists were presenting at the meeting. The event runs in opposition to the *World Food Prize* event, which celebrates advancements to improve the world food supply. Since the *World Food Prize* is generally supported by corporate and industrial agriculture, the presenters advertised that they would be discussing the harms of corporate control of the food system and industrial agriculture. I felt that this would supplement the data that I had already collected in interviews because these themes came up frequently in the interviews and in the *Justice Begins with Seeds Conference*.

At each event I took field notes to keep track of what people were saying and doing at the event. I focused primarily on what the speakers were saying because some of the speakers were people who I had wanted to interview but would not agree to participate in the study. I noted the major points of their presentations and quotes that really stuck out to me. Because I was so focused on what the presenters were saying I likely missed anything that may have been happening in the audience, although prior to each presentation I took note of who was in attendance. At the *Justice Begins with Seeds Conference* there was a point where presentations were happening in multiple areas of the building, so I had to choose which presentations to attend. This means that I missed the other presentations that were happening at the same time. I also noted how many people were in attendance at each meeting and the demographic data of the attendees. I imported my notes into NVivo to code them for major themes and relationships. My analysis focused on understanding how leaders were discussing the major goals of the movement.

Content Analysis of Mommy Blogs

To understand how women, specifically mothers, are formulating arguments about their opposition to GMOs, I also conducted a content analysis of mommy blogs. I chose mommy blogs because mothers are able to voice their concerns and beliefs through the platform of mommy blogs. I chose to conduct a content analysis rather than interviewing mothers because mommy bloggers are able to express their concerns in the context of their lives and experiences rather than in response to interview prompts. The blogs show a more natural point of view than interviews would have. Also, since mommy bloggers are using this platform, in part, for keyboard activism, the data collected shows their involvement in the movement, even if it is in a less formal way.

I selected blogs based on their popularity and ranking within the mommy blogging community. After selecting a sample of approximately 30 blogs, I selected 15 that had the most page views as calculated by web analytics software and had posted at least an average of twice per month so that I could be sure the bloggers were still actively blogging. I collected the data between August and December 2014 and selected entries that were posted between 2010 and 2014. I analyzed entries that discussed topics related to food preferences, GMOs, organics, or natural foods. Entries about food preferences include posts that highlight the foods that the bloggers feel are best for their families and their favorite brands of foods to buy. Topics related to GMOs include posts about GMO labeling as well as any posts that detail their preference not to purchase GMOs and why they do not buy products containing GMOs. Entries discussing organics include posts about which foods the bloggers feel are most important to buy organic and advocacy for organic foods and brands. Posts that discuss natural foods are those in which the bloggers express the desire to feed their families food that are not processed and do not contain chemicals or GMOs. Each blogger had at least 20 blog entries relating to the aforementioned

topics. Each blog entry was approximately one to two pages long. I compiled all of each blogger's entries into one document so that I could analyze each blogger's arguments as a whole.

In addition to analyzing these blog posts, I reviewed the "about me" pages for each blog. I was able to gather self-described demographic data from the descriptions and pictures that the bloggers post on their "about me" pages. Table 2 describes the bloggers that are included in this study. All 15 of the bloggers are heterosexual, married women, and, with the exception of one Asian woman, they all appear to be white based on their posted pictures of themselves. Each blogger described herself as either a stay-at-home mother or as a mother that is also working from home as an entrepreneur. Based on the fact that most of the women are financially able to stay at home with their children and have the ability to be selective about the type of food they are purchasing and feeding to their families, I am able to conclude that these women are in a position of relative economic privilege. They are likely members of middle- to upper- class families.

Table 2: Description of Mommy Bloggers

Name	Stance on GMOs	Stance on GMO Labeling	Marital Status	Race/Ethnicity	Occupation	Name of Blog
Anastasia	Opponent	Proponent	Married	White	Photographer	Eco-Babyz
Cara	Opponent	Proponent	Married	White	Writer	Kid Friendly Organic Life
Christina	Opponent	Proponent	Married	White	N/A	Hippy Homemaker
Chrystal	Opponent	Proponent	Married	White	Marketing Consultant and free-lance writer	Happy Mothering
Elizabeth	Opponent	Proponent	Married	White	N/A	Pirate Prerogative
Gina	Opponent	Proponent	Married	White	N/A	Embracing Imperfect
Jessica	Opponent	Proponent	Married	White	Stay-at-Home Mother	Jessica Gottlieb
Kat	Opponent	Proponent	Married	White	N/A	Your Organic Child
Kelley	Opponent	Proponent	Married	White	Nutrition Counselor	Kelley's Passion for Nutrition
Leah	Opponent	Proponent	Married	White	Blogger and Activist	Mamavation
Joanna	Opponent	Proponent	Married	White	Stay-at-home Mother	Just Joanna
Sam	Opponent	Proponent	Married	White	N/A	Crunchy Livin'
Sarah	Opponent	Proponent	Married	White	N/A	Peace Love Organic Mom
Vicki	Opponent	N/A	Married	White	Works from Home	Five Spot Green Living
Zen	Opponent	Proponent	Married	Asian	Mom	Moms Across America

My analysis of the mommy blogs focuses on what the bloggers feel are the key issues related to the GMO labeling movement. I used NVivo to capture PDFs of the blog entries, which I then coded using NVivo. I looked for common themes and relationships using open, axial, and selective coding. For example, an open code in the content analysis was “We do not know what the long-term impacts of GMOs could mean for the future,” the related axial code was “there have not been enough trials,” and the selective code was “scientific uncertainty.” I noted themes, patterns, and relationships and deviations from the common patterns. The codebook for the content analysis of mommy blogs can be viewed in Appendix 3.

Ethical Issues and Considerations

From the beginning, the relationship between the researcher and the participant is unequal. The structure of research facilitates this unequal relationship in that the researcher is in a position of power from the start. Because the researcher is studying the participants, the participants are in a place of increased vulnerability. They are often sharing sensitive and intimate information, and sometimes the participants will disclose information that puts researchers in an ethical dilemma because they agreed to confidentiality and they are in a position of power (Esterberg 2002). The relationship a researcher has with a participant will likely benefit the researcher more than it can help the participant. Researchers need to be careful about the potentially exploitative nature of these relationships (Esterberg 2002).

Because of the vulnerability of research participants, it is necessary to take steps to ensure ethical practices. In doing research, there is a potential for the participants to be harmed at all levels. Ethical practices help to minimize the chances of harm to participants. In qualitative research there are increased difficulties regarding confidentiality in some cases (Esterberg 2002).

Ethics guidelines set by professional organizations such as the American Sociological Association and IRBs can help to limit harm and oversee ethical issues in social research. This study, as part of a larger research project, has IRB approval and all IRB guidelines were followed in collecting data for this study. Steps have been taken to maintain the confidentiality of informants through using pseudonyms and leaving out the names of the organizations that informants are affiliated with. Instead, the organizations are described only by the type of organization because it would be otherwise too simple to identify which organization and which person gave the interview.

