

The Failure of Economic Authority

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Summer MAP Project

Intro

In capitalist societies, there has been a divisive split between conservation and expansion, between traditions and money. These societies are not standing at the crossroads waiting to choose one direction. These choices have faced our parent's parents and will still exist for our children's children. We are constantly making choices, often without recognizing the dichotomy, between existing in harmony with nature or forcing nature to do our bidding. As illusory as our global dominance may be, the fact remains that for many individuals, our socially constructed reality—power, prestige, and entertainment—constitute far more meaning than harmonizing with our natural environmental setting. We live in a society that will always be in danger of legitimating the destruction of nature for perceived economic and social benefits.

There is no human activity where the desire to dominate nature is more evident than in farming. I interviewed corn farmers, hoping to find individuals that would conceive of their relationship to corn as either a product of their exploitation of the land or as a product of their working with the land. My goal was to show how farmers describe their relationship to corn in different contexts. For this project I interviewed corn farmers from the state of Iowa, which produces 9% of the global corn and over two billion bushels of corn yearly. Iowa has always been at the technological front for farming, and yet this project still shows that there are still a variety of different perspectives from a farmland that has been highly industrialized.

In order to analyze the viewpoints of these farmers, I will use the theoretical framework that Weber provided, with special emphasis upon his concepts of traditional and rational-legal authority. Weber wrote:

In the case of legal authority, obedience is owed to the legally established impersonal order. It extends to the persons exercising the authority of office under

it by virtue of the formal legality of their commands and only within the scope of authority of the office.¹

The distinguishing characteristic of rational-legal authority is that it is impersonal and can rely upon specialized offices for a ruling that will explain appropriate protocol for any action. Talcott Parsons noted that rational-legal authority provides a system through which all can be quantitatively measured and systematically compared.² However, I have opted to not use the terms for the purpose that Weber originally created them.

In order to apply Weber's theoretical framework more appropriately to my study of farmers, I have replaced Weber's rational-legal authority with economic authority. Economic authority is an adoption of the “rational” aspects of farming that can be explained quantitatively. Economic authority explains the desire of farmers to be economically successful regardless of the cultural, health, or environmental costs of their way of farming. The main driver of the increased consolidation of farming in Iowa as well as the increasingly high cost of farming inputs—fertilizers, machinery, chemicals, and land—is economic authority, which is often expressed as the maxim of more productivity and efficiency per worker to create more profit.

Contrasting economic authority, I have modified Weber's definition of traditional authority. Weber explained traditional authority by writing, “In the case of traditional authority, obedience is owed to the *person* of the chief who occupies the traditionally sanctioned position of authority and who is (within its sphere) bound by tradition.”³ Weber defined traditional authority as originating from the traditional order of society, the way that things have been. For my study, I had to alter Weber's definition, because economic

¹39 Weber, Max. “Power, Domination, and Legitimacy” from Power in modern societies ed. by Marvin E. Olsen & Martin N. Marger. Boulder, Westview Press: 1993

² Parsons, Talcott

³39 Weber, Max. “Power, Domination, and Legitimacy” from Power in modern societies ed. by Marvin E. Olsen & Martin N. Marger. Boulder, Westview Press: 1993

authority is able to gain legitimacy by being historically institutionalized. I wanted to develop a definition of traditional authority that could not be incorporated by economic authority, that was necessarily distinct. Traditional authority are the qualities other than making a profit that motivate a farmer including safety, health, taste, and community. Traditional authority, in contrast to economic authority, relies upon a qualitative evaluation that creates associations of inherent value, which can not be systematically compared.

Weber made clear that he considered both traditional authority and rational-legal authority ideal types, and all of the people with whom I talked followed a combination of both authorities, so they are placed upon a spectrum ranging from one extreme to the other. In general, larger high input industrial farming leads to a belief in economic authority, while smaller high labor family farming leads to a belief in traditional authority.

As farmers turn away from family farming and towards industrial farming, away from smaller low input farms and towards larger high input farms, they are becoming increasingly alienated. The alienation for the producer occurs when they market their corn on the open market, because they are no longer connected to the end use of their corn. They only care about how much money they can receive for their corn as a commodity. The consumer is alienated in turn, because they no longer have a connection to where the products that they consumer originate. They only care about low prices and not quality. Economic authority only values quality when it can be quantified by certification, such as the term “organic.” The majority of corn is fed directly to animals such as hogs, cattle, and chicken, but a significant portion of corn is also devoted to corn syrup, ethanol, and fibers. The utilitarian nature of corn is one of the reasons why

economic authority becomes so readily apparent when corn is marketed on the open market.

In truth, we are all disciplined by economic authority. Weber defined discipline as “The probability that by virtue of habituation a command will receive prompt and automatic obedience in stereotyped forms, on the part of a given group of persons.”⁴ We all instinctively know the significance of money and the value of property, so that we will not vandalize or damage property without first overcoming our “automatic obedience” to economic authority.

Weber identifies a third type of authority, charismatic authority. He writes, “[Charismatic authority rests] on [a] devotion to the exceptional sanctity, heroism or exemplary character of an individual person, and of the normative patterns or order revealed or ordained by him.”⁵ He continues, pointing out that “[Charismatic authority] cannot remain stable, but becomes either traditionalized or rationalized, or a combination of both.”⁶ I will identify two different ways that charismatic authority expresses itself in my study. The first is the persuasive claim to a moral imperative for farming. The claim of economic authority is that the farmers are producing to feed the world as they simultaneously make a profit, while farmers that follow traditional authority claim a higher quality of food, a closer connection to the people that they are feeding, and a closer connection to the land from which they are profiting.

The other way that charismatic authority expresses itself is when it undergoes what Weber termed routinization, which means that charismatic authority becomes

⁴37 Weber, Max. “Power, Domination, and Legitimacy” from Power in modern societies ed. by Marvin E. Olsen & Martin N. Marger. Boulder, Westview Press: 1993

⁵p. 215 Weber, Max. Economy and Society. Ed. by Guenther Roth and Claus Wittich. University of California Press: Los Angeles, CA; 1978.

⁶p. 246 Weber, Max. Economy and Society. Ed. by Guenther Roth and Claus Wittich. University of California Press: Los Angeles, CA; 1978.

institutionalized as either traditional or economic authority. There are many examples of the routinization of charismatic authority, from the public universities to organizations such as the Land Grant Institute and the Michael Fields Agricultural Institute.

Charismatic leaders do not necessarily represent either traditional or economic authority, but they typically will influence their followers in a particular direction.

All individuals are disciplined by economic authority, in that they have to succeed financially or else they will be deemed a failure. In the occupation of farming, the farmers that fail when analyzed by economic authority will have their farms repossessed. They will not be able to continue as farmers. We are not disciplined by traditional authority in the same way. Traditional authority can not have exterior values imposed, because it is closely connected to an individuals relationship to everything surrounding them, the context in which they are situated.

For my project I tried to represent as many different perspectives on corn that I could, which is why I talked to several people that would not classify themselves as farmers. I talked to them anyways, because they have important roles in the way that corn seeds are developed, the corn seeds that are eventually grown on Iowa farms. I also talked to a variety of different farmers, ranging from large acreage high input farmers to smaller acreage and low input farmers. The structure of my paper is intended to cover individuals that follow economic authority first, then traditional authority next, and finally the various people that defy the ideal types that I have created.

Using corn as the constant variable to show how individuals relate to their product, I am convinced that the large acreage high input industrial way of farming creates undeniable alienation for the corn producer. The focus of industrial production is yield, bushels per acre. The farmer sells their product to the highest bidder, and through

the process of marketing their corn, they lose their connection to the end product. In a sense, they become reduced to a cog in the industrial production process. Traditional authority, on the other hand, lends itself to traditional farming which is low input, high labor, and smaller acreage. I define this type of farming as family farming, and it lends itself to the empowerment of individuals in that they are able to reinforce their connection to their community and the food they sell. These farmers focus on quality not quantity. That is the struggle shown in this paper, the ongoing battle between the quantities and qualities. If you think the distinction arbitrary, I hope by the end of the paper you will understand the underlying differences that are vast and in many respects irreconcilable.

International Seed Companies: Bioprospecting or Biopiracy

A farmer that I interviewed, Howard McDonough, mentioned to me that I should get in contact with Evert Gerrish who, although retired, had once traveled the world researching corn for Cargill. I met Evert in his house, which is a short walk from my school, Grinnell College. Evert's official title for the 15 years he worked for Cargill was "Chief of the International Liaison Effort in Crop-Breeding." Monsanto bought out Cargill International Inc. in 1992, but could not buy out Cargill Domestic Inc. because of anti-trust laws. Those laws do not apply to international corporations.

Evert explained his job to me, "If something interesting happened in, let's say, one of our breeding locations in Illinois, I would ensure that the other research people in other countries were aware of that and the implication as to how it might apply to their efforts." Although Evert specialized in corn, he was also involved with "Sorghum and sunflower. And briefly with wheat and barley, which aren't traditionally cross pollinated." A large part of Evert's job entailed making sure that efficiency was maximized through

communication.

Even more interesting to me was Evert's intimate knowledge of how these seed companies would establish themselves in foreign countries and what they were looking for. When I asked Evert if they were looking for specific traits, he responded:

Yes and no. Basically, you are looking for diversity. By diversity I mean new blood to enhance the vigor and yield which happens whenever the new blood is brought in. But you are also looking for certain traits, for example disease resistances, which you can get from the tropical area. I should say, too, that we had a reverse effort in that we were taking corn belt corn that got fully temperate into the tropics and adopting them back to the homeland if you will. Certainly, it bore results. Basically, in developing hybrids for any crop you need diversity, unlikeness to bring in vigor. Since corn came from the tropics or Indians, a lot more diversity exists in the homeland than here.

Evert was a conventional corn breeder in that he was not involved with transgenics. An important distinction can be made between prospecting for genetic traits as opposed to prospecting for crop diversity. International companies like Cargill, at the time that Evert was working for them, wanted to increase the vigor and yield of their hybrids. As we will see later, that is still what motivates conventional breeders.

I asked Evert how a company would set up a program in another country.

