What is Negotiated?

The Effects of Neoliberal Capitalism on Farmers

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Anthropology of Capitalism

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12/8/2017

Introduction

For farmers, land is one of not only a factor of economic importance, but one of cultural significance. However, with the global growth of a neoliberal capitalist market, these well-founded ideas have been forever changed by the introduction of new economic systems and corporations. While the lasting impact of these openings is still being worked out, many communities and cultures find themselves at the negotiation table. This bartering process is not an easy one, as we will see. Perhaps one of the most significant harbingers of this change is the Monsanto corporation. The spreading open market throughout the globe coupled with the global acceptance and adaptation of free markets, the company has become the primary agri-business supplier and trendsetter. To understand this social global phenomena can be a tricky subject area. While every corner of the world may experience this trend differently, due to the homogenization tendencies of the worldwide market, common threads appear between many cases. Beginning our research within the United States, we will see the development of the global market as it works its way into the oldest occupation in America. The United States offers itself as an interesting case study of a developed country and the lasting impact, assimilation, or removal of cultures that find themselves at odds with the market. The second case area is that of Tehuacán Valley, Mexico, a country in which agrarian populations' ideas, lives, and rights are threatened with the introduction of neoliberal policies. Lastly, a critical examination of farmer suicides in rural northern India. The case of India highlights the real cost of an ever-increasing involvement of transnational corporations as well as the local reaction. The lasting impact of the global market upon local agrarian cultures is a complex field in which the after effects are still not wholly understood warranting further research.

Global Neoliberal Agribusiness

A "food regime", conceptualized by Friedmann and McMichael (1989) and described by Otero and Pechlaner (2008), is, "a temporally specific dynamic in the global political economy of food". Otero and Pechlaner predicted that the world was witnessing the rise of a new one: the neoliberal food regime. Multinational corporations like Monsanto Company and their federal supporters use and promote trade liberalization, "neoregulation", and intellectual property rights policies to propagate biotechnology and capture global food capital. This industrial-political complex has covered immense ground within a short period. Transgenic crops covered 4.7 million acres in 1996; by 2011, transgenic crops covered 497.5 million acres (James, 2014, converted from hectares**)**. Through forcing open doors to these genetically engineered (GE) exported crops, requiring farmers to buy new seeds every year, failing to properly regulate the commercialization of GE crops, and many other policy and economic actions, "developed" governments like the U.S. government and agricultural biotechnology corporations together have disrupted old agrarian social structures, and threatened and transformed livelihoods of farmers and indigenous peoples of India, Mexico, and even farmers in the United States.

Farming in the United States

The United States is one of the largest agricultural exporters in the world. As of 2007 there were 2.2 million farms in the country and farmland covered over 900 million acres of land. With an average of 418 acres of land per farm. In the 1950's the number of people working farms halved from around 20 million people living on farms to about 10 million. At the same time in the following decades the average size of farms doubled from 200 acres per farm to 400 acres per farm. This charge comes from increased mechanization of agriculture as well as many

scientific advances which allowed farmers to feasibly work more land. (USDA, 2012) But these developments came with a stronger corporate presence in agriculture.

Numbers are rarely moving though, but this point can be expanded anecdotally. One of the authors' grandfather was born and raised in Iowa and the expansion of large agriculture is arguably the reason I (Tristan) live in Connecticut now. My grandfather's grandfather originally settled in Iowa with his brother at the end of the 20th century. They were poor Welsh immigrants who like many at the time went west to make their living. They built a farm near Mount Pleasant, Iowa and started their families in a predominantly Welsh community.

This community held on to their roots, continuing to speak the language to each other and farm side by side. The area was so Welsh that they had their own Welsh church where sermons were given in Welsh and the headstone in the graveyard were written in Welsh. Throughout Iowa and the West, communities like this were scattered about, some Swedish, Dutch, Irish, German and any other immigrant group sticking together and building a new culture in America from the seeds of their old ones abroad.

Industrial agriculture ended this. Neo Agricultural business had no use for tight knit cultural groups, it needed bigger farms producing a more unified crop. By my grandfather's time the Welsh community was gone. His father was a banker while his uncle kept the farm, by the time my grandfather was nearing 20 years old the farm was on its last legs. My grandfather had no community ties to the area and was eager to leave. This is in no way a unique story to my family and it's one that continues to this day in increasingly smaller agricultural communities across the country.