Validity and Reliability

I established validity in my research by keeping track of every step I took in the research process. While in the field, I kept notes during the interviews and participant observations and also recorded the interviews. The legal names of the informants are kept with the corresponding pseudonyms in case I need to go back to an informant during the research process. I captured PDFs of the blog posts and web pages that I analyzed from the mommy blogs so that I have the content if I need to go back to it. I did this so that I have a record of the blog content in case something is changed or removed from the blog. Reliability is established through comparing my findings to previous research. I also looked for a link between my findings and existing theory.

Limitations of the Study

This study builds on data collected as part of a larger project. The scope of this study focuses primarily on mommy bloggers and those involved in the formal movement. Both of these groups of people are disproportionately white and middle class. A greater depth of data could have been gained by seeking out people of color who are involved in the movement for interviews or including blogs by women of color to understand whether people of color would also use neoliberal ideologies to inform their arguments or if their arguments would be more strongly shaped by other experiences and ideologies as marginalized populations. The data I collected is almost solely from white middle-class people. Although there may be women of color mommy bloggers who address similar health and environment issues, I selected blogs that had a high rating and a high number of page views. Often these blogs are also marketized, and marketers target white middle-class mommy bloggers (Lawrence 2009). Further research could look into the implications of the marketization of blogs and whether this influences what mothers blog about in order to address this gap in the scope of my research.

In the following chapter, I present the findings of this research. The findings show the dominant arguments of the GMO labeling movement leaders and the arguments made by mommy bloggers in favor of GMO labeling. The data shows that both groups frame arguments about labeling very similarly, and both groups' arguments are shaped primarily by a preexisting neoliberal ideology. My analysis shows that the neoliberal ideology is stronger than individual experiences as women in shaping mommy bloggers' arguments, despite what feminist standpoint theory might suggest.

CHAPTER 4: RESULTS AND DISCUSSION

I evaluated the arguments made in the interviews, participant observation, and content analysis based on what themes emerged and how the argument was framed. I found that the arguments made by leaders from formal movement organizations and mommy bloggers were very similar. Arguments conveyed the following themes: right to know, concern with the safety of genetically modified foods, distrust of corporate science and corporate agriculture, concern about the environment, and the naturalness of GMOs. Additionally, a good mothering theme emerged in the blogs, and this theme included ideas about making good food choices for the wellbeing of the family. Table 3 and Table 4 show how many times each theme emerged from leaders of formal movement organizations and mommy bloggers respectively. Table 3 shows that environmental concerns and right to know themes emerged most frequently in the arguments of leaders of formal movement organizations while the Frankenfood and health concerns themes emerged least frequently. Table 4 shows that health concerns and right to know themes emerged most frequently in the arguments of mommy bloggers while the environmental concerns theme emerged least frequently.

While there was a slight difference between the movement leaders and mommy bloggers in which themes emerged the most frequently, the arguments were very similar and both groups' arguments were heavily influenced by a neoliberal ideology. At the basis of the arguments, there were preexisting ideas about how the market-based economy works and how the movement could work within the existing system to create desirable outcomes rather than changing the system itself. The similarity of arguments between the movement leaders and the bloggers was not something that I had expected to find. Based on suggestions from past research, I intended to analyze my data using feminist standpoint theories. I predicted that greater involvement from

women in the movement would result in different issues being brought to light based on my understanding of feminist standpoint theories. As an epistemology, feminist standpoint theories can address how gender situates a person's knowledge. Narayan (1989:256) explains that women are able to understand the world in a different way and "challenge the male bias of existing perspectives" because a person's history, beliefs, and experiences shape their individual construction of knowledge. Since the data showed similar arguments from the movement leaders and the mommy bloggers, I argue that since the movement is so influenced by neoliberal ideology that standpoint theory is not adequate to explain how mommy bloggers' involvement could differently contribute to the movement. Below, I analyze the arguments presented as being rooted in a neoliberal ideology, and then I show the limitations of feminist standpoint theory in the case of mommy bloggers.

Table 3: Arguments of Leaders in Formal Movement Organizations

Theme	Frequency of Theme Present
Environmental Concerns	9
Right to know	9
Regulatory Concerns	8
Corporate control	6
Distrust of Corporate Science	6
Scientific Uncertainty	5
Transparency	5
Frankenfood	4
Health Concerns	4

Table 4: Arguments Present in Mommy Blogs

Theme	Number of Blogs with Theme Present
Health Concerns	15
Right to know	11
Frankenfood	9
Good Mothering	9
Regulatory Concerns	8
Scientific Uncertainty	6
Corporate control	5
Distrust of Corporate Science	5
Support Local Agriculture	5
Transparency	5
Environmental Concerns	3

The right to know and the right to “choose”

One of the most common ways that the interviewees and bloggers framed their arguments in favor of mandatory GMO labeling was through explaining that people should be able to make their own choices about the food they purchase based on information displayed on labels.

Ultimately, arguing that more information should be available so that people can make informed choices about their food ties back to the concept of “voting with your fork,” which is a form of neoliberalized activism where people show their support for certain foods and distaste for others through what they purchase (Roff 2007). Rather than advocating for change in the food system through increased state regulation or changing legislation, this form of activism relies on the general population to create change in the food system through making individual choices about which foods are favorable (Roff 2007).

While the primary focus is on the market, each SMO involved in the movement has also paid some sort of attention to the state (Roff 2007). Regulatory concerns include arguments that the current regulatory process is not strict enough. This includes concerns that there is not a mandatory approval process for all GMOs because they are considered substantially equivalent to conventional crops in the US. Regulation and governance is central to the debate about GMOs. Interviewees discussed the current regulatory processes and how they would like to see the processes change. Mandatory labeling of GMOs was one proposed solution to what some have deemed an inadequate regulatory system. Although some interviewees favored mandatory labeling of GMOs, others felt that voluntary labeling of non-GMOs should be the standard. Those in favor of mandatory labeling cited the consumers' "right to know" what is in the products they are purchasing. In advocating for labeling rather than a stricter oversight the regulatory process, the movement shows its distrust of the state to effectively govern the food system (Roff 2007).

The right to know is the idea that people have the right to know whether they are buying foods that have been genetically modified and should be able to make an informed choice about what they purchase. Some of those who express this argument do so by stating that GMO labeling is a fundamental right, while others argue that more information should be available and people should know what is in the food they purchase. This argument was most often used in appealing to the desires of individual consumers. For example, Oliver Nelson, a member of a food safety advocacy organization and proponent of labeling, stated, "In this day and age people want more information not less about whatever product they are buying. You never want to walk into a store and say I actually want less information about this to make an informed choice. So I think that is one of the issues that has driven the interest amongst consumers about the GMO

issues.” The movement’s commitment to the rights of the individual consumer is characteristic of neoliberalized activism.

Many bloggers were involved in advocating for Prop. 37 in California in 2012, and some continued on with advocacy for statewide labeling campaigns advocating in favor of the 2014 proposals in both Oregon and Colorado. Five of the bloggers identified themselves as being in a GMO labeling evangelist group during the Prop. 37 campaign. Leah Segedie, the founder of the blog Mamavation, was part of the evangelist group. In her call for action she stated, “Prop. 37 is enlisting the help of bloggers all over the United States and Canada to help educate everyone about the opportunity we have RIGHT NOW in November. If we can change the labeling laws in California we may be changing labeling all over the United States in the process.” Although Leah is located in California, even bloggers that lived in other states were taking action in the advocacy for Prop. 37 because they, like Leah, were hopeful that a Yes on 37 in California would lead to a more widespread change in the food system.