Let's say you were going fresh into a country like Brazil, where there is existing corn breeding in universities. You would acquire all of the improved materials that had been developed from local varieties to start your own program. You would become familiar with the programs that the public institutions had, to see what they had done, how they had done it, to become more familiar with the materials that they used, which were basically the open pollinated varieties. Then you would start to make hybrids among the materials that you had acquired from the public institution. From that base, then you would have hybrids that you could sell commercially. But from that base you could also start your own improvement techniques to get proprietary materials, ever better hybrids.

After reading about biopiracy, I had an image of these international seed corporations sneaking around indigenous farms at night and stealing seeds to later analyze in their laboratories. In fact, the public universities made such activities unnecessary, although these companies were still appropriating knowledge that, even though it was consolidated in a college, was not cultivated there.

I was curious to know how Cargill, when Evert was working for them, would reimburse these countries. He responded:

They are reimbursed with higher yields. If not, we couldn't stay in business, because the competition among commercial companies is intense. Our hybrids are being compared [to our competition's hybrids] constantly... In our own programs we would always include the existing hybrids that our hybrids are selling against to know how we stand in relation to them so that we can release something equal to or better. This is intense. Otherwise, we wouldn't stay in business. We would just be blowing in the wind. The beneficiary is the farmer of course, but the company has to be profitable in order to give that service to the farmer. I immediately followed his explanation by asking, "So was Cargill concerned about exploitation of local farmers?"

"You would have to be concerned if you were perceived to be taking advantage of the farmer," he answered. "There are a dozen other companies that they could go to to buy their seed. There are instances of this happening, but it is short lived, because it is corrected almost instantly."

"By the market?" I interjected

"By the market," Evert agreed. "You can go to somebody else to buy your hybrid. The hybrids are competitive, but they are not that much different. I mean there is no major breakaway such that this company embarrasses its competitors. So if you felt that you have been taken advantage of in any way—and there is any number of ways that someone could come to have that feeling—you could just switch your affiliation to another source of seed. *[laughs]* Within months it is very quickly rectified. And by the same token, the companies don't want to have this happen, because this will continue to erode their credibility. That is the beauty of the system: competition. It's almost all beneficiaries."

These large seed corporations feel no need to reimburse farmers that have helped to cultivate the biodiversity the seed corporations exploit, because these seed corporations

provide an improved product for the farmer. If the corporations had their access to biodiversity limited, this limit would lessen the added productivity and vigor that they can incorporate into their seeds. To these companies, diversity is only of value when it is incorporated into the economic system.

People throughout the world are worried that indigenous people are coerced into becoming reliant upon economic authority. Some people say that they are having their own seeds sold back to them.⁷ Using the example of hybrid seed production in a foreign country such as Argentina, Mexico, or Brazil, the process works like this: Cargill moves in and develops a seed that can yield more than twice as much as open-pollinated varieties. The farmers in a particular kin group, village, or region eventually adopt these seeds and makes more money than their competitors. The neighboring kin group, village, or region see the additional money that can be made and adopt hybrid seeds as well. Traditional farming methods are lost. Where these tribes were once self-sufficient, they are now reliant on external markets so that they can continue to buy from external seed companies.

At the end of my conversation with Evert, I asked him if he had any closing statement, and he surprised me by talking about the exploitation of indigenous people, the very subject that these companies seem to overlook.

I wish the poor Indian could have had more of a part of it. The poor sucker. He developed a lot of our crops and we took them from him and take all of the credit. But he domesticated so many crops out of need. We took them without a thank you. Look at the things he developed: corn, tomato, beans, squash, pumpkin, sunflower. I'm just talking about the American scene, but if you get into South America, Central America, there are other crops that he developed from wild ancestors without even a thank you. I feel bad about that. I followed up by asking, "Do you have any solutions about how to help out?"

"The Indian, show him more respect. Too late. I wish he could have been more of

⁷Vandana, Shiva

a part of... Obviously, the transition to the modern world had to have taken place. He couldn't have existed here in isolation any longer than he did, but I wish he could have been made a part of it better. We could have done a much better job.” Evert does not acknowledge that the battle for indigenous rights is still ongoing, which allows him to rationalize the continued exploitation of indigenous people. Evert knows that indigenous people have been treated unfairly, but can only lamely assert that their was inevitable. He knows intuitively that indigenous people have been treated neither justly nor morally.

Inbred Line Development

Lance Veldbloom, is a corn breeder for Monsanto in Williamsburg, about an hour north of Grinnell. Lance invited me out to the nursery so that I could see the cross-pollinations in action. Lance has a PhD in plant breeding. I found him to be both engaging and knowledgeable. He also fills in the link between the international research by people like Evert Gerrish, and the local production of commercial hybrid seeds by people such as Al Henderson in Grinnell, the site manager of the local Monsanto plant.

Hybrid seed corn that the farmers in Iowa purchase to plant is the product of two separate inbred varieties. Lance refers to them as “lines,” and his official title is “Line Development Breeder.” Basically, Lance creates new hybrids that are then self-pollinated to create new inbred lines. His work involves a lot of trial and error. He said, “Typically, we throw away 90% of our work. It is a failure every year. Hopefully, something comes out. But through that process you start out with ten thousand, keep one thousand, keep one hundred, keep ten. One good line comes out.”

Yet another way to understand the process is through the “blow up” factor. Lance produces the lines that are crossed in hybrid production. If Lance plants an acre of inbred

seed, he can produce enough seed from that acre to plant one hundred and sixty acres of land for precommercial corn, corn seed that is on cross pollination away from being sold to the farmer.. From the one hundred and sixty acres, after his line is crossed with another line, the Grinnell plant can harvest enough hybrid corn seed that they can sell to farmers to plant 32,000 acres. Lance explained:

The US grows 80,000,000 acres of corn a year. If it was all this production, divided by 32,000⁸, you need about 2,500 acres of inbred production a year. So we have about 2,000 probably in breeding. We have about 60% market share, so we have a good chunk of it.

It would only take 2,500 acres to produce all of America's precommercial or inbred corn seed, according to Lance's calculations. Of course, this overlooks all of the capital that is invested in inbreds that never pan out, the six generations of self pollination that are necessary, and many other expenses.

The infrastructure that a corporation such as Monsanto operates with is immense.

Lance explained to me some of the resources that are available to him and other breeders:

We have research stations located throughout the Midwest. We have three stations in Nebraska, three in Iowa, two in Minnesota, one in Wisconsin, two in Indiana, three in Illinois, one in Ohio, one in Ontario, Canada, Leesburg, Georgia. Then we have winter sites where we go [during the winter] so we can get two generations a year to speed up the process in Puerto Rico, Puerto Vallarta, Mexico, Hawaii, Chile that we also use for breeding just for North America. Actually, what we are doing now, everything that I select from yield down from this fall goes to winter and gets another cycle on it, so we go through two and in some programs 3 generations in a year of the improvement process. We're quite a large effort, and Monsanto is one of the largest companies doing it.

Lance later explained how Monsanto benefits from growing their corn in different locations:

When you go to Hawaii it is 85 degrees the day you plant corn. In Iowa, it is 50 degrees that day in May. Corn's maximum growth is 86 degrees, but it grows at 50 degrees. Every degree from 50 to 85 degrees it keeps growing faster. Once it gets over 85 86 degrees it maintains the same growth, because even though you have more heat than that, it needs more moisture to keep hydrated and uses energy that way. It will grow from about 86 degrees on it grows at the same rate.

⁸Most farmers plant around 32,000 seeds per acre.

When you plant corn in Hawaii it is 82 degrees. In two days it is out of the ground. In Iowa in two weeks it is out of the ground. In our winter nurseries we can get it out of the ground in about one hundred to one hundred and five days. Here it is more like one hundred and twenty days. If we just leave special stuff there, we can get 3 generations, because it takes one hundred and ten days each cycle. Three hundred and thirty days a year with a week or two in-between for shelling it and repackaging it. We can get about three cycles a year in our winter nursery to get through those six or seven generations. But it costs about twenty times as much to do it there.

As far as I can understand, inbred line development has constant feedback so that the latest successful inbred lines are also the best candidates for use in developing a new line. Any company that does not have a place where they can get in a winter cycle is not going to be able to compete, because it will take them twice as long to develop new lines. The discrepancy in the product will only be augmented with time as corporations like Monsanto and Dupont are able to improve their products twice as fast, every year. The Iowa farmer is basically reduced to a choice between these two corporations when choosing seeds. Couple the cost of inbred production with the staggering cost of bioengineering, and it becomes easier to understand why there are two corporations that can dominate the marketplace.

Monsanto and other corporations relate to corn simply as a commodity. They see a product that can be exploited for profit. By encouraging technological innovations, Monsanto benefits the farmer, or at least this is what Monsanto claims. The commodification of corn is especially apparent here, because Monsanto owns patents on the corn lines that they develop. They own a biological organism. I asked Lance whether he values corn differently from its value as a commodity, and Lance's response was particularly revealing to me:

Somewhat it's a commodity to me, but just a more expensive one. But if you find the right one, the right one row in there could be worth thirty million dollars to the company by the time it has its lifetime and is used in hybrids and sold to farmers. Each row? No. But the right pick. Every line that we do get and develop gets a patent on it, so we hold patents on all of our finished lines that are commercial.

The one good one might be selling one hundred million dollars a year of seed corn. If you can find that one that's worth that, there's a lot of value. A company like Monsanto has the size that it can sell that much to have the one right one that's worth multi-millions of dollars. And it started with one plant in the field. Some people get worried that they lost a single plant thinking that every plant has that potential, which potentially it does. When you look at enough of them, you know, it's like the lottery. The odds are, only one of these are [winners]. And if I lose one, it's probably not that one. But then you get your data and say, oh [*sigh*] I had this great yielding thing. I come out to the nursery and there are no ears there. That happens all of the time to a breeder.

However Lance still values his corn quantitatively. He just feels that the inbred lines that he develops are worth more money than other commercial or commodity corn. Every row that he grows has a patent on it, which implies that Monsanto's corn is no longer merely a biological organism. Their corn is a product. Economic authority encourages the commodification of everything, because economic authority endorses a system in which all can be systematically quantified and compared. Farmers sign a contract that allows for Monsanto to prosecute them if they save any seed.