So how does this new system of agriculture, which broke up these more traditional communities, work in the whole country? First, a farmer has to buy seeds, usually from a

regional big agricultural company, like Monsanto. Farmers then grow the crops, harvest them when it's time and sell the yield. All pretty normal sounding. Except, the crops have to be sold back to the company which sold the seeds. On top of that, farms are not allowed to keep some of the crops to use for seed stock next season because even though they bought the seeds and did all of the work to grow the crops, the company still claims to own the plant. (Graddy, 2003)

The only scenario where this system doesn't seem absurd would be if these companies were employing the farmers and providing things like healthcare, insurance and wages. If a company wants a paper written up by an employee it provides the worker the computer, printer, ink and workspace to create that paper for them. And when the work is done the company owns the paper. That's the agreement made between employer and employee. But if someone wanted to write a publishable paper and went into a library to do so, it would be absurd if the library then sued the writer for the work they did. But that's what the agricultural companies do. If one of those crops grows somewhere else or is in the field the next year big ag companies sue farmers, usually crippling them because of what is often an innocent mistake made over an insane rule. (Graddy, 2003)

The small bit of hope in this story comes from small farms near the coastal US. These farms often use modern equipment and techniques to farm, but do so on a smaller more sustainable scale. Even though they operate on a smaller level, these farms still get substantial aid form the government. (Jackson, 2003)This means the prices are comparable to food in grocery store. The complication is access and large scale distribution. People who can't leave the city are often unable to make it to farmers markets where these farms actually sell their goods. This type of farming has the potential to fix many of the problems in the current agricultural system in America. That being said, for this system to grow, these farms would continue to need

government support and something dramatic would need to happen to change the corporate control of agriculture.

The "Struggle for Maize" in the Tehuacán Valley

Mexico's agrarian communities have experienced major lifestyle and livelihood changes, from around 7,000 years ago when maize and other crops were first domesticated, to the arrival of the Spaniards and their relocation of indigenous people into agricultural labor towns, to recent times that are characterized by trade agreements like NAFTA and neoliberal capitalism in agribusiness (Fitting, 2011; Smalley & Blake, 2003). Elizabeth Fitting's ethnography (2011) in the Tehuacán Valley provides insight in how recent policies have affected rural Mexicans. Because this paper focuses on changes incurred by neoliberal capitalism, the changes in Mexican agrarian livelihoods shall be explored through the forces of the North American Free Trade Agreement (NAFTA) and the proponents of transgenic corn.

In 1994, NAFTA, established between the United States, Canada, and Mexico, was an effort by the Mexican government to provide its growing urban population with "cheap tortillas through grain imports" (Fitting, 2011; Nadal & Wise, 2004). By moving away from national corn self-sufficiency provided by "low-productivity" farmers and towards American-subsidized imported corn, Mexican consumers could have more of their staple foods for cheaper prices and displaced agricultural laborers could find work in the flourishing food export industry. However, while consumers were able to purchase tortillas for cheaper, employment opportunities in the Mexican food export industry didn't make up for the losses in the agriculture sector. With imported corn selling for cheaper than locally grown corn, many farmers couldn't afford to rely

on cultivating it anymore. This led to mass migrations of men who traditionally served as breadwinners in their households.

Many reasons led to the creation of the labor flexibility in the Tehuacán Valley besides NAFTA, like irrigation water shortages, and the Mexican federal policy changes preparing the agrarian sector for NAFTA. As the profitability of cultivating corn and the food security of the Mexican agrarian population both lessen, Fitting noticed how the lives of the San Jose townspeople of Tehuacán Valley changed in five ways: 1) people increasingly combined maize cultivation with migrant wage work remittances to support their families, 2) remittances from migration, especially from America, set those migrant worker families above others socioeconomically who didn't have American remittances, 3) wages were introduced into agricultural labor, which, like elsewhere, changed the social relations between locals (Li, 2014), 4) maize farmers were increasingly limited to older men, and 5) people did less intercropping (beans, squash, maize) and grew less maize varieties.

Within these overall trends, the San Josepeños population was affected depending on which generation they belonged to; the younger generation had little interest in corn due to its global-market-imposed unprofitability and migrated to the U.S. for wage work. Mexicans, especially Mexican men, have a history going back into the 20th century of providing seasonal labor for the U.S., spurred on by U.S. policies (Horton, 2016). Of the older generation that didn't migrate, they increasingly relied on corn, because unlike other crops like coffee beans, corn could serve as food crop *and* cash crop. With the occupational discrepancy between generations, the younger generation, subsequently, will have less collective knowledge and interest in maize cultivation and intercropping. Will that deep traditional Mexican knowledge be lost? What else is at stake?