Confidence and certainty in the safety of food

Interviewees associated with mainstream SMOs and mommy bloggers expressed that they did not feel confident and certain about the safety of GM food. Scientific uncertainty explains part of the arguments and concern with transparency explains the other part. Bloggers explained that they do not feel confident and certain that GMOs are safe, which is why they advocated for not purchasing them. Instead of purchasing GMOs, they suggest purchasing organic or non-GMO foods, which they felt they could trust more. Both the bloggers and interviewees felt that transparency from corporations was a problem. This contributed to the distrust and uncertainty that some of the bloggers and interviewees felt toward GMOs, seed producers, and food manufacturers.

Scientific uncertainty is the idea that there are still many unknown aspects of genetic modification. This includes uncertainty about the safety of GMOs and uncertainty about the impact of GMOs on human and animal health. One blogger, Zen, referred to genetic modification as genetic roulette. She argued that when the DNA is changed we cannot be sure of all the impacts that the change could have. Some might be safe, which she doubts is the case, but there is a risk for very dangerous, potentially lethal, outcomes. This argument is followed up with an argument about the lack of benefits for anyone involved in the process aside from corporations such as Monsanto. Amber explained her frustration with the lack of new data and the lack of long-term data, “It’s feeling like a fairly limited pool of company data that’s getting recycled; it’s not long-term. It’s not very sophisticated, you know, short-term 90-day animal study kind of thing. Are we talking about allergies over a lifetime? You know, it’s just not able to go there.” She argued that there is no way to know the long-term impacts of GMOs without conducting long-term testing, which is majorly absent. Oliver Nelson, a proponent of labeling, touched on his organization’s concerns about the amount of testing done on biotechnology before it is placed in the market. His organization follows the precautionary principle in regards to new technologies, and this was echoed in his concerns, “When we’re talking about genetic engineering in agriculture, part of the precautionary concern in the beginning was the potential for the development and proliferation of herbicide resistant weeds as a result of herbicide resistant crop technologies.”

The transparency theme includes arguments that the regulatory system is not transparent and if corporations are against labeling then they must be hiding something. The lack of transparency from corporations is one reason that some interviewees felt that the GMO labeling movement had gained momentum. Oliver Nelson, a proponent of labeling, stated,

“I think one of those issues has been the issue around the labeling. Consumers are aware that 64 other countries require the labeling of GE foods in some form. Consumers are also aware that food manufacturers and then the technology providers and the seed companies have fought tooth and nail to resist labeling, and that always sends a bad message to consumers when they see a company fighting, not to disclose information, because the automatic response is what are they holding? Why are you afraid to label?”

Three other interviewees echoed the sentiment that companies that are unwilling to label must be hiding something. This was especially prevalent in discussions regarding the massive support that companies gave to the No on Prop. 37 campaign in California in 2012. One interviewee who opposed labeling, Jarrod Roberts, felt that things should not be hidden, but that this did not necessarily mean that mandatory labeling was the best way to be transparent. He suggested that a better regulatory process that people could feel confident in would negate the need for labels that would allow consumers to make personal choices about safety. Although several interviewees expressed that they would like to see a better regulatory system, many of them worked with organizations that also advocated in favor of labeling and individual choice, indicating that the movement has given up on the state as a potential ally (Roff 2007).

Similar to the unity over Prop. 37, several bloggers discussed H.R. 4432-Safe and Accurate Food Labeling Act of 2014, which they refer to as the Deny Americans the Right to Know (DARK) Act. This Act was introduced in the House in April 2014 (Pompeo 2015). The Act would preempt any local or state regulations or labeling requirements in favor of federally set requirements (Pompeo 2015). As Christina, a mommy blogger, (2014) explains it, “This bill would not only preempt state efforts to label GMOs [sic], it would make voluntary labeling [of non-GMOs] the law of the land, permanently. That means, if the DARK Act passes, the fight for

mandatory GMO labeling will be over!” Later in the blog post, Christina called for action against the Act, stating, “I am standing up for our right to transparency and you can too.” Gina Badalty, a mommy blogger, also called for action in ending the Act. She advocated for voters to call their respective state representatives and senators and explain their desire for GMO labeling. Gina even went as far as to explain what should and should not be said in the phone calls in order for the calls to be taken seriously:

“Do not say anything [about] the safety of GMOs or anything health- or sickness-related (this is very important). Instead, tell them you oppose the “Safe & Accurate Food Labeling Act of 2014,” and that you support the labeling of genetically engineered foods and the states’ right to make that choice.”

Trusting information and supporting “trustworthy” sources

Bloggers and interviewees alike expressed that they had concerns with fully trusting the information available from seed producers about the safety of GMOs. In this case, the bloggers wanted mandatory labeling of GMOs so that they knew which products to trust or not to trust. Similar to the right to know argument, more information would allow people to make their own judgments about what food they wanted to purchase and the food sources they wanted to support. Through purchasing non-GMO and organic foods, the bloggers explained that they could choose to support only trustworthy sources. Some bloggers took it one step further and advocated buying local and talking to the farmer directly as a way to be sure of the food’s source.

The distrust of corporate science theme includes concerns that corporate science is biased because those corporations that will benefit directly from specific outcomes fund it. This also includes arguments about a need for more third party or independent research, as well as concerns about the backlash that independent researchers would receive for getting results that

would be unfavorable to corporations in the US. This was coupled with the corporate control of agriculture theme, which focuses on patent laws in the US and the idea that seed companies have a monopoly of both seeds and genes. The interviewees who discussed these themes felt that the inability of outside parties to conduct research on GMOs was a major cause for concern. They also explained that the research that had been conducted in the past and showed negative results was highly criticized and widely discounted as being pseudo-science.

Those who advocated for third-party research felt that this would show a more realistic and unbiased picture of the safety and effectiveness of GMOs. The current patents on seeds do not allow for outside researchers to test the seeds. Amber Odell, a proponent of labeling, touched on the issue of patents and research in the US, stating, “The patents say you can’t do research on it and there’s just a void. That’s one of the biggest things we hear all the time about why we don’t see critical research coming out of the US. It’s very hard for researchers to access the deeds to do studies. The patent agreement says that you’re going to grow it for food or you’re not going to grow it.” They argue that this means those who develop the seeds and stand to benefit the most from positive test results in the areas of safety and effectiveness are conducting all of the research on GMOs.

While many felt that there was a need for independent, peer-reviewed research, there were some that directly addressed some of the reasons, aside from patent laws, that they felt this type of research was not happening. Holly Fuentes, a proponent of labeling, explained, “All the independent researchers who do it are ridiculed to the point that there are even researchers that don’t even want to do independent research on biotechnology or GMOs anymore. I think it’s a very sad state of affairs when you have such a lack of accountability and responsibility in a huge sector of our agriculture in our corporate business world.” Chrystal, a blogger, expressed similar

doubts in stating, “Industry funded studies have not gone past 90 days so they can only attest to the acute effect of GMO corn and Round Up.” Cara, a mommy blogger, put her faith in science that is being conducted by non-corporate entities, such as the Rodale Institute. She stated, “The Rodale Institute has been carrying out the longest-running US Study comparing organic and conventional farming techniques and has helped to train soil building farmers all over the world. Their methods work and they won’t kill us in their effort to feed us,” (Kid Friendly Organic Life 2013).