What Lance values in the inbred corn lines that he develops is a reflection of Monsanto's response to consumer desire: yield. Lance does not have the freedom to try to develop plants that he think will be aesthetically pleasing, have more ecological value, or have more nutritional value. Lance explained, "You can improve everything else, and if it doesn't yield more it's over. Most of the stuff doesn't yield more. We look at thousands of lines every year, but only a few make it through. The key driver no matter what is yield."

Certainly, if Monsanto can market the corn as having special features, the farmer can receive a premium. But if the other value in the corn is not accompanied by higher yield, it will not be widely adopted. When I asked Lance about farmer planting corn from which they can receive a premium for nutrition, Lance explained the farmer's economic reasoning:

I can get a 5 cent premium for more nutritious corn on the same bushels. So if we want to use the number 200 bushels, I get 5 cents more. I'll have 10 bucks more

per acre. I go fill my tank, it takes two gallons of diesel just to combine an acre so that's seven bucks. [On the other hand], if I produce twenty bushels more at the same price, 10% more instead of 5% price more, I'll make \$40 more. So more profit. If I can produce more, 10% more at \$2 is better than 5% more on a premium for a gradient, so that's the key issue. The key driver is always more yield. Now there are other things, so what leads to more yield? If it stands better that helps lead to more yield. The next level of traits are it dries down. With high fuel prices they don't want to spend gas to run a burner to dry the corn in the fall. We live in a society that is disciplined by economic authority, and nowhere is it more apparent than in agriculture. Whether Monsanto is creating the demand or responding to the demand, big operators and big corporations all seek the same goal—high productivity—because it gives them all a larger profit.

Lance drove me around the operation, and at a few points we got out to look at the corn. He explained to me what stages the corn were in and even shook some pollen off on my hand. His passion for the plant is palpable. At one point he declared, “For me it is my life. That's all I work on is corn.” Standing out there on the hot July day I shared in his passion for the plant. At the same time, he is helping to cultivate a certain vision of the plant and not one of his own making. He is breeding for yield and other traits that directly effect the profitability of growing corn for a farmer. He is playing an active role in the industrialization of agriculture and technological innovation that is pressuring farmers to either to “Get big or get out” as Earl Butz, the Secretary of Agriculture under President Nixon, prophesied.

I asked Lance to compare traditional and modern ways of farming. Lance responded, “It's interesting, because farming, I would call it a nostalgic occupation.” I agreed with him and then he continued:

There is just a feeling of every American that farming is a way of life versus an occupation. But if you put any American in Chicago saying you have to run an office without computers and using typewrites... That is my picture of a traditional office, yet nobody would do it. Only being able to produce one page every four minutes hand typing instead of a computer can run off fifty pages a minutes a printer. So if you look at any occupation, would you say that the

government should subsidize secretaries to type all of our paperwork, because that is a traditional viewpoint. And same with like the hog farms. Do you want one farmer only to raise twenty sows and a hundred pigs every two months and pay for that or is it wrong to have him have a thousand sows and give efficiencies of buying his feed and supplies and less electricity used because more in one building to produce that food. Farming is probably one of the few occupations that there is such a large nostalgia around it that is not based upon reality. Any other industry is not going to stay with technologies of forty years ago as their equipment, their scale of production, and those things. Did GM say you have to produce all of your cars without robots and keep hiring twice as many workers so you can hand buff the finish at the end and that? It's a strange term, farming, in that concept that most people that don't do it hold them to a different regard than they would any other operation. A little bit of my viewpoint, so modern farming is modern any job. I don't use my original Gateway 2000 1988 computer today that has 2 MB of memory.

Lance's speech raises important points about the virtues of modernization, centralization, and industrialization. Using the example of the printers, secretaries are saved days of mindless labor by the use of the computer and printer. He makes an important assumption, however, by claiming that bigger is better with both the example of farming equipment and the hog confinement facility.

Economic authority is able to effectively coerce individuals into using the latest technology available. At one point in our talk, Lance said, "In corn there were farmers that wouldn't put hybrid corn in because it was the modern technology. Now, for some people the argument is, you can only have hybrid corns because that's the traditional and you can't have GMO. Twenty years from now is it the original GMOs are the okay traditional ones, but the new fangled stuff is..." Farmers have been buying seeds since the 30's from seed companies. By 1940, practically all corn planted in Iowa was a hybrid variety. Many farmers around the world still plant open pollinated corn, but if they ever attempt to compete in the free market with the Iowa farmer, they will find that their product is not competitive.

Also interesting is Lance's claim to economic authority:

We can look at [sustainability] as I can be self-sufficient, and a few people can be

that. The other sustainability is, we have to feed six billion people and supply fuel for that [population]. So how can you do that the best way? So agree or disagree usually non technology methods of producing corn will produce less corn per acre. So to feed 6 billion you need more acres. So do you want to use more marginal ground or rain forest to continue at the levels that we have had 20 years ago or use technologies? And America grows 75 million acres of corn. I believe in the early 1900s it was closer to 100 million acres and we produced 30% of what we produce today on more ground. So one thing technology has allowed is to use our best ground to produce a lot of corn. To be more effective with corn, commoditize it.

According to economic authority, farmers are obligated to feed the world. Farmers that focus on local self-sufficiency are ignoring the plight of people that are starving around the world. Here is the intellectual morass that obscures many of the issues concerning the industrialization of food. If the claim by corporations that they are trying to feed the world is only a justification for increased profit, then their claim should be rejected. They should be decried for decreasing local self-sufficiency, increasing global dependence, and finding additional uses for crops, all to their benefit. On the other hand, no one can argue that there have not been amazing increases in yield, which has allowed for the American consumer to gain access to inexpensive food.

The Seed Corn Plant Manager

Al Henderson is the site manager for the Monsanto seed production plant in Grinnell. He was kind enough to visit with me and take some time out of his busy schedule. I showed up to the facility and Al showed me back to a conference room. I was worried, because he seems to have a very regimented day, and so I tried to quickly cover as much ground with him as I could.

Al is a tall, broad-shouldered man with a commanding girth, which is fitting for his role as the manager of a Monsanto corn seed plant. He speaks in a deep baritone voice that reinforces his size and powerful position within the company. Early on in our talk, he

explained what his plant produces: “Monsanto produces over a hundred varieties of seed corn. At this particular facility we will raise a portion of that, somewhere between thirty to forty varieties. It just depends on what the crop line is for a given year.”

I then asked him how he thought that the Round-up Ready and Bt technology traits that his plant produce effect the environment. He responded:

As far as the effect on the environment, whether it is Round-up or the Bt Advanced, I think it's a very positive effect. Round-up herbicide is a contact herbicide that doesn't get incorporated into the soil, doesn't get attached to the soil particles, doesn't leech out of the soil, and therefore is a much, in my opinion, safer type herbicide system than some of the other herbicide systems. On the Bt side of it, for insect control, the alternative to control of root worms is [applying]chemicals. Where farmers plant corn on corn, they'll be putting on several pounds to the acre, ten to fifteen to twenty-five pounds of sometimes as toxic as the skull and crossbones type insecticide to control insects. So we're eliminating the application of those pesticides, insecticides. Clearly, Al sees the evolving technologies as having a very positive effect on the environment. He compares the current herbicides and pesticides to older herbicides and pesticides. By comparison, he argues, the environment is being harmed far less than it was before. He does not compare the use of Round-up herbicide to the use of no herbicide, which is also a viable alternative. By that comparison Round-up herbicide has a negative impact on the environment and human health.

Al sets up contracts with local farmers to create seed corn that will later be sold to farmers. His plant takes inbred varieties, such as the type that Lance develops, and cross-pollinates them. They then distribute their seed corn throughout America and the world. The farmer that is contracted to grow seed corn for Monsanto changes from an independent producer to a salaried worker.

I asked Al, “How specific are the directions for the farmer?”

“Pretty specific,” Al responded. “The contract requires that the farmer provide the land and the resources fertility. We control labor, equipment to plant and maintain that

crop. And then they plant. We give them planting instructions so that they plant it appropriately for the particular seed variety that they have been assigned.” We are witnessing here one instance of the changing role of the farmer. Corporations incorporate farmers as a cog in their system of production. The worker status of the seed producer is not as prevalent in corn production as it is in the hog and chicken industry. Oftentimes, farmers running animal confinement facilities will have no local knowledge and are guided completely by their company's guidelines.

These corporations believe that since their products maximize productivity and efficiency, the only way to effectively farm is by using their products. Like Lance, Al also thinks of sustainability in global terms. He said:

We're pretty fortunate in the US to not go to bed hungry most nights, the majority of us. And there are places in the US where people go to bed hungry, but also around the world where there is a lot of hunger. I think we need to get these seeds to the rest of the world. One concern I have is some of the third world countries, for whatever reason, haven't adopted or accepted some of the trait seeds, because they think that it is, or their understanding is that it is, not beneficial or could hurt the environment or whatever. At the same time, there's hundreds of their population if not thousands dying every day from starvation and hunger. To Al, the cure to world hunger is Round-up Ready and Bt Advanced corn. He is convinced that his corporation's products are the best way to maximize productivity and efficiency. He envisions Monsanto in the savior role, coming in and liberating people from their primitive farming methods of the past. These corporations do not just see themselves as justified in selling their seed to other countries, but they also feel a moral imperative to export their seed globally.

Even though traditional and economic authority are ideal types, Al accepts economic authority as far more legitimate than traditional authority. His preference is obvious in his closing statement:

The same people that oppose this science [of genetically modified seeds] are the first people to be smoking a cigarette or driving a car. There are people killed

everyday in cars and automobiles. Just wearing clothing that may or may not have come from a third world country that some very poor—there's just so many issues in this world, and for them to pick up on this one and still tolerate the others [is frustrating]. It's kind of similar if you go to an Amish community. They drew the line at where they wanted to develop, and they will pull a bailer through the field with a team of horses, but they'll have a gasoline motor on running the bailer. Why do they accept this but they don't accept that? I just struggle with how people draw the line.