The debates about transgenic corn disputed just that, rising in tension after the discovery of transgenic DNA in maize fields. The debates initially focused on biodiversity and gene flow, with biotechnology corporations and the U.S. prioritizing scientific concerns over "social" ones (McAfee, 2008). Countering the notion that the viability of transgenic crops should only be evaluated scientifically, campesinos and anti-GM organizations like In Defense of Maize shifted the debates to *culture*, saying that the campesino way of life and its products are the foundations of Mexican culture. Fitting quotes In Defense of Maize supporter and anthropologist Armando Bartra: "Peasants not only cultivate maize, beans, chile, or coffee, they also cultivate clean air, pure water and fertile land; biological, social, and cultural diversity… peasants cultivate the inexhaustible multiplicity of uses and customs that make us the Mexicans we are" (quoted and cited in Fitting, p.67). When these policy changes threaten thousands of people's livelihood and food security, such change not only threatens national culture, but also autonomy and self-determination, a right and part of culture in itself.

Suicide in India

Monsanto has spread to all corners of the agricultural sphere. India has had one of the longest and most complicated histories in regards to the Monsanto organization. A country and culture home to some of the oldest agricultural practices in the world now finds itself in the turbulent global capitalist agri-market. As Monsanto gains more power within the region, we have seen a noticeable increase in some farmers suicides. (Stone, 2002) At the high of the epidemic, as many as 500 farmers killed themselves by drinking pesticides in Warangal. (Stone, 2002) The interacting of Monsanto and the local peoples have given rise to a host of critical questions that should address in the global capitalist agricultural market. Using India as a case

study, we can examine some of these concepts that we see throughout the world that has come into contact with Monsanto and similar organizations.

Following the 1988 Seed Policy by the UN, in which many countries including India had too lax their regulations of seed trading, Monsanto has grown within the state and has lasting effects on the population. (Shiva, 2017) Home to some of the oldest farming traditions in the world, India now finds itself with an ultimatum. The ancient tradition of farming and living off the land to survive has come under fire as the Monsanto corporation seeps into the livelihoods of the farmers. Within India, cotton farming has always been a traditional way of life. However, Monsanto now owns about 90% of all seeds that are in use in the country [India]. (Shiva, 2017) This monopoly has led to a lot of farmers being "owned" by Monsanto through the process of seed debt. Farmers purchase the seeds from Monsanto with promises that the crop these seeds can produce will be hearty, and plentiful. While in many cases this may be correct, the farmers are left taking out massive loans from the corporation to cover the overhead, and if anything happens to the harvest, there is a much more probable chance that the farmer will not be able to pay off his debts. This inability to pay, in turn, creates a snowball effect in which the debt collects interest and the farmers, to continue farming, needs to purchase more seeds thus increasing his debt over time.

About three-quarters of the world's suicides take place in the developing world. (Carleton, 2017) The accumulation of debt from the Monsanto corporation has lead to many farmers losing their lands. Within in the traditional Hindu structure, to be within the Vaishyas caste, the class of merchants and farmers, and to lose your estate to the undermining deals of Monsanto is a shame that has grown too tough for some to bear. This trend within the sector has to lead to an increased suicide rate in rural Indian farmers. Despite the promises given by

Monsanto in regards to the stoutness of these seeds and crops, the environmental change even in the slightest can have terrible ramifications for the Indian farmers. A minor shift in temperature can significantly increase the rate of suicide in India now. (Carleton, 2017) According to Carleton's report, as little as a one degrees Celsius flux of average temperature can increase the number of suicides by about 70 cases. The spread of the capitalistic market in these areas has left the farmers with two choices; they can alienate themselves from their lands and in a way assimilate to the market's whims, or risk it that if the little upset can occur, they will lose everything. These farmers become stuck within the grasp of Monsanto and if their crops fail, or do not produce enough to carry over to the next year than suicide become a horrifyingly familiar alternative.

Activism in India:

While Monsanto may have a firm hold on the agricultural sector within India, there has been a raising counter social movement within India. Within recent years Environmental Social Movement Organization (ESMOs) have been increasingly active in Northern India. Not only are many ESMOs acting out of Human Right principles to combat the hold of Monsanto on the country, but have begun adapting economic, social-political, and cultural frameworks as well. The diversity of the organizations at work in India is staggering. While many global transnational agencies have recently begun to operate within India, such as the World Wildlife Federation and Greenpeace, it has been the increase of grassroots-based campaign that has been leading the charge in issues of environmental racism and degradation. Some organizations focus on the biodiversity at risk with the increased prevalence of Monsanto, such as Aaranyak or the National Biodiversity Authority of India. These groups take a scientific approach to the loss of

India's environment and livable land within, particularly, the northern regions. While other organizations ground themselves in a growing call for Human Rights within north India or religious ideology within the area.