Interviewees who discussed the lack of independent research in the US did not sound optimistic that this would change without a major change in the regulatory and economic systems first happening. As they explained it, the corporate control of this science has reached beyond just the ability to conduct independent research, and there is a lessening desire to conduct critical research because doing so could be detrimental to a researcher’s career in the US.

The support of local agriculture theme includes arguments that buying locally is a better way to know where the food came from and the process that was used to grow the food. This also goes along with the idea of buying locally to support farmers in the community rather than corporate farms. The bloggers that discuss buying local and organic foods are often talking about doing so in conjunction with making certain ethical choices. Locally grown foods are those that are grown within the buyer’s city or state. These foods can be transported quickly from the farm to a farmer’s market. The bloggers often describe local foods as being fresher and explain that it is good to know where the food came from and be able to talk to the farmer who grew the produce. The bloggers explain that this is important because then they are able to ask about production practices to know that they are buying something that they feel ethically good about. Some of the bloggers argue that buying locally grown agriculture supports the local economy

and farmers rather than large corporate farms, which is another benefit to buying locally when possible.

Purchasing local and organic produce is an important step in knowing where the food came from and understanding the production process that went into growing the food being purchased. Anastasia, a mommy blogger, explained,

“The key is not to only know where your food comes from but to know how your local farmer grows that food. Don't hesitate to ask questions at the farm stand. You can get great deals on produce that is organically grown but is not certified, often even cheaper than grocery store prices. Most times buying a local non-certified organic apple is a much more environmentally and economically sound option than buying a certified organic one transported from 5,000 miles away. Plus if it is local, you get the freshest pick, not something that has been sitting in a truck for a week,” (Eco-Babyz 2009).

Another blogger, Cara, advocates six different ways that people can promote the use of organic farming methods rather than encouraging conventional methods and methods that include the use of genetically modified seeds. She explains that people should buy organic and local whenever possible, give an organic gift, don't buy GMO food, ask local markets to carry more organics, speak up to friends and family about the benefits of organic and locally grown products, take steps to speak intelligently about purchasing organics.

The problem with advocating in favor of labeling to address problems related to trusting corporate science is that corporations and the state are absolved of any responsibility regarding the food system (Roff 2007). Promoting the purchase of non-GMO and organic foods to show support for a specific production process places the responsibility on the individual consumer (Allen 2004; Roff 2007). The individual consumer is responsible for making conscientious

choices, and if there is a problem with the food system, it is because consumers did not put their money in the right place (Roff 2007).

Supporting an environmentally sound food system

Environmental concerns include anxieties about the sustainability of the food system, increased use of chemicals, an increase in herbicide resistant crops, and the growing problem of superweeds. Increased use of chemicals, herbicide resistance, and the sustainability of corporate agriculture were often discussed together, for example. Similarly, damage to the ecosystem, water quality, soil erosion, and monoculture were all concerns typically presented together in the interviews. Three of the bloggers also voiced concerns about potential damage to the environment due to the use of chemicals. The solution that the bloggers presented to deal with their concern about environmental harm due to GMOs was to support only brands and companies that use sustainable farming practices. This included the push to purchase organic and non-GMO products as a way to show support for sustainable agriculture. Some of the interviewees suggested changes to government regulations regarding pesticides and herbicides, but the drive was primarily for mandatory labeling, which they viewed as a stepping stone to stricter regulations or a pull away from using GMOs completely. For some organizations involved in the movement, the end goal is to seek a more fundamental change the agricultural system, including more environmentally sustainable practices. Neoliberal ideologies have reoriented the tactics and strategies used by activists so that state-targeted opposition has been replaced by the use of alternative markets (Allen 2004; Roff 2007). Rather than weakening the current food production system, the creation of alternative markets reinforces and further fragments the system (Roff 2007).

Several of the interviewees discussed the idea that corporate agriculture and monoculture is the reason for increased chemical use and herbicide resistance. They explained that the monoculture system itself is unsustainable, and that is the type of agricultural system that biotechnology is designed for. Because crops are not being rotated, the weeds become resistant to herbicides, creating superweeds. This has created a need for more, harsher chemicals, which some interviewees referred to as a chemical treadmill. Amber Odell, a proponent of labeling, was one of the interviewees that specifically discussed the chemical treadmill. She explained, “People earlier to the issue than us, smarter than us have been warning for a long time that this is what is going to happen with the chemical treadmill when you push one chemical this hard, when RoundUp becomes so ubiquitous. Guess what’s going to happen to the usefulness of RoundUp and now here we are and we’re in the making for 2,4-D Ready, Dicamba Ready.” These two examples show the interconnectedness that interviewees were trying to convey about the increased use of chemicals associated with GMOs and a monoculture system as being harmful to the environment.

The link between damage to the ecosystem, water quality, soil erosion, and monoculture was less commonly discussed by interviewees, but still emerged in several interviews. This discussion framed monoculture farming, which is inherent to the use of GMOs, as being damaging to soil and water quality. Lloyd Evanson, a proponent of labeling, explained, “The heavy use of glyphosate, issues around water quality and so forth these are our concerns. I think for us we put it in the bigger picture. It's not just GMOs. You can switch away from GMOs and still be using a lot of pesticides and atrazine and whatever. The monoculture system is incredibly harmful to the soil and water.” Although Lloyd described the monoculture as being a problem regardless of whether GMOs were used, he explained that monoculture was inherent to the way

that the technology is developed and marketed. He described some work being done out of New Zealand where GMO seeds are being developed open source for use outside of corporate agriculture, but he clarified, “That's not what they've been developed for (in the US). I don't see any sign that they are really being developed for that.”

Choosing natural foods

The bloggers and interviewees spoke to the idea that there is something unnatural about GMOs. For the bloggers, this generally meant expressing that GMOs are unnatural because they were created in a lab. Rather than advocating for a change in the food system, which could include a transition to non-GMO agriculture, the bloggers advocated in favor of purchasing organic as a way to be sure that they are purchasing natural foods. Interviewees associated with environmental advocacy and pro-organic organizations spoke to naturalness regarding how GM plants interfere with nature. While interviewees did not feel that mandatory labeling of GMOs is the long-term solution to the interference with nature, several of them expressed that mandatory labeling is a step in the right direction, which would hopefully lead to GMOs no longer being produced. This is another example of how neoliberal ideologies reoriented the movement's tactics and strategies. The end goal is not mandatory labeling, but the attention paid to this suggests that real change comes from the market, not legislature (Roff 2007).