Al uses examples of people smoking cigarettes, driving cars, and wearing clothes that were made in sweat shops as parallel to his operations, because they are all justified by economic authority. According to Al, an individual can not reject immorality in one part of the system and still accept immorality in other parts. The all inclusive nature of economic authority is why the Amish are particularly confounding to Al, who struggles to understand people that follow traditional authority more than economic authority.

The Industrial Farmer

The size of farms has increased steadily since the end of the Great Depression. As farming enters the 21st century, the trend towards consolidation among large operators seems likely to continue.⁹ Mark Dimit, a farmer from the local Grinnell area, farms about 3,400 acres of corn and soybeans with an additional couple hundred acres of alfalfa (hay). Mark invited me to ride with him in his tractor, and it was a hot day. I was waiting for him in my car with the air conditioning on max and applying generous amounts of sun screen. I should not have worried, though. I called Mark on my cell phone and he confirmed that I was at the right spot and that he would be there in several minutes. He pulled up in a huge sleek green John Deere tractor that was more than twice as tall as I am. As Mark ushered me up the small ladder, I found that there was extra seat for me in the left part of the cab, but that was not what made my day. The air conditioning was

⁹p. 59 fig 5-4. Gardner, Bruce L. American Agriculture in the Twentieth Century. Cambridge, MA. Harvard University Press: 2002.

truly a blessing from technology. As much as I appreciate traditions, I was only too happy to avoid sweating it out in the sweltering 95 degree heat of Iowa in late July. I was also surprised at the maneuverability of Mark's tractor. Though huge, the tractor was far from lumbering. All we were doing today, Mark said, "is just custom work." He was baling 27 acres of hay, and we chatted while he worked.

Mark works through the tractor and a combine that is attached to the back of his tractor. They augment the amount of work that he can accomplish. Without his tractor there is no way that he could farm anywhere near the number of acres that he farms today. The work can at times become monotonous. Mark said, "Cell phones are a wonderful invention. Especially when you are out here with nobody else to talk to. You can only listen to the radio so long." Baling the 27 acres with him seemed a breeze. We were done in under an hour and a half.

Other than farming his own acres, Mark mentioned that he does custom work to make sure that he can make ends meet:

The last few years I still work for Monsanto picking seed corn in the fall. I mean that is still farm work, but at least it is not my [farm]. I get to work for somebody else for once, which is kind of nice. I know you don't think so, but every once in a while there is nothing wrong with just being told what to do. Relieves you of a lot of responsibility [laughs]...We pick seed for about three and a half weeks seven days a week you know fifteen hour days. It gets old, but they pay very well, number one, and number two it helps make a tractor payment. It's one of those jobs where every year you think, oh I am not going to do it again? And then you think, well, why do you want to turn them down? You might need that money. While there is no evidence of a direct causal link between the custom work that Mark does and the high tech equipment with which he farms, in some cases he may only be presented with the illusion of a choice. The industrial farmer who is forced to adopt more and more productive equipment often still finds themselves unable to produce enough.

Karl Marx, although he was writing of factory workers and not industrial farmers, provides a useful description of how increased production fails to liberate producers. He

writes:

The worker puts his life into the object, and his life then belongs no longer to himself but to the object. The greater his activity, therefore, the less he possesses. What is embodied in the product of his labor is no longer his own. The greater this product is, therefore, the more he is diminished. The alienation of the worker in his product means not only that his labor becomes an object, assumes an external existence, but that it exists independently, outside himself, and alien to him, and that it stands opposed to him as an autonomous power. The life which he has given to the object sets itself against him as a hostile and alien force.¹⁰

We can conceptualize corn as an autonomous power that exists outside of Mark because, whether or not Mark chooses to produce over a thousand acres of corn, there will still be all of the infrastructure in place that ensures corn's continued production: seed corporations, tractor corporations, chemical corporations, fertilizer corporations, and government subsidies. Mark is exploited by agribusinesses, and even the subsidies benefit the corporations more than they do him. These subsidies ensure a constant demand for corn producing products so that the farmer does not respond to the market's natural demands.

With advancing technologies, farmers are greatly empowered, but also face new forms of alienation. Marx writes of two different aspects of the alienation of labor:

(1) The relationship of the worker to the product of his labour as an alien object that has power over him. This relationship is at the same time the relationship to the sensuous exterior world and to natural objects as to an alien and hostile world opposed to him. (2) The relationship of labour to the act of production inside labour. This relationship is the relationship of the worker to his own activity as something that is alien and does not belong to him; it is activity that is passivity, power that is that is weakness, procreation that is castration, the worker's own physical and intellectual energy, his personal life (for what is life except activity?) as an activity directed against himself, independent of him and not belonging to him. It is self-alienation, as above it was the alienation of the object... Alienated labour alienates (1) nature from man, and (2) man from himself, his own functions, his vital activity, it also alienates the species from man; it turns his species-life into a means towards his individual life.¹¹

The effect of alienated labour is that individuals are alienated from both nature and their

¹⁰p. 127 Marx, Carl. Karl Marx: Economy, Class and Social Revolution. ed. by Z.A. Jordan. Charles Scribner's Sons. New York: 1971.

¹¹p.9 Marx, Carl. "Alienated Labour" from Social Theory: Roots and Branches ed. Peter Kivisto. 2nd ed. Roxbury Publishing Company; Los Angeles, CA: 2003.

communities, and alienation is more present in individuals that express solidarity with economic authority than individuals that express solidarity with traditional authority. By Marx's definition, alienation is apparent in the product of an individual's labor having power over them, which is a type of alienation that Mark experiences acutely when he markets his corn. The other kind of alienation is apparent when a worker's activity becomes alien to them. I believe that Mark experiences this kind of alienation as well, although not to the same degree, because he works with sophisticated technology that, especially when it malfunctions, operates as a foreign and alien force.

At one point, Mark elaborated on the difficulties and benefits of the technology that he uses:

Planning and spraying is even worse. I have got monitors thrown all over. A lot of people who don't embrace technology, they just don't like that sort of thing. That's why they hire professional applicators to apply their herbicides. Also, it is very expensive to have that equipment. It is just like your guys's computers and stuff. They only last two, three, or four years and then there is something out there that is so much better you don't even want to use the old stuff, because the new stuff will pay for itself. But the new stuff is here to stay. There is absolutely no doubt. I don't need a tractor that steers itself, because I still have to be in here to operate it. We don't have fields like they have in California and Kansas where it is the same length, every row, every pass is the same length. But I do need to know where I am at on the satellite. If I run out of product I come right back to that spot. And yeah I got, not in this tractor, but I carry flags so that I can put a flag down. But to be honest with you, since I have got GPS I don't want to do it. GPS takes me back within a few feet. That is good enough for me. I know exactly what I am planing for each row. If a piece of the tape on the bag falls in my planter, I know it. Because as we are planting I know there is something in there, a piece of corn stalk or just stuff you didn't know before. But it is also the kind of stuff just drives you nuts. You are in a hurry you want to go go go go go, and what in the hell is wrong with this row? It isn't planting. What could it possibly be? So sometimes electronics are bad.

The sophisticated technology that Mark uses for his tractors, monitors, chemicals, combines, and chemical applicators are beyond his full understanding. He understands how these technologies function, but is reliant upon external inventors and repairmen to operate with such sophisticated technology. Mark is correct when he acknowledges that

these technologies are “here to stay.” The high input style of production that Mark employs will only discontinue if it becomes no longer economically profitable, which will only occur if either oil prices skyrocket or farm subsidies are discontinued.

By producing corn on such a large scale, Mark becomes a cog in the industrial production process, no longer confined to even the industrial food process. Mark explained how he is disciplined by the market's demands:

I don't think ethanol is going to live long term. First of all, we're going to need food first, fuel second. And once ethanol starts taking away from the food there is going to be some big changes. Right now, because we have such a surplus of corn nobody cares. [Even if] we got a surplus, we really don't. It's going somewhere. They are going to make everything we grow this year into ethanol. Whoever was using that corn before, what are they going to do? Something.

Since Mark values economic authority—how much money he can make per bushel—he does not have the ability or need to control how his corn will be processed. He is solely a corn producer. Mark grows crops that have many industrial uses, which causes him to be alienated from the products of his labor. His current relationship with his corn stops once he finishes producing and marketing it. He is a necessary step for industrial production that provides raw materials, but through the process he is reduced to an assembly worker. The vertical integration of industrial production assures that unless he values something other than economic authority, Mark will not care whether his product is sold to corn syrup factories, ethanol factories, or confinement facilities. Since Mark is disciplined by economic authority, it is hard for him to identify with the finished products such as soda, meat, or ethanol. When pondering people who used to purchase his corn for livestock will do now that his corn is being used for ethanol, Mark asserts apathetically that they will do “something.” The insulation between producers and consumers creates alienation for both.

One method by which Mark tempers economic authority is through his social

standing as a farmer. Mark said of farming:

It's a really crazy business, because the guys you are having lunch with are the same guys you are bidding against to buy a farm after lunch or they are trying to sell you seed for one price and you are trying to buy it for another. You're still friends. The only way that you end up not being friends is if you lie or cheat. Only once and then it is over.

Mark's description of farming portrays farmers as competing businessmen, certainly not your idyllic farmer. Along with a moral responsibility to be honorable in business, Mark also believes that maintaining soil fertility is more important than maximizing profit. He said:

There are things that I could be doing that would save me a lot more money, but they are not necessarily the right things. You know, if I rent your farm, for example, cash rent, and you live in Washington state, you only see me once every two years. You are happy as long as I send you a check, but in the meantime I am not putting any fertilizer back in your farm. There is nothing that says I have to unless we have a contract stating I do, but it still doesn't make it right.

Economic authority is expressed directly through contracts. The fact that Mark overlooks contractual boundaries and instead focuses on stewardship of the land shows that he is not entirely dominated by economic authority. However, were Mark to not fertilize the land, he would be acting against his own self-interest by ruining land that he might rent again or by damaging his reputation through being an irresponsible tenant. Mark's conception of being a socially responsible farmer is closely tied to his allegiance to economic authority, which glorifies the honorable businessman.