While the risk to life due to suicide brought on by Monsanto is significant, recent studies have shown that the issues may be more dynamic than once thought. Some dangerous chemicals that are put into producing Monsanto's crops have severe runoff into the local rivers, which all feed into the larger rivers and thus the drinking water of India. (Leonard, 2014) In an attempt to take back their land, many faith-based non-government organizations have to spearhead the charge for a cleaner environment and to regain control of their lives. The growing activism within India has garnered interest on the global stage as other countries are beginning to see the situation. This increase of activism is a direct counter movement to the modern alienation of the land and water that the Indian population was forced to deal with in recent times due to the spread of Capitalism in the country. The question remains, however, if the people's voice will be able to achieve what they want or be able to have a lasting impact on the country.

Bt cotton in India:

Bt cotton was introduced to India in 2002 through a joint venture by Indian agri-biotechnology company Mahyco and Monsanto. The main purpose of the genetically modified cotton was to combat against the threat of bollworms. The name comes from strains of the bacterium Bacillus thuringiensis which produce toxins that are harmful to a variety of insects. The gene coding for Bt toxin is inserted into cotton as a transgene which then allows the cotton to produce a natural insecticide in its tissue. The goal of Bt cotton in India was to increase yield of cotton due to the control of three bollworm types (Choudhary 2010). With the cotton itself

fighting against pests, it was meant to reduce the cost of pesticides previously needed to keep the bollworms away.

Bt cotton came with disadvantages along with the increased yield of cotton. Bt cotton seeds are significantly more expensive than non Bt seeds. The Bt seeds, like other hybrids, lose vigor after one generation, which requires farmers to buy new stocks every year (Jayaraman 2012). Another problem with the Bt seeds is that it is ineffective against common pests which would require additional pesticides to fight off. Bt cotton seeds require more water and fertilizer to successfully grow and prosper. While farmers with an integrated irrigation system have had more success in the cultivation of cotton, the problem arises with farmers that rely on rain to grow their crops, which isn't very reliable in places such as Maharashtra which are prone to droughts. Insufficient amount of rain would lead to crop failure which would then lead to buying more seeds to compensate for the previous losses and as a result bring farmers to debt and possibly suicide. There are three specific characteristics associated with high-risk farmers: growing cash crops, having marginal farms of less than one hectare, and those with debts of 300 Rupees or more.

Bt cotton also epitomizes the concept of the "commodification of everything" by Immanuel Wallerstein (1983). Every part in the production of cotton is already heavily commodified due to the way cotton is made and how many assorted products it can become but with Bt cotton and Monsanto patents, the DNA of these seeds are also commodified and sold to the farmers of India. The genes strands present in Bt cotton is also regulated by Monsanto and is not to be used or mixed with other crops. One of the reasons why the effectiveness of the cotton seeds reduces after they are cultivated is so that the farmers have to keep buying the seeds every year but also, so the gene can't be used in other crops without the approval of Monsanto. By

keeping the farmer from gaining anything extra from these expensive seeds, it also continues the idea of debt creating more debt by Graeber (2014). Once the farmers get into the vicious cycle of debt, there is very little to help them get out of it and can lead to the extreme case of suicide.

Conclusion

As the neoliberal food regime and its powerful corporations seek ever-increasing profits, agrarian communities and livelihoods become disrupted and transformed all over the world. However, as communities and whole nations lose food autonomy, sovereignty, and economic stability, people suffer. In the case of America, entire farmer communities have disbanded. Across the globe, India finds itself in a difficult changing era of social and environmental change. In India we have found that the actual cost of a growing capitalistic market has been the loss of hundreds of lives as well as traditional cultures and lifestyle. In direct conflict with the rise of the Monsanto grasp upon the country, activism and staged social protests have become almost a common occurrence within the Indian socialscape. While the long term impact of these organizations both within India and globally are still yet to be seen, the movement has brought to light on the global stage. In Mexico, maize cultivation and quality heritage is threatened as American transgenic imported corn dominates the market and the younger generation can't afford to continue the economic and cultural activity of farming maize. So much is negotiated, threatened, and changed in this ancient practice of agriculture. Agriculture was the catalyst of human civilization as a whole and if the proponents of neoliberal capitalist agriculture are not challenged and farmers' voices continue to be ignored, much will be lost.

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