The theme of GMOs as Frankenfood or meddling with nature addresses concerns of naturalness in the food system. This includes opinions that because the food has been genetically altered, it is no longer natural. In the blogs, sometimes pictures of a fruit that appears unnatural, such as an apple with an orange inside of it, as shown in Figure 1, accompanied this argument. The term “frankenfood” was explicitly used by several bloggers to describe GMOs in a negative context and show that GMOs are not natural and potentially harmful, like Frankenstein. Pointing

out the fact that genetic modification happens in a lab is one way that these bloggers commented on their disapproval of unnatural foods, which they argued are unhealthy for their families. They explain that rather than feeding their families foods that are unnatural, they should be feeding their families organic foods as much as possible because purchasing organic food is the only way to ensure that they are not buying something that is unnatural.

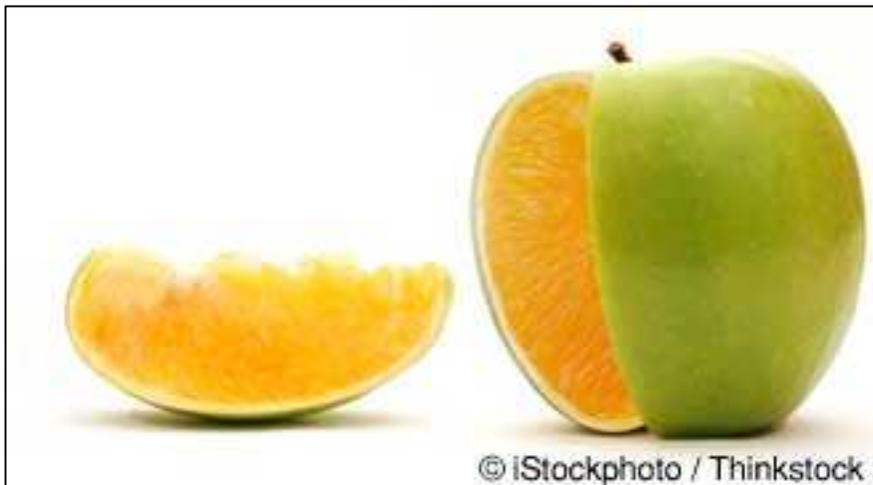


Figure 1: Orange within an Apple

This is an example of the images that bloggers post when referring to GMOs as frankenfood. The image is edited so that the inside of an orange replaces the inside of an apple, representing the implantation of genes from one organism into another.

Although the term “frankenfood” is often associated with the anti-GMO movement, the term was not used by any of the professional activists or experts that were interviewed. Instead, they framed GMOs as being unnatural in other ways. Three of the interviewees described GMOs as creating a treadmill because more technology is created to solve problems that were due to the initial technology. This reference was not only to the treadmill of chemicals, which several interviewees discussed in relation to environmental harm, but also to constantly having to create new technologies to combat the ways in which nature has adapted to the technologies. For example, Logan Nielson, a proponent of labeling, described the problems he thinks are associated with GMOs, “You’re seeing this turn as nature develops ends around Roundup.

Switching to other types of herbicides, and it's the classic type of treadmill that this type of agriculture is on with the constant need to develop alternatives as nature adapts."

"Choices" and the "good mother" identity

I found that mommy bloggers' arguments were shaped by neoliberal ideology just as the experts' and professional activists' arguments were. In fact, even the argument made solely by the mommy bloggers—that buying non-GMO is part of being a good mother—was rooted deep in neoliberal ideology. The mommy bloggers defined themselves as good mothers based on their abilities to make "choices" within the food system. Through purchasing certain types of food, the bloggers are able to justify their identities as good mothers. Non-GMO and organic foods are part of a niche market, and foods in these niche markets generally come with a price premium that not all people can afford. In other words, this aspect of their "good mother" identity depends on the availability of both good and bad foods in the market, the availability of niche markets, and the privilege to make choices about the types of food they purchase.

Although not all of the bloggers discussed being a good mother explicitly, many of them did explain that they like to make healthy choices for their families and stated that they were selective about the types of products that they will expose their families to. Eleven of the fifteen mothers made an argument that fell under the theme of good mothering. Some of these women even describe themselves as "granola moms" or "crunchy moms" in regards to their parenting styles. The terms "granola" and "crunchy" are meant to evoke images of health foods and being one with nature. For example, Sam, a mommy blogger, touts that the lifestyle she chooses to live and provide for her children is "crunchy" because she strives to live as close to nature as possible. Vicki, a mommy blogger, described herself as being passionate about "all things natural, healthy, and herbal." Another mommy blogger, Elizabeth Bruno, explained that she was

not concerned about living a healthy lifestyle until she had her son. At that point, she began to pay more attention to the type of food that she purchased because she was more concerned about making him sick than she had been about making herself sick in the past.

Only one mother specifically felt the need to address this topic as a disclaimer in her “about me” section of the blog. Rather than calling herself a good mother, she explained that she does not always have everything together and perfect and that she is not trying to convey her life in that way. Anastasia, a mommy blogger, explained, “As a reader you may sometimes get the impression of me as a 'perfect' mom! I assure you, I am anything but! I have good days and bad days. I lose [sic] my temper, I let the dust bunnies run, my laundry piles up. I am human, trust me! My blog is meant to be inspiring, not to make you feel guilty.”

As the mommy bloggers discussed how they strive to be good mothers through the foods they purchase and feed their children, they failed to acknowledge the privilege that enabled them to be selective and make choices. The mommy bloggers focused on how their choices make them good mothers or how striving to be a good mother influenced how they make choices about food, but if these choices are what make a good mother, then not all mothers have the ability to be good mothers. With the exception of one Asian woman, the mommy bloggers in this study were all white. Additionally, the mommy bloggers all appeared to be middle-class women and most expressed that they worked from home or were stay-at-home mothers. The mommy bloggers in this study did not acknowledge the privilege of choice. Because of their socioeconomic statuses, they were able to make choices without considering the fact that not all people can pay premium prices for food or be selective about where they shop. Not all mothers are able to pay for the good mother identity that these mommy bloggers strive for.

The limitations of feminist standpoint theory when a neoliberal ideology is dominant

Although the bloggers and interviewees gave a variety of reasons for advocating mandatory GMO labeling, all of the reasons were rooted in a neoliberal ideology. They focus on an individual change in consumption habits as a way to alter the practices of food manufacturers. The movement's tactics and strategies for seeking change in the food system show movement's roots in neoliberal ideology. For example, several bloggers explained explicitly that they had a problem with the naturalness of the food, but their solution to this problem was market-based and relied on individual consumers to make responsible choices rather than directly attacking the production of unnatural foods. Buying organic and non-GMO foods is how the bloggers advocate for the production of natural foods and against the production of foods they deem unnatural.

I entered into this research expecting that I would find a difference in how mommy bloggers argued against GMOs compared to how experts and professional activists advocated in favor of mandatory GMO labeling. I planned to analyze this difference using feminist standpoint theories on the basis that women would want to challenge systems that oppress them, and their experiences as women would shape and situate their knowledge (Narayan 1989). I thought the mommy bloggers would be more likely to challenge the system rather than work within it because their individual history, beliefs, and experiences shape their worldviews. Instead, I found that both groups used a neoliberal ideology in formulating their arguments and positions on GMOs and GMO labeling. This means that instead of challenging the current market-central system, activists present market-based solutions to the problems that they have with the food system.