Although Mark chooses to be a responsible tenant, that does not mean that he chooses to farm in the most environmentally responsible way. On his second application of herbicides to his corn, Mark said, "I like to keep a little Atrazine with it, a pound to a half a pound." Earlier in the interview, Mark said of Atrazine, "It's not written down in a book anywhere or anything, but it is a well known fact among people using it that if I put a pound of atrazine on my corn this year, I'll probably grow better beans the following year." Atrazine is classified a Restricted Use Pesticide (RUP) because of its penchant for

getting in the groundwater and its negative health and ecological effects.¹² Economic authority legitimizes the use of Atrazine, which makes it hard for a farmer in Mark's situation to reject it for health and environmental reasons. The main reason that Mark finds for rejecting economic authority is the farmer's ethic of doing honest business and maintaining soil fertility for future farming.

At the end of the interview, Mark expressed his bitterness about marketing corn as opposed to producing it. He said, "I would much rather talk to you all day long about corn varieties and where we are going to plant them than I would whether we sell December 2008 corn or do we go out to September... I'll be honest, you would probably be a better marketer than I would."

"I don't know about that," I interjected.

Mark continued:

That is where the professionals have the advantage. They are not [connected to their crop]. You ask if there is a spiritual connection. I don't know if it is exactly spiritual, but you are still connected to it. You are growing it. You are producing it. You are hauling. My billion babies are out there in the field growing, and they are not looking to what is happening in seventeen states, around the world, and ADM [Archer Daniel Midlands Company] is going to use this many billion bushels and ethanol is going to use this [many bushels]. Professionals are just looking at it very objectively. You'd be a better marketer. And I am out here dying. Son of a bitch. It hasn't rained now for a good solid ten days. It is hotter than Hades. My babies are being hurt and I don't like it. So I am really not motivated to sell any corn or beans today. And that's where I get hung up. Mark does not appear to be alienated when he is growing his crop, but the alienation appears when he sells his "billion babies." There was contempt in his voice for the fact that I could make more money than Mark if I were a superior marketer. Although Mark quickly added that he could "outgrow [me] any day." He values being an efficient producer more than being an efficient marketer, because the marketing is where Mark parts with his corn as a commodity that is sold to the highest bidder.

¹²Exttoxnet <http://ace.ace.orst.edu/info/exttoxnet/pips/atrazine.htm>

By listening to Mark talk about his corn, I can tell that he empathizes with it. Mark says that he gets “hung up” when he is “not motivated to sell any corn or beans.” He does not want to sell them because he is upset that they are not growing well. Mark understands the ideal farmer that is disciplined by economic authority. “They are just looking at it very objectively,” he said. Mark still maintains his connection to the land and to his crop, and many farmers believe that is a mistake. Being connected to the land causes farmers to express their solidarity with traditional authority, which economic authority derides as irrational and inefficient. In order to give more legitimacy to traditional authority, we must first define it, which is the goal of the following section.

Unpacking Tradition:

Perhaps the most difficult part of my project is defining traditions, but providing traditional authority with an ontological basis is necessary so that within my analytical framework I can give traditional authority the same legitimacy that I accord to economic authority. First I will use other thinkers, Max Weber, Max Horkheimer, Theodor Adorno, Aldo Leopold, Shiva Vandara, Wendell Berry, and Wes Jackson, to show how other scholars have explained traditional authority. Then I will attempt to establish my own definition.

Weber writes in The Protestant Ethic and the Spirit of Capitalism, “People do not wish 'by nature' to earn more and more money. Instead they wish simply to live, and to live as they have been accustomed and to earn as much as is required.”¹³ Weber asserts that humans are “by nature” content, and that economic authority motivates individual to earn as much money as possible, ruining their natural complacency. Weber also writes,

¹³p.23 Weber, Max. Protestant Ethic

“People are paid according to the fruits of their labor. In agriculture, for example, the harvesting of crops requires the highest possible intensity of labor field by field.”¹⁴

Today, farmers use fertilizers, genetically manipulated seeds, and chemicals in an attempt to get the highest possible number of bushels per acre. Weber's observations from more than a hundred years ago are eerily prophetic today.

The easiest way to explain traditional authority is by contrasting it with economic authority. Max Horkheimer and Theodor Adorno explain how economic authority asserts itself under the guise of rationality that in turn becomes a myth that can be irrational. In their book, Dialectic of Enlightenment they argue that Odysseus replaced the traditional Gods and became his own myth of rationality.¹⁵ They write, “From the standpoint of the developed exchange society and its individuals, the adventures of Odysseus are no more than a depiction of the risks which line the path to success.¹⁶ Although the mythical places and creatures that Odysseus encounters make a compelling narrative, the manner in which Odysseus comes to embody rationalism is an important underlying storyline. Horkheimer and Adorno write, “The formula for Odysseus's cunning is that the detached, instrumental mind, by submissively embracing nature, renders to nature what is hers and thereby cheats her.”¹⁷ Exploiting nature is a mandate for economic authority. The history of colonization as well as the history of technological innovation and heavy industrialization in America prove that economic authority conceptualizes land as instrumental, to be used and manipulated for the economic benefit of the owner of the land

Aldo Leopold, a staunch conservationist, asserts that the land has inherent value

¹⁴p.22 Weber, Max. Protestant Ethic

¹⁵“Odysseus or Myth and Enlightenment” from Dialectic of Enlightenment.

¹⁶p.48

¹⁷p.45

regardless of any economic perspective. In the famous chapter called “The Land Ethic” from his 1949 book A Sand County Almanac, he argues that “There is as yet no ethic dealing with man's relation to land and to the animals and plants which grow upon it. Land, like Odysseus' slave-girls, is still property. That land-relation is still strictly economic, entailing privileges but not obligations.”¹⁸ Leopold was attune to the fact that the environment is an externality to the economic system, which means that unless they are incorporated they will continue to be exploited. More than half a century later, the environment is still an externality, and farmers today can apply as many chemicals as they want with a few exceptions.

The disregard for creatures, plants, or objects by economic authority is what prompted Aldo Leopold, who was born in Iowa, to write:

One basic weakness in a conservation system based wholly on economic motives is that most members of the land community have no economic value. Wildflowers and songbirds are examples. Of the 22,000 higher plants and animals native to Wisconsin, it is doubtful whether more than 5 per cent can be sold, fed, eaten, or otherwise put to economic use. Yet these creatures are members of the biotic community, and if (as I believe) its sustainability depends on its integrity, they are entitled to continuance.¹⁹ Leopold has illuminated one of the core beliefs of traditional authority, that we are all members of a “biotic community” and that members of that community “are entitled to continuance.” The interconnectedness of our ecosystems and social life creates a reverence for all life. While economic authority pictures man as the conqueror of mother nature, traditional authority sees man as and working with mother nature.

Wendell Berry has been arguing against economic authority throughout his career. In his 1977 book, The Unsettling of America, Berry writes:

Generation after after generation, those who intended to remain and prosper

¹⁸p.203 Leopold Aldo. A Sand County Almanac: And Sketches Here and There. Oxford University Press 1949. Reprinted 1987

¹⁹p.220 Leopold, Aldo. A Sand County Almanac: And Sketches Here and There. Oxford University Press 1949. Reprinted 1987.

where they were have been dispossessed and driven out, or subverted and exploited where they were, by those who were carrying out some version of the search for El Dorado. Time after time, in place after place, these conquerors have fragmented and demolished traditional communities, the beginnings of domestic cultures. They have always said that what they destroyed was out-dated, provincial, and contemptible. And with alarming frequency they have been believed and trusted by their victims, especially when their victims were other white people.²⁰

Berry's reference to "some version of the search for El Dorado" is synonymous with economic authority. Berry shows how traditional authority is dominated by economic authority, and he paints a picture of a crisis, similar to the crisis of the family farmer.

Vandana Shiva, an outspoken proponent of the rights of indigenous people, writes in her book Biopiracy that "biodiversity is converted from a local commons into an enclosed private property." She continues, "Central to the privatization of knowledge and biodiversity is the devaluation of local knowledge, the displacement of local rights, and simultaneously, the creation of monopoly rights to biodiversity utilization through the claim of novelty."²¹ Here again, we have another example of traditional authority being dominated by economic authority. Shiva condemns the exploitation of indigenous people because of how their knowledge is commodified and exploited by corporations.

Exposing the way that traditional authority is exploited is far easier than defining traditional authority. Wes Jackson, an environmental scholar, writes in his book Becoming Native to This Place, "We are unlikely to achieve anything close to sustainability in any area unless we work for the broader goal of becoming native in the modern world, and that means becoming native to our places in a coherent community that is in turn embedded in the ecological realities of its surrounding landscape."²² He continues, "We have sent our topsoil, our fossil water, our gas, our coal, and our children

²⁰p. Berry, Wendell. The Unsettling of America.

²¹p.67 &68 Shiva, Vandana. Biopiracy.

²²p. 3 Jackson, Wes. Becoming Native to This Place

into that black hole called the economy.”²³ To Jackson, traditional authority means growing roots and cultivating a connection to the land instead of being submissive to economic authority.

I have meditated long and hard on these thinkers and the best way to define traditional authority. Economic authority is not modern and traditional authority is not antiquated, because both have been coexisting since the development of systematic quantitative monetary systems. Traditional authority harmoniously respects the rights of all members of our biotic community. Traditional authority is qualitative in that it values emotions and feelings. Traditional authority believes in family dinners around a dining room table not microwave dinners around a television. Critics will mention that traditional authority is a rejection of economic authority and that if we all revert to hunter gatherers, billions of people will starve to death, but traditional authority is only an ideal type. A farmer that answers to traditional authority will minimize their inputs and try to work with mother nature instead of working against her. They will not kill everything except for their crop. They understand the value of having dynamic soil. Traditional farmers will rotate their crops and test to discover what works best for their soil. They will have animals, which will provide them with fertilizer as well as a more diverse portfolio. Traditional authority means that one strikes an equilibrium with their surrounding environment. The Indian did not massacre the buffalo because they knew that they would need buffalo to eat the next year and that their grandchildren would need buffalo as well. Traditional authority thinks of grandchildren while economic authority thinks of profit.

In their separate systems of valuation, traditional authority believes in an inherent

²³p.12

value while economic authority believes in an external value that is derived from our monetary system.