In this case, feminist standpoint theories alone cannot be used to fully explain how the mommy bloggers' worldviews were formed since the mommy bloggers and the interviewees had similar and overlapping perspectives on GMOs and GMO labeling, with the exception of the mommy bloggers' discussions of being a good mother. The experiences that the mommy bloggers shared as influencing their perspectives on GMOs and GMO labeling were not shaped by gender ideologies. Standpoint theory does explain part of the mommy bloggers' arguments. The bloggers discuss mothering and being a good mother as part of why they want GMOs labeling, and they often discussed their other arguments in the context of good mothering. However, the mommy bloggers talk about mothering in the context of neoliberalism. This means that gender ideologies and structures do play a part in how the mommy bloggers formulate their arguments—they do, after all, place their arguments within the context of being a good mother—but the gender ideologies and structures that shape the mommy bloggers arguments have been influenced by neoliberalism.

In the next chapter, I summarize the chapters of this thesis and present the implications of this research and my recommendations for future research.

CHAPTER 5: SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

Summary

The purpose of this qualitative study was to understand how much gender ideologies structures matter in individual knowledge construction when neoliberal ideologies are present for mommy bloggers involved in the GMO labeling movement. The leadership of the GMO labeling movement is primarily made up of white, middle class men. However, there is also a high level of involvement in the movement on social media and in blogs. Specifically, mommy bloggers have become very involved in advocating in favor of GMO labeling. Feminist standpoint theory would suggest that mommy bloggers would have a differing perspective from the movement's dominant perspective because their worldviews are shaped by their experiences as women. Study showed that gender ideologies are less influential than neoliberal ideologies on individual knowledge construction for mommy bloggers involved in the GMO labeling movement.

I reviewed literature on social movements, food movements, the history and emergence of the GMO labeling movement, critiques of food movements, inequalities within food movements, women's participation in food movements, neoliberal mothering and the privilege of choice, and literature on feminist standpoint theory. This literature showed that decisions regarding the food system are primarily made by white, middle-class men. The solutions proposed by food movements, like the creation of niche markets, for example, generally reflect the privilege of those who have the means to participate in alternative markets and vote with their dollars. When solutions focus on individual choice as a way to create change, only those with the means to make choices about what they purchase have a voice in the movement. A small, privileged group is making decisions about the food system that impact the lives of many who do not have a voice within the movement.

Chapter 3 explained the methodology used for this study. I used qualitative methods to get a better sense of the arguments made by the formal movement, countermovement, and mommy bloggers and understand why they were making the arguments. I used semi-structured interviews, participant observation, and content analysis to collect my data.

In Chapter 4, I presented the results of my data. I identified the major arguments made by the GMO labeling movement leaders and comparing the main themes to the arguments made by mommy bloggers, who use their blogs and social media as platforms for activism. The arguments made by the leaders of the GMO labeling movement and the mommy bloggers were very similar, with the exception of the mommy bloggers' discussions of good mothering as a reason to support GMO labeling. Each of the arguments was shaped by neoliberal ideologies, focusing on advocacy for more choice at the market level and the creation of niche markets where certain products can be purchased for a price premium.

This chapter discusses the findings of the study and reviews the research questions established in Chapter 1. I then discuss the implications of this study and conclude with my recommendations for future research.

Implications

As discussed in Chapter 4, the movement leaders and the mommy bloggers in this study have very similar arguments about GMO labeling. The arguments that both groups made were shaped primarily by a neoliberal ideology. The similarity throughout these arguments suggests that neoliberalism is highly influential in individual knowledge construction. While I had expected that the mommy bloggers would have arguments that differ from the dominant point of view expressed by the GMO labeling movement, this was not the case. Based on my understanding of feminist standpoint theories, I expected the mommy bloggers' individual

knowledge construction to be influenced by gender ideologies and structures. I thought that mommy bloggers' worldviews would be more strongly shaped by their experiences as women. Instead, I found that in this case the neoliberal ideology is stronger than any other experiences in shaping the mommy bloggers' arguments. The implications of this are twofold. First, the practical implication is that the GMO labeling movement is focused on advocating for increased "choice" rather than challenging the food system, which means that only those with privilege are considered in the movement's arguments. Second, the epistemological implication is that feminist standpoint theories are not relevant where neoliberal ideologies are dominant.

Advocacy for increased choice neglects to recognize that only those with privilege can make choices about food. This is especially true when considering that organic and non-GMO labeled foods typically come with a price premium. Not all people have the means to choose foods that cost more (Roff 2007). The GMO labeling movement, which is dominated by white middle class people, reflects the privilege of those involved. Those with privilege do not have to think about their privilege or consider the fact that not all people have access to alternative markets (Allen 2010; Roff 2007). I had considered that mommy bloggers might contribute a perspective that challenged the privileged viewpoint of the GMO labeling movement, and I thought mommy bloggers' perspectives would be shaped by gender ideologies and structures to reflect their marginal status. In finding that mommy bloggers' perspectives were more strongly shaped by neoliberal ideologies than gender ideologies, I realized that, through their blogs, the mommy bloggers perpetuate the same neoliberalized activism as the formal movement organizations.

Past research on food movements broadly, and the GMO labeling movement specifically, suggested that analyzing women's involvement using feminist standpoint theories could provide

a different perspective regarding what is important in the movement. As an epistemology, feminist standpoint theory can be used to explain how gender situates a person's knowledge. Women are able to understand the world in a different way since a person's history, beliefs, and experiences shape their worldview. Those who are not in positions of power have the experience of oppression, which gives them a different basis for constructing knowledge than those in power (Collins 1990; Narayan 1989; Sprague 2005). However, I found that mommy bloggers' perspectives were shaped primarily by neoliberal ideologies and did not differ significantly from the dominant perspective of the movement. In this case, feminist standpoint theories alone cannot be used to analyze the mommy bloggers' arguments since they do not differ from the dominant point of view. I found that in this case the neoliberal ideology is stronger than any other experiences in shaping the mommy bloggers' arguments. This is likely because the gender ideologies and structures themselves have been influenced by neoliberal ideologies such as agency, free-choice, and self-sufficiency

Recommendations for Future Research

In considering the information gained from this study, there are several opportunities to expand upon the findings and look at other issues related to inequalities within the GMO labeling movement.

First, I feel that there is room to expand on this study through a quantitative study of social media and online communities to understand how many people are involved in keyboard activism or support of the GMO labeling movement. As I was conducting the content analysis of mommy blogs I came upon several references to twitter meetings of GMO labeling supporters. Coupled with the understanding that the GMO labeling movement is a new social movement as

theorized by Buechler (1995), it would be useful to understand the extent to which supporters or activists have a solely online presence. Additionally, since the mothers included in this study, with the exception of one, were all white, middle-class, married women and the majority of the formal movement leaders were white middle-class men, demographic data on online supporters of the movement could provide useful data that was not in the scope of this study.