The Biological Farmer:

Bryan Davis is a local farmer in Grinnell. He farms 900 acres, 300 of which he is working to get certified organic. Bryan used to be a conventional farmer has since switched over to being what he calls “biological farming.” He explained to me what precipitated his transition away from conventional farming methods:

We farmed conventionally for the first 20 years that we farmed, hardcore conventional. We actually had 11 years of that where we were following Iowa State's recommendations. We were hardcore no-tillers the way I put it. We were going out into bean stubble, not working the soil, planting or no-tilling our corn crop into the bean stubble. The same way with the corn ground. We were no-tilling beans into it. We were using a lot of commercial fertilizers, lots and lots of chemicals. What got us looking in a different direction is when her dad died of non-Hodgkins lymphoma in 1986, because there was a doctor from Sweden that was in Iowa City at the University of Iowa hospital that contributed her dad's illness to farm chemicals. The doctor had done a 7 year study in Europe and when her dad got sick he was in his third year of study here in the United States. The largest population in the world that had non-Hodgkins lymphoma were farmers that applied chemicals. And his study still stands today. We were wanting to get away from that [*coughs*]. It took us a few years to find another way, because I was trained the other way. My experiences were with chemicals and with conventional farming. And then I finally met a fella from Wisconsin that I started learning from. The way that I look at biological farming is you are depending more upon [your natural resources]. You are going back and working with mother nature instead of working against her. Everybody's idea of farm chemicals is to destroy. You've got to destroy all of the bugs. You've got to destroy all of the weeds. Now, you don't want to destroy everything. You want to control them. Let them work in your favor, but control them, because everything is put on this earth for a purpose whether it's a bug or whether it's a plant.

Bryan changed his farming methods because his father-in-law's death was caused by farming with chemicals. Even if economic authority legitimizes the use of chemicals, they are putting human health at risk. Risk along with the environment is another

externality that is not valued by economic authority.²⁴ The transition away from conventional farming methods was difficult, because there is far less institutional support for farmers that deviate from dominant farming techniques. Bryan also sees his new method of biological farming as bringing him closer to the land on which he toils. He no longer pictures himself as the conqueror of his land. Instead he envisions himself in communication with the land.²⁵

In addition to his newfound attentiveness to the land, Bryan has decreased the costs of his inputs by avoiding chemicals as well as genetically modified seeds and increased the quality of his outputs by providing healthier food. Bryan explained:

When we go to the grocery store and we buy apples or bananas, no matter what it is, unless it is certified organic, it has had chemicals sprayed on it. And something that was brought to our attention here this winter, they were talking about the hog manure that is being spread out on the ground. The hogs were being fed chlorotetroccline penicillin which is an antibiotic. Now, they are finding that same anti-biotic in the bean plant. The plants are actually sucking up the antibiotics, the chlorotetroccline, out of the soils, and they can test the corn plants and the bean plants and actually find these antibiotics in the plants. If they can suck up antibiotics out of the soil, why can't it be sucking up these chemicals? We are turning around and eating [those plants], so we are eating those chemicals. To me, I think it has a direct relationship to the health of the people of this country. So that has effected the way I farm a lot. Then financially, we've went back to doing a lot of what we are doing because we were making a lot of people rich but it wasn't us. I mean we were spending a lot of money to farm or co-op. We were spending a lot of money on chemicals. We had to do something different to survive.

Bryan makes a conscious choice to buy fewer inputs, unlike Mark Dimit, who gives large sums of his money to chemical and machinery corporations in an attempt to maximize his productivity. Bryan's switch over to organic has increased his labor because he is forced to till and cultivate, but he is also able to avoid farming with chemicals. Bryan gains both an economic and moral benefit from this avoidance.

Even though Bryan has benefited both economically and spiritually, his farming

²⁴Beck, Ulrich.

²⁵Jackson, Wes. Becoming Native to This Place. quoting Wendell Berry.

techniques are marginalized by public institutions such as colleges and environmental agencies. In this passage, Bryan challenges the techniques that are promoted by the dominant way of farming:

I have less erosion now doing what I'm doing than I used to have when I was one of those hardcore no-tillers, because my soils are permeable. They will let water in instead of making water run off. Everybody looks at residue as being the factor that eliminates erosion. I've got pictures to prove [that is not true]. I have a neighbor up north that was hardcore no-till right across the road. And I had a cover crop of oats started in March. This was 3 years ago. One night, we had a seven inch rain. You couldn't even see any gullies where I had washed. The neighbor lost his waterways and the water came down and actually washed his fence out. I use those pictures in some of the presentations that I give. Now, if residue controls erosion, why did my water go in the ground and his didn't? That's where I fight [dominant farming techniques]. It's an inner struggle for me, because everybody thinks that they're doing right. But the whole concept of change, change comes hard. I mean it really does. It's hard for people [to understand me], because they keep wanting to look at a lot of the things that I am doing as being old fashioned instead of progressive. Well, I grew 186 bushel corn last year on 16 pounds of nitrogen. ISU says it takes 1.2 pounds of nitrogen per bushel. So if you take 186 bushel of corn times 1.2 I should have needed about 200 pounds of nitrogen or a little more. I grew that 186 bushel on 16 pounds of nitrogen. Now is that old fashioned to you? To me, I don't know of anybody else... Of all of the people that I know, I don't know of anybody that has been able to do that.

Bryan rejects the strategies endorsed by the dominant way of farming that maintain residue levels are the key to preventing erosion. He believes that because his land is more dynamic, it is better able to respond to the elements. Bryan then provides the preposterous example of Iowa State University's recommended rate of nitrogen fertilizer per bushel of corn. Iowa State University recommends that Bryan use fourteen times the amount of nitrogen fertilizer that he currently uses. Even if Iowa State University's recommendation is accurate for an industrial farmer, it proves that they expect for farmers to be working in depleted soil that needs copious amounts of synthetic inputs in order to be productive.

Traditional authority becomes critical of science that is propagated by economic authority for the benefit of corporations. Bryan said:

I hate to sit here and totally talk against science, but I think science has been able to create some good things, and yet I'm not too sure science hasn't been able to create some monsters that we don't have any idea what they are going to be. Thirty-five years ago when they first came out with a chemical called atrozine, everybody thought it was the greatest thing since sliced bread. They had no idea that it was going to contaminate every shallow well we have got in the state of Iowa and probably in the Midwest. Now, you can't go around a shallow well and pull water out that doesn't have atrozine.

Another example of a farm chemical that seriously damaged the health of our ecosystem is DDT, which is still produced in America but is exported and not sold domestically.

Ulrich Beck, a renowned German sociologist, echoes Bryan's scrutiny of science. He writes, "An ethical renewal of the science, even if it were not to become entangled in the thicket of ethical viewpoints, would be like a bicycle brake on an intercontinental jet, considering the autonomization of technological development and its interconnections with economic interest."²⁶ Farmers must choose which technologies to abstain from using, because they are constantly marketed the latest products. Bryan has chosen to remove himself entirely from the market of chemicals and genetically modified products, which removes him entirely from the system of dependence, marketing, and consumption that exists between farm corporations and farmers.

Not only is Bryan saving money and raising safer crops, he is also raising higher quality crops. Bryan explained:

I am trying to raise a higher quality produce, something that has got more minerals in it that has more food value. The funny part about it is now I am also finding out that I not only have a highly mineralized crop, something that has got a higher food value, but it also stores longer. It is just better quality... I think that we need to be looking at all crops that way, whether it be broccoli or carrots or cabbage or soybeans or corn. No matter what it is I think we need to [value our food qualitatively.] I think as a society, I think as a producer we need to look at it that way. But unfortunately, the marketplace doesn't care whether you have got a higher mineralized product. They are only going to pay you for a 56 pound corn or a 60 pound bean. They really don't care what it has got in it. If you feed your own grain it doesn't take very long until you can see the difference. I mean financially it takes less corn because it has got higher it has got more value to it.

²⁶p.333 Beck, Ulrich. "From Industrial to Risk Society" from Debating the Earth. Oxford University Press: 1998.

Just like my hay. I mean the better quality hay I got the less of it the horses have got to eat.

Bryan succinctly illuminates many of the failures of economic authority, specifically that it does not value quality. Economic authority only values quantities. Qualities are only valued when they can be commodified, which is why Bryan is getting 300 acres of his farm certified organic, so that he can benefit from a specialty market. When I asked the inbred line producer if they developed lines for nutrition, he explained to me that breeding for nutrition is rarely profitable, because the farmer sacrifices more in yield than they will make off of the premium.

A nutritious plant has to come from healthy soil, and the dominant farming techniques are focused on producing yield, not dynamic soil. The danger of ignoring traditional authority, the quality of our food, is that our food becomes unhealthy. If I eat chicken that is fed corn without nutrition, I am eating chicken, but it has a reduced food value. Economic authority claims that corn is corn and chicken is chicken.²⁷ When buying meat or produce in a supermarket, the only information that the consumer is given is often the price per pound.²⁸ When the producer is paid on quantity, then they only produce for quantity. The consumer often buys based on the same quantitative criteria. The alienation of both the consumer and producer is asserting itself in our country as unhealthiness.

The American farmer is often represented as the most efficient in the world, but Bryan disagrees. He said:

Everybody wants to look at the United States as being the best of everything. To me, it's the same kind of propaganda that the the Soviet Union did to their people back in the 70's. We entertained some groups of Russians back in the 70's and the 80's. And then just 2 years ago I had a group of 40 South Africans that came here and spent two days with us. I was explaining to them, but Australia is just light years ahead of us in this whole biological concept, being able to balance the soils

²⁷Omnivore's Dilmna and The Fatal Harvest

²⁸Omnivore's Dilemma?

and go back to the natural side of it. If the high costs of farm inputs and low quality of our food is ignored, America has the most productive farmers in the world. Our industrial food production system is also highly subsidized by the government, a luxury that many countries can not afford.