It would be useful to seek out people of color for interviews or look specifically to blogs by women of color to gain an understanding of whether people of color would also use neoliberal ideologies to inform their arguments or if their arguments would be more strongly shaped by other experiences and ideologies. This study focused primarily on mommy bloggers and leaders involved in the formal GMO labeling movement. These groups of people are both disproportionately white and middle-class.

Finally, I would recommend looking into the marketization of mommy blogs. This is not directly related to the research I conducted, but it was something that I noticed while collecting data. All of the blogs I selected for analysis included advertisements and disclaimers regarding the fact that the bloggers were paid to conduct product reviews. Through looking to literature relating to this topic, I found that marketers typically target white middle-class women's blogs (Lawrence 2009). I suggest two topics related to this that would expand the impact of this research. First, it would be helpful to know whether bloggers address certain topics more frequently because they are paid to do product reviews or advertise. For example, I question whether mommy bloggers who are paid to advertise for organics companies tend to blog about their support for organic and non-GMO foods in general. Second, understanding how the marketization of blogs compares to the popularity of blogs would help contribute an

understanding about why the most popular mommy blogs are almost entirely blogs of middle-class white women.

APPENDIX 1: CODEBOOK FOR ANTI-GMO/PRO-LABELING INTERVIEWS

1. Pseudonym _____
2. Interview ID number _____
3. Date of interview ___ / ___ / _____
4. Affiliation _____
5. Stance on GMOs _____
6. Stance on GMO labeling _____

7. Value-based arguments present

Theme	Indicator	Present?
Regulatory Concerns	There should be stricter government regulations on GMOs	
	Federal agencies are using outdated tools to regulate technologies	
	Regulatory laws need to be rewritten	
	Current regulations favor corporate agriculture	
	FDA's role is too passive	
	Mandatory regulatory process through FDA is needed	
Corporate control	GMOs are produced by a few large companies	
	Corporate control of food and agriculture is a problem	
	Control of seeds is almost a monopoly right now	
Right to know	Consumers should know what is in the products they purchase	
	There should be more information available to consumers	
	GMO labeling is a fundamental right	
Transparency	Products should be labeled for transparency	
	Things should not be hidden from consumers	
	Not labeling leaves the question: what are you hiding?	
Other	Other value-based arguments	

8. Science-based arguments present

Theme	Indicator	Present?
Frankenfood or meddling with nature	GMOs are not natural	
	The technology is only being developed to fix problems that other technologies have created	
	GMOs interfere with how nature should work	
	Genetic modification is the equivalent of meddling with nature	
	GMOs are an experiment with nature and life	
Distrust of corporate science	The corporations that produce the seeds also control any scientific testing that can be conducted on the seeds	
	Science is biased because it follows a corporate agenda	
Scientific uncertainty	There have not been enough trials	
	We do not know what the long-term impacts of GMOs could mean for	

	the future	
	Precautionary principle	
Environmental concerns	Increased use of chemicals (herbicides and pesticides)	
	Chemical drift	
	Superweeds (herbicide resistance)	
	Damage to ecosystem (bee and butterfly populations)	
	Corporate agriculture is not sustainable	
	Water quality problems	
	Soil erosion	
Health concerns	Allergens	
	High levels of toxicity in our bodies due to agricultural chemicals	
Other	Other science-based arguments	

APPENDIX 2: CODEBOOK FOR PRO-GMO/ANTI-LABELING INTERVIEWS

1. Pseudonym _____
2. Interview ID number _____
3. Date of interview ___ / ___ / _____
4. Affiliation _____
5. Stance on GMOs _____
6. Stance on GMO labeling _____

7. Value-based arguments present

Theme	Indicator	Present?
Regulatory Concerns	Patchwork (at the state level) regulation is bad	
	Regulation is already strict enough	
	Mandatory labeling of GMOs is not the answer	
	Voluntary labeling of non-GMO is the answer	
Good for farmers	GMOs are making farming easier for farmers	
	Farmers are making more money with the use of GMOs	
	Control of seeds is almost a monopoly right now	
Right to know	Consumers should know what is in the products they purchase	
	There should be more information available to consumers	
	GMO labeling is a fundamental right	
Other	Other value-based arguments	

8. Science-based arguments

Theme	Indicator	Present?
Scientific Certainty	There have been enough trials	
	GMOs have been vigorously tested	
	The science is proven and sound	
Environmental concerns	GMOs allow for pest control	
	GMOs allow for weed control	
	Superweeds are not a problem unique to GMOs	
Higher Yields	GMOs are proven to provide higher yields with less resources	
	GMOs are proven to produce higher yields in harsher environments	
Other	Other science-based arguments	

APPENDIX 3: CODEBOOK FOR CONTENT ANALYSIS OF “MOMMY BLOGS”

1. Blog Name _____
2. Blogger name _____
3. Date ____/____/____
4. Marital Status _____
5. Race/Ethnicity _____
6. Occupation _____
7. Stance on GMOs _____
8. Stance on GMO labeling _____

9. Value-based arguments present

Theme	Indicator	Present?
Support Local Agriculture	We should focus more on locally grown food than big agriculture	
Regulatory Concerns	There should be stricter government regulations on GMOs	
	Current regulations favor corporate agriculture	
Corporate control	GMOs are produced by a few large companies	
	Corporate control of food and agriculture is a problem	
	Control of seeds is almost a monopoly right now	
Right to know	Consumers should know what is in the products they purchase	
	There should be more information available to consumers	
	GMO labeling is a fundamental right	
Transparency	Products should be labeled for transparency	
	Things should not be hidden from consumers	
	Not labeling leaves the question: what are you hiding?	
Good Mothering	Feeding my family healthy food	
	Crunchy/granola mom	
	Selective of the products used around family	
Other	Other value-based arguments	

10. Science-based arguments present

Theme	Indicator	Present?
Frankenfood or meddling with nature	GMOs are not natural	
	The technology is only being developed to fix problems that other technologies have created	
	GMOs interfere with how nature should work	
	Genetic modification is the equivalent of meddling with nature	
	GMOs are an experiment with nature and life	
Distrust of corporate science	The corporations that produce the seeds also control any scientific testing that can be conducted on the seeds	
	Science is biased because it follows a corporate agenda	
Scientific uncertainty	There have not been enough trials	
	We do not know what the long-term impacts of GMOs could mean for the future	
	Precautionary principle	
Environmental concerns	Increased use of chemicals (herbicides and pesticides)	
	Chemical drift	
	Superweeds (herbicide resistance)	
	Damage to ecosystem (bee and butterfly populations)	
	Corporate agriculture is not sustainable	
	Water quality problems	
Health concerns	Soil erosion	
	Allergens	
	High levels of toxicity in our bodies due to agricultural chemicals	
Other	Other science-based arguments	

APPENDIX 4: INTRODUCTORY LETTER

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Department of Sociology
103 East Hall
Ames, Iowa 50011-1070
515-294-6480
FAX 515-294-2303

Dear [REDACTED],

I am writing to ask for your participation in an interdisciplinary USDA-funded study that is focused on developing new transgenic soybean cultivars. As part of this study, we are concerned with understanding consumer, business, and societal attitudes towards GMOs and how this has changed over time. We will accomplish this through in-depth interviews and a survey of key stakeholders, including consumer and environmental advocacy organizations, food retailers, and policy-makers.