For Bryan, the recent consolidation of farms is also explained by a larger shift in society towards personal economic interest at the expense communal values. He explained:

There are a lot of guys out there who are doing a lot of yields but no quality... Back in the 70's, the thought process was that there were people starving to death all over this world so we had to grow all of these bushels so we could feed people. Well, there's still people starving to death in this world and there's always going to be people starving to death in this world, unfortunately. But I think the biggest reason that you see people starving in countries, it's because of their government. If the governing body of their country cared as much about their people then they'd find a way to keep them from starving. It isn't because there's not enough food in the world to feed them. It's because the governing body of that country is not taking care of it's people. And that's what worries me is that the United States could come back to that. We've got two three generations of people here that have never known what being hungry was. Back in the depression when [my wife's] grandfather bought this farm, if your neighbors didn't have something to eat you shared what you had. Today, it worries me that if it gets to the point where people are hungry again, there won't be any sharing. Somebody will shoot you or stick you in the back with a knife to steal what you have. Which there again, I think it is a reflection of where our society has degraded to, which is sad. That really bugs me. And I got a grandson that just turns a year old the 6th of August. It bugs me to think, "What is it going to be like when he is 25 years old?" And he's just a year old.

Bryan questions the security of our food supply. More importantly, he shows how in America the farmer is taken for granted. Even though individuals in our country have no need to ever meet a farmer, everyone survives off of the food that they produce. Several farmers expressed to me a feeling of neglect, that they are under appreciated. Even though Bryan rejects the global mandate to feed the world, he is still feeding people in America. Although traditional authority is an ideal type, Bryan embodies many characteristics of traditional authority, working with mother nature and worrying about his grandchildren.

The Direct Marketer

I met with Barney Barenfuse and Suzanne Castello at a local pizzeria in Grinnell called Paglia's. Barney and Suzanne are engaged, and with their wedding coming up in a matter of weeks and farming, I was lucky to be able to meet with them. Barney described his operation as “a diversified crop/livestock operation. The only animals I typically buy are bulls and boars, rams, billy goats, and my chickens. I buy all of my chickens as day-old chicks. Everything else that I sell I have raised them up from conception on the farm.” Barney plants about 65 acres of corn a year, all of which goes to feed his livestock. He is also the only farmer that I have talked to that does not participate in any government farm programs.

Barney direct markets all of his meat, which means he sells directly to the consumer. He has between two hundred and two hundred an fifty customers, most of whom are in the Grinnell area. Barney said that his customers “can buy either beef, pork, lamb, or chicken. Some of them buy all of them. Some of them only buy one thing. It's been strictly a word of mouth business. Never advertised it.” Barney later clarified that he has never paid to advertise. He advertises for free through Cafe Phoenix and Saint's Rest Coffee Shop, two Grinnell businesses that cater to the college community. Direct marketing overcomes the alienation of the industrial food system. Consumers know where their food is coming from and have an actual connection to producers. Unlike Marc Dimit, who sells his corn to the highest bidder, Barney knows that his final product will be meat that people will eat.

Barney's customers purchase his meat, because they feel that it will be more nutritious, safer, and tastier. Barney explained that he was interested in trying open-

pollinated corn, because the people that are developing open pollinated corn “are more concerned with the quality of the corn than the quantity. I mean, they want a decent yield, but they are not worried about record breaking yields as much as the actual quality of the seed and the feed quality.” Barney empathizes with traditional authority, which is why he values quality over quantity.

Suzanne added, “That's all tied to the fact that you feed to your own livestock, because if you are trying to sell them in the open market, what the hell do you care?”

“It doesn't do any good to-” Barney started to say.

“To have quality,” Suzanne finished his sentence. “You just have to have yield.”

“Most of the time you don't get paid for that,” Barney agreed.

“Can you see better quality?” I asked.

“Oh yeah,” said Suzanne. “In your animals. They are what they eat.”

“There are definitely cases where farmers get paid for that kind of quality,” Barney explained. “But the biggest share of them, they are just selling number two yellow corn. It doesn't make any difference what it is.” Barney elucidates that quality is not valued by economic authority unless it can be commodified. The danger of the dominant way of farming is that we may be producing cheap food, but not only does our food have a low price, it also has low nutrition.

The formation of farms in Iowa have changed through increased specialization.

Barney commented on how rapidly this change has occurred:

I think of traditional farming as the idea of having livestock. I think that has changed the farming here in Iowa more than anything. The idea that so many farmers have gotten out of the livestock business... When I was a kid in the 60's, you went down the road, every single farm had livestock, every single farm. Where you would go down the road now, probably three out of five of them you wouldn't even see the building sites anymore, because they are part of another farm. For every two or three farms, maybe only one of them might have livestock. It's been a huge change, and I don't think it has been real beneficial. Southwest

Wisconsin, they have had more of a livestock economy. It looks to me that their small towns seem to be much more prosperous than our small towns. Farming, as a way of life and community formation, has become debased by specialization and the resulting consolidation. Confinement facilities that have made growing hogs and chicken economically unviable unless the farmer can commoditize the health of their product or direct market to the consumer.

Suzanne and Barney believe that technological advances in farming have contributed to the disassembly of the family farm and farming communities. Suzanne said, “[Increased size] also effects the whole family. When you were baling with small bales, you needed three people to do the baling. Now, you can do it with one person. You have lots of things like that. On a grain farm, who needs a wife? Who needs a child? Who needs anybody? Just bachelor farmers. You can just do it all up yourself.”

“It's kind of the opposite of the Amish philosophy,” Barney commented. “Where they have to have a lot of people to do everything. That helps to keep the community together. If you have to have all three of your kids and two of your neighbors to do the project, that helps to keep the community together. You keep in contact with your neighbors better than when you have got a twelve row combine and a thousand bushel grain cart and a couple of semis of your own. You don't need anybody,” he laughed. “You don't need to see them until you go to the coffee shop.”

In contrast to Al Henderson, who derided that Amish for being inefficient, Barney praises the Amish. The Amish are a medium through which both Al and Barney express their feelings for traditional farming. Al does not value their techniques and Barney does, which accurately reflects their placement on the continuum between economic and traditional authority. Barney expresses more solidarity with traditional authority and Al expresses more solidarity with traditional authority.

Farmers now have to capability to produce more crops by themselves, but this increasing automatization is creating farmers that may find themselves without meaningful connections to the people that live around them. The farmer can now exploit nature without being abetted by anyone. Family farms used to be necessary, because a farmer needed the support of their family to farm. Everyone living on the farm was a farmer, hence the term family farm. Technological innovations have made the family farm unnecessary, but that does not mean that family farmers do not still have an important role to play in America. With the increased industrialization, family farmers are the subset of farmers that continue to value quality, safety, nutrition, and community over quantity.

Veterans of the Trade

The first farmer that I talked to is named Howard McDonnough. Howard is a stout man that played rugby for years with the Grinnell club team. Although recently retired, he is still actively involved with the farming of his land, five hundred and fifty acres that he bought when he was 18, in 1960.

Howard went through a rough stretch during the farm crisis of the 80's and had to turn to off-farm work as a stadium builder. Howard's philosophy was to never panic, because, "If you have a problem, somebody else has already had that problem and found a solution for it. So you try to find the person [with the solution] and then tell as many people as you can. You can generally find a solution very quickly no matter what type of problem it is." Howard seeks advice from his peers, a technique that allows him to navigate the pitfalls of farming. He has also worked to cultivate his own local knowledge that is based on what has worked successfully for his farm. He said, "I don't follow a lot

of the things that are recommended. I just have tried them myself for so many years. If I'm trying a new crop, I try it on a very small amount of acres at first. I do 10 to 40 acres of something new and then if it works why I go with it." Howard has learned what works best for his soil and in that way is able to resist dominant farming techniques.

Howard is now semi-retired and donates part of his land to the Plant-a-Row Foundation, which provides fresh produce to those in need. Howard seems to strongly identify with his farming as a way to make food. He said, "85% of [the food] we eat we raised. When our kids were home, it was probably up around 95%. We still have our gardens, can freeze, and can butcher." Farmers that eat their own product are necessarily more connected to what they grow. Simultaneously, Howard sold most of his soybeans and corn on the commercial market. He is an amalgamation of both traditional and economic authority, but since both are ideal types, no farmer will fit entirely within one category.

After a life spent working the land, Howard's disposition toward farming is revealing about the current state of farming. His closing words were: "I don't think [farming is] as much fun as it used to be. It used to be the harder you worked the more profit you had. That isn't necessarily true anymore. But I don't know that it's true in any other industry either. I've enjoyed doing what I'm doing." Like Mark Dimit, Howard understands the attempt to make the farmer a good businessman instead of a good farmer. Like Lance Veldbloom, Howard understands that most professions, for example secretaries, have also undergone drastic change. Howard expresses his distaste for the industrialization of farming by saying that farming is not "as much fun." According to Howard, there used to be more of a direct relationship between how hard you worked and how much profit you earned. With industrial farming, profit and work no longer have a

direct relationship. Skillful navigation of the market will make a farmer richer than if he farms well.

Howard Raffety was the second farmer with which I talked, and he has an indelible sense of the market. We met at his house, which is located on the same ground that his father first started to farm in 1929. Howard's farm is under a corporate umbrella, Raffety Farms Inc., and Howard holds the position “secretary of treasurer,” and is the only full-time employee.

Both Howard Raffety and Howard McDonough raise cattle, and it seems to me that they identify more closely with their cattle than with their corn. When I asked them, “What crops and livestock do you raise on your farm?,” Howard Rafetty responded, “The cowherd is mine, not the corporations. Today, I have twenty-four cows, a bull, two heifers that have not calved, not been bred, and nineteen calves on the ground, five more to go.”

“What crops?”

“And in the past I've raised hogs,” Howard continued to talk about livestock. “I grew up with chickens and that's about it... Milk cows, I milked grade A for the first three years, because dad still milked. Grade A means fluid milk for the table versus grade B milk, which is in ice cream and manufactured processed products.” Howard was very eager to talk with me about livestock, and even gave me a detailed description of his cow herd. Howard's enthusiasm goes back to Barney Bahrenfuse, who said that he thinks of traditional farming as having livestock.

Howard elucidates the point that farmers are disciplined by economic authority similar to all individuals in our society. He said:

Farming's a way of life. It's also a business, and you need to have some financial acumen to be successful, because there is the marketing of the crop. There is the

purchasing the inputs. Within the purchase of the inputs there is the purchase of the machinery. You don't always have to have brand new paint all of the time. You need to make good financial decisions in terms of what each operation needs. In my operation, my paint has grown old. I don't apologize for any of the equipment, because it is well maintained and kept up. Certainly does the job for me every year. At 65, we're beginning to get into a race of whether I'm going to quit before the machinery quits. I have made some new purchases of smaller stuff, but I don't have brand new tractors.

Howard has aged along with his tractors, and he is now at the point in his career where purchasing a sleek new machine, such as the one that Mark Dimit uses, is not realistic.

Howard mused with me about the future of farming and GPS technology. He said, "I mean it's fun for me to look at, but I'm not going to get it. If I was younger it would be [a possibility], and especially if I had enough acreage to support it." In many ways, Howard Raffety is content. He is content with the farming techniques that he uses, the productivity of his land, and how he markets his product, and yet he still expresses more solidarity with economic authority than traditional authority.

Howard describes corn in an instrumental way. He said, "I have referred to the corn plant as a factory, but if the corn root worm is there and eating all of the roots off of the factory, the corn can't take in the inputs to make that new ear of corn as efficiently. [Rootworm resistant corn] should pay for itself in a better factory, because otherwise the factory is hampered without enough inputs enough supply." The highest form of expression that we have are our actions and the overwhelming majority of farmers are use practices similar to Mark Dimit and Howard Raffetty. Despite the inclination towards using these techniques, farmers are still on a continuum between economic and traditional authority that involves many factors. However, all of these farmers are subject to the specific context of Iowa, which has pressures exerted upon them from the government, corporations, familial ties, and local communities that may not be present in other contexts.

Similar to the Monsanto workers, Howard sees sustainability in global terms. He said, “Was it three or four billion people back in the world in the 1940's or 30's? What do we got—seven or are we up to eight billion people in the world now, let alone in the United States? I don't know whether you can feed them the way we used to. I'm not even sure whether it's efficient to produce it the way we used to. You get me started in organic farming here, too [*laughs*]. I'm not sure we can do things and feed everybody if we did it the old way, in one sentence. And yet if you want to pay me enough I can produce it the old way, because I was an organic farmer when I started in 1962.” Note the way that Howard refers to organic as old, dated, and inefficient. Those negative connotation are a result of Howard's investment in economic authority. He can not think of benefits that are outside of the scope of yield. Under the current paradigm of big agribusiness, we produce more food, but have to eat more, and are less healthy.²⁹ In addition, most of the people in the world are fed on non-GMO crops, and in China most farming is done without chemicals.

Making a Profit

I met with Mark Kennett at Saint's Rest, the same coffee shop that advertises Barney Bahrenhuse's meat. Mark has an interesting perspective, because although he has lived in Iowa for seventeen years, he grew up in New Zealand. Mark explained to me one of the biggest turning points in industrializing agriculture in the United States. He said,

We can blame the demise of the family farm on when the cab came along. Any individual person could work longer and more comfortably, so they did work longer. And then when they worked longer, they were able to do more acres, so then we didn't need as many people. What do you want to blame? But we have had since 1980, so 25 years, well it's longer than that, but in recent memory, a decline in desire amongst those eligible to want to farm. So as you lose this labor

²⁹SARE Conference 2006, guy from Full Belly Farms California.

pool, those who are left have to do more acres per hour of time. Fewer young people want to go to college and come back and farm and take this risk. There's a cause and effect of course. Which came first? Was it that the people didn't want to come back because other people were left to seek bigger equipment? Or was it the manufacturers made bigger equipment because someone was asking for it and then they charged more for it too? We've gone from what was the norm in 1980 is not economically viable in 2005.

Mark illustrates the coercive power of technology. We are at a point where industrial farmers are limited by how much land they have, not how much land they can farm. A farmer that attempted to use the same techniques as farmers such as Mark Dimit on less acreage would find that they are not competitive.

Another important aspect of farming in Iowa is the subsidies. The more land a farmer cultivates, the more subsidies he receive from the government. The subsidies that each farm received are available on-line at "<http://www.ewg.org/farm/>." I would have felt too rude asking them in person the amount they received, but I took the liberty of searching to see how much some of the farmers that I interviewed had earned. The figure that I will be using will be their average annual subsidy amount over ten years, from 1995 to 2004. I looked up these farmers either by their names or by the names of their corporations, which means that there might be other shareholders that receive a portion of the subsidies.

Avg. Yearly Subsidy	Conservation	Disaster	Commodity	Total
Mark Dimit	\$4,021.00	\$0.00	\$75,655.00	\$79,676.00
Bryan Davis	\$360.00	\$0.00	\$38,866.00	\$39,266.00
Howard Raffety	\$0.00	\$0.00	\$31,132.00	\$31,132.00
Mark Kennett	\$0.00	\$0.00	\$9,276.00	\$9,276.00
Howard McDonnough	\$343.00	\$0.00	\$1,756.00	\$5,186.00

I know that most of the farmers will be uncomfortable with me showing these figures,

because they are being reduced to a number. There are several other numbers that would be interesting to show you, but would make the farmers feel uncomfortable, namely their net worth and their net income. I do not know either the net worth or the net income for the farmers that I interviewed, but I am interested in what our society considers sacred. In all societies, there are things that are intimately sacred and therefore secret. In our society, an individual's net worth is often sacred. Most individuals will not readily reveal their net worth, and may feel transgressed upon if these numbers are revealed through a public medium such as the internet. The secretive nature of one's personal finances are a sign of how highly our society values economic authority.

Notice, however, that many of these farmers make a significant amount of their income through subsidies. Mark's corporation makes almost \$80,000 a year, enough that if he breaks even on his farming and does not have to give a portion of the subsidies to other shareholders, he can make a decent living. Both Bryan Davis and Howard Rafetty also receive a sizable portion of money yearly from the government. All farmers that grow corn and soybeans and are involved with government programs benefit financially.

The biggest winners from federal subsidies, however, are the corporations. Without government subsidies, crop production is monitored by economic authority, which is controlled by the market. Mark Kennet explains, "The US is still heavily subsidized, so we look to the government to solve all of our problems versus in New Zealand those subsidies don't exist, so you have to look at the marketplace. You need to produce what the market is demanding. And so that that mindset difference is enormous." In the end, government subsidies benefit corporations more than the farmer. The corporations benefit because they can invest in technology that pushes production past what would be economically profitable. John Deere can design humongous combines and

Monsanto can invest in the genetic modification of corn seeds, because they are assured that there will always be demand for more corn. Other corporations profit because they are able to buy corn at a deflated cost. One farmer who asked to remain anonymous explained:

I don't consider them subsidies for farmers. I consider them subsidies for the large grain companies, and the large livestock producers, because it allows them to buy their corn at the lowest possible price. They do not have to pay fair market value for it. Because farmers get paid a subsidy regardless of how much they grow and they get the subsidy based on the amount, they produce all they can, which depresses the market. And then because the grain companies can buy it at that low price and then the tax payers make up the difference to the farmer so that the farmer still makes a living and keeps producing.

An obvious critique of the current farming structure is that even the market is not pure.

Economic authority is distorted so that it values certain crops more than others. The current push towards using corn for ethanol ignores the fact that a different crop, such as switchgrass, may be more efficient and have a better effect on the environment.

Corporations have taken corn and found more and more uses for it to justify continued increase in production.

The Future

There is immense difficulty in commoditizing a product, so that the value in an object can be properly reflected. The label "organic" is an example of a marketing technique that attempts to extract a premium from people who are partial to traditional authority. The problem is that organic is only a certification. There are farmers that create a higher quality product without being certified organic than farmers who are certified organic. Bryan Davis, who is working to get certified organic said, "I know some organic people that call themselves organic that are organic by neglect. They don't do the things that I am doing." The consumer wants to have faith that what they buy is what they were

intending to purchase, and for most purchasers of organic, they want a product that is more safe, healthy, and environmentally responsible.

I believe that organic products purchased from Wal-Mart will have some of these characteristics, but not all. The food will not be contaminated by synthetic chemicals or fertilizers. However, the taste, nutrition, and ecological sustainability may not be near the value that one can get from their local farmers. Supermarkets are forced to store their products for days, sometimes weeks, which means that the products are not ripened on the stalk, causing their produce to lose nutritional value as well as taste value. In addition, food that is purchased through the industrial food system has often traveled thousands of miles, from the farm, to a distributor, and then finally out to the supermarket where the consumer can purchase the food.³⁰ Even if the food was grown for quality and by a producer that follows traditional authority, the consumer becomes alienated from the product through the industrial food system, and through that process, the earth is also polluted by an unnecessary waste of fossil fuels. We cannot sit around and wait for Wal-Mart to sell us the answer of the problem that they have helped to create. We must reach out and reconnect to the land ourselves, through people, through farmers.

If there is any one strategy that I will suggest, it is this: reconnect to your producers. There is a large social movement among farmers to produce food that they will direct market, and there is no better way to show your allegiance to traditional authority over economic authority, to quality over quantity. Community Supported Agriculture (CSA), has shares that people buy to receive fresh produce weekly, farmers markets are flourishing all around the country, and if you are looking for a place to purchase locally, you will stumble upon the social connections where you least expect

³⁰Pollan, Michael.

them.

In addition, do not think of traditions as weak, as out-dated, or as devoid of power. Traditions are spiritual, and they are what binds us together. They are what separates life from a video arcade. Do not be afraid to assert quality in health or taste as factors that are real and tangible. Do not be afraid to assert costs such as safety and environmental devastation as concerns that motivate you. Some people say that we live in a society of fear.³¹ Let us not be afraid to say what we care about. If we are afraid to do that, then we truly are a society of fear, a society that is sad, scared, unhealthy, unhappy, and submissively watching the destruction of our life, our family, and our planet. If we stand for traditional authority, let us at least attempt to change the world through what we can do, through our personal agency. I would rather believe in our country than condemn a system in which I am invested. I make it legitimate more traditional authority for future generations than leave it broken, entirely dominated by economic authority.

Therein lies the great disconnect. We have created cheap food. And like anything cheap, we are facing the consequences: health wise, environmentally, and even socially.

³¹Moor, Michael. "Fareinheight 911"