The increase in state-level legislative efforts, together with food retailer initiatives, for GM labeling suggests a deepening concern regarding GMOs in our foods and I would greatly appreciate the opportunity to talk with you about these issues. You have been chosen to participate in this project because of your role as [REDACTED].

The interview would last approximately one hour. Your identity will remain confidential, and any presentation or publication that uses interview data will use pseudonyms. Your participation in this research is completely voluntary, you may choose to skip any questions during the interview, and may end your participation at any time.

I will be calling you in a few days to ask if you would be willing to participate in our study. If you have any questions about our research please feel free to contact me via telephone [REDACTED] or e-mail at tdandach@iastate.edu. If you have any questions about your rights as a research participant, please contact the IRB Administrator at Iowa State University, [\(515\) 294-4566](tel:5152944566), IRB@iastate.edu.

Your help and cooperation will be greatly appreciated.

[REDACTED]

Tamera Dandachi
Graduate Research Assistant
Department of Sociology
403B East Hall
Iowa State University
Tel: [REDACTED]
Email: tdandach@iastate.edu

APPENDIX 5: INFORMED CONSENT FORM

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Department of Sociology
103 East Hall
Ames, Iowa 50011-1070
515-294-6480
FAX 515-294-2303

Informed Consent Form

This research project is focused on understanding consumer, industry, and societal attitudes towards GMOs and is part of a larger project entitled: “Transgenic Approaches in Managing Sudden Death Syndrome (SDS) in Soybean”, which is being funded by the US Department of Agriculture. We will accomplish this through in-depth interviews of key stakeholders, including consumer and environmental advocacy organizations, food retailers, seed companies, agricultural organizations, and policy-makers. These interviews will provide an in-depth understanding of how different stakeholders perceive the social risks and benefits of transgenic soybean varieties.

Your participation is completely voluntary and you may choose to end participation at any time. You may skip any question that you do not wish to answer or that makes you feel uncomfortable. Identities of interviewees will remain confidential, and any presentation or publication that uses interview data will use pseudonyms. To ensure accuracy, all interviews will be audio-taped and transcribed.

For further information about the study contact Tamera Dandachi, Department of Sociology, Iowa State University, Tel: [REDACTED] or Email: tdandach@iastate.edu. If you have any questions about your rights as a research participant, please contact the IRB Administrator at Iowa State University, (515) 294-4566, IRB@iastate.edu.

By signing, I agree that I have been informed about the purposes of the research and how the results will be used.

Signature:

Date:

APPENDIX 6: INTERVIEW GUIDE

Can you please tell me about your involvement in the GMO labeling movement?

Can you tell me a little bit about your position at your organization?

General

1. Can you begin by discussing your (or your organization's) general view of GMOs?
2. What do you think are the **costs** and **benefits** associated with them for different stakeholder groups (farmers, industry, consumers)?
3. If you had to sum up in one sentence your core concern with GMOs, what would it be? Are these scientific, moral, social or economic concerns?
4. In general, how would you describe societal trends in relation to acceptance towards GMOs in the US? Do you think this has changed over time? If yes, why? Among which groups? What has driven this change?
5. Are there any ethical issues you see in relation to GMOs?
 - a. For example, in terms of who controls the technology (favors developed countries); focus on export crops rather than food staples; that farmers become more reliant on costly inputs (buying seed, chemicals), that it can facilitate the consolidation of the agriculture sector? How will farmers afford it? Who will finance it? The distribution of benefits?
6. What is your position on the (mandatory vs voluntary) labeling of GMO foods?

GMOS and Labeling

The past couple of years have seen a number of efforts for mandatory and voluntary labeling of GMO foods at both the state and national level.

7. In your opinion, what are the key issues related to labeling? [e.g. right to know; transparency; choice]
 - a. Are these efforts new? Who and what is driving them? Why might we be seeing an increase in initiatives by [NGOs, retailers, state legislators, safety] to this issue?
 - i. Do you think these efforts reflect a shift in consumer attitudes? (are consumers driving these efforts)? An increase in anti-GMO activism? (Why? By whom?) New market opportunities for producers or retailers that can create a niche market?
8. Do you think attitudes towards/acceptance of GMO foods by American consumers have changed?
 - a. If yes, why? What has driven this change?
 - a. What can be done to address consumers' concerns?

[2013 Rutgers Public Survey: "What information would you like to see on food labels that is not already on there?" 7 % said GM good labeling. When asked directly should GM foods be labeled 73% agreed.]

9. What are the costs and benefits of mandatory/voluntary labeling for different stakeholder/societal groups? [e.g. cost of food; confusion about safety; lack of choice; negative associations]
 - a. Do consumers have a ‘right to know’ what’s in their food if it’s not materially relevant?
10. We are seeing increasing efforts by some food retailers to introduce labeling or go GMO-free.
 - a. What is driving these efforts? Why now? Do you think market based approaches are an appropriate means for addressing the issue of GM labeling?
11. Why are advocacy groups focusing on GMO labeling and not greater government oversight and regulation?

Grassroots involvement

12. There have been several large organizations involved in the push for mandatory labeling, but we are also seeing a lot of grassroots organizations coming together around this movement. Where did this grassroots activism come from?
13. Why has it emerged now?
14. What are the strategies and arguments of these actors?
15. Are there any plans for further action since losing the ballot initiative in WA?

Regulation

16. What are some of the key concerns that you have about the govt regulatory system in relation to GMOs?
 - a. Do you think that there should be a mandatory approval process for GM foods?
 - b. Do you think the EPA framework of risk assessment and environmental assessments of engineered crops are reasonable?
 - c. Do you think that policies need to be strengthened to ensure segregation of GMO/Non-GMO?
17. What sort of mechanisms need to be in place as the development of GM crops is expanded to ensure food safety, environmental protections, non-GM markets (organic), and food industries that could be harmed by contamination?

GMOs and the Environment

18. What specific environmental issues, if any, are associated with GMOs?
 - a. [pesticide drift, cross contamination, effect on organic/non-GMO crops and markets]
19. There is considerable discussion in the media about “superweeds.” How is your organization responding to this discussion? What is the problem? What or who is responsible for this problem? What should be done to address this problem and by whom?

20. In your opinion, how are different stakeholder groups (e.g. farmers) responding to the problem of glyphosate resistance? Superweeds? Efforts to approve new herbicides (e.g. Enlist Duo)?
 - a. Is the problem of glyphosate resistance leading to a change in attitudes towards GMOs? Among whom?
21. There are efforts to bring to market new GM corn and soybean that are resistant to the herbicides 2,4-D and dicamba. What is your organization's view regarding this?
22. What role, if any, can GMOs play in helping us move towards a more sustainable agriculture system?

GMOs and Science

23. Is there any room for negotiation or compromise on these issues between proponents and opponents of GMOs?
24. There is some criticism that the anti-GMO movement is anti-science – the “climate skeptics” of the left (Mark Lynas; Slate magazine). How would you respond to this claim?
25. Any questions we should have asked that we didn't?

Contacts

1. Is there anyone you would recommend talking to? Other food producers? Grassroots organizations?

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