GLOBALIZATION AND CHANGING RELATIONS AMONG MARKET, STATE AND CIVIL SOCIETY: A COMPARATIVE ANALYSIS OF PATAGONIA AND IOWA*

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Globalization and Changing Relations among Market, State and Civil Society

Neo-liberal government policies created in the mid-1980s reduced barriers to the international flow of capital, goods and services worldwide. Value-chain coordination and integration increased (Hendrickson and Heffernan, 2002; Tweeten and Flora, 2001; Cavalcanti, 1999). Distribution gained importance over production in the process of accumulation and increasingly controlled the food value chain (Busch and Bain, 2004; Reardon and Berdegue, 2002; Ponte and Gibbon, 2005). In order to increase capital accumulation, firms negotiated, tested, redesigned, renegotiated, retested and implemented different mechanisms for control of value chains. The new patterns of accumulation disadvantage producers of raw commodities, particularly in the food-based value chains. In the process of becoming more demand oriented, the conventions around certain commodities changed from the market convention to the industrial convention. The inability of the producers' organizations to institute a civic convention for coordination of the value chains, despite mobilization of civil society in response to consolidation of production, further disadvantaged them in setting the norms, regulations, and enforcement that might have enabled them to offer another demand-driven convention, the civic convention.

The response of civil society in two very different settings triggered our interest in this unusual comparison of hogs and fruit. Sitting together in a farm kitchen in Río Negro, in the Argentine Patagonia, with a group of farm women gathered together to protest what was happening to their prices and their control over production reminded us of similar meetings in farm kitchens in Iowa. Middle class families, who were the heart and soul of their communities, were experiencing serious cultural and economic shocks and displacement. Their commonality is that prior to the 1990s the value chains used the market convention and family managed farms provided agricultural products to regional, national and international markets. Both provided economic stability in their regions. And both were now forced to provide hogs or fruits with much more specific qualities that responded to industrial convention demands for specific qualities at designated prices. Differences between the two production systems were enormous in terms of the exigencies of production

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(such as degree of seasonality) and the socio-political regime in which they were located (a rich Northern state dominating the world system versus a Southern state in fiscal crisis). We wanted to learn how market, state and civil society negotiate to enhance accumulation in the shift to the industrial convention and how power is wielded in those negotiations. We picked these two cases because of our familiarity with them, although we originally thought there would be little in common between animal agriculture in the heart of the U.S. and fruit production in a relatively peripheral region in Argentina. We looked for common elements in the responses of state, market and civil society actors, as well as the differences, explained corporate strategies that bridged continents, cultures and crops.

Conventions theory

Conventions theory was developed by French economists in order to better understand coordination in economic, political and social life through chains and networks (Thèvenot, 1995, 2002; Morgan, et al. 2006; Boltanski and Thèvenot, 1991; Thèvenot, et al. 2000). Conventions are shared norms and values, standards of uniformity, and the rules and institutions to apply and enforce those standards. Most of the research around conventions theory in agriculture has been around the formation of alternative value chains, built on either the civic convention (particularly looking at organic agriculture and fair trade (Raynolds, 2000, 2002, 2004)) and the domestic convention (*terroir* and eat local campaigns (Barham, 2003; 2002) or, as Kerwin (2006) refers to it, the regard convention).

For much of agriculture, the shift from the market convention, where the value the lowest price per unit, and producers were rewarded for volume with minimum quality standards, to the industrial convention, where multiple values related to specific end users, had dramatic impacts in terms of loss of control of the production process. Incorporation in the new, more integrated value chains based on product characteristics required producers to adopt new mechanisms of production, including more sophisticated record keeping and attention to a multiple quality standards in order to participate in the market. While the state may determine and enforce the minimum quality standards around food safety, the environment, and labor, market actors set and enforce the quality standards concerning characteristics of the production process and the product in the industrial convention (Henson and Reardon, 2005).

We compare changes in the behavior of market, state and civil society actors in the rapid movement from family managed farm production (utilizing the market convention) to vertical coordination (using the industrial convention) in two conventional production systems: hogs in Iowa, USA and fruit in southern Argentina. This comparison provides insight into the similarities and difference between the structures of capital accumulation in a core and a peripheral country. Dixon (1999) argues that the relations between consumption and production are becoming much tighter, shifting power in commodity and food systems. Reardon and Berdegue (2002) and Reardon, et al. (2002; 2004) demonstrate the power of supermarket chains on fresh fruits and vegetables and dairy in Latin America, while Hendrickson and Heffernan argue, "In the global food system, power rests with those who can structure this system by spanning distance and decreasing time between production and consumption" (2002:349). Control of the distribution system by setting and enforcing product standards drives value chains. And further, transnational private regulation by market actors responds demands by retail chains for what they calculate can sell most profitably while maintaining market share (Bartley, 2007).

As a result, medium-scale producers in the United States and Argentina face similar issues in terms of the exploitation of propertied labor through the contract farming process (Davis, 1980). Non-market civic conventions prevalent for in each country (concern for labor versus concern for the environment) triggered the pressures that made contracting less risky than owning for the integrated firms. Other market, state, and civil society actors influence the pattern of accumulation by creating alternative value chains and passing and enforcing laws and regulations related to labor, the environment, and commerce.

The current climate of neo-Liberalism encourages free trade while deregulating land, labor and capital. The market has been the driver, and the state the facilitator. Civil society is often the intermediary, determining how conventions are established and enforced. The struggle is around who sets what standards for which agricultural products and which externalities of the agricultural production process.

We describe the shift in the conventions governing the hogs and the fruit value chains from market to industrial, building on those laid out by Thèvenot, et al. 2000. We analyze how governments and firms negotiated over rules and regulation that are driven by conventions outside of the qualities of the products, and how civil society attempted to influence how standards are set and enforced. Finally, we compare the forms the value chains have taken in light of both the internal logic of the market driven shift in conventions and the external pressures civil society in response to the violation of other conventions.

The settlement period and the rise of the market convention

In the nationalist era of settlement in both regions, the federal expansion project was congruent with the spread of family managed farms as the best way to draw labor to "wilderness" areas (Pfeffer, 1983; Gasteyer and Flora, 2000). Small-scale production units and the political legitimacy they enjoyed justified extensive capital investments by the state as well as private capital to open new lands in both the state of Iowa and the provinces of Río Negro and Neuquén.

Iowa

Farmer colonization in Iowa was complete by the 1880s, when land that was initially wetlands was drained in order to produce crops fed to livestock. European settlers in the Midwest operationalized their vision for the prairies as farmland was exploited for maximum agricultural production through technology and capital. The capital, while primarily domestic, came from out of state, and farm products (crops and animals) were primarily exported to the rest of the country.

The state was a critical actor in providing both capital and technology. These two driving forces changed the Midwest's landscape and were historically critical to the colonization project. State policies provided generous incentives to built the railroad and drain the wetlands. Both required substantial subsidies to the private sector. Railroads provided Iowa the means to import the equipment necessary to drain the swampy prairie and to convert it to farmland, which settlers were paid to do by the U.S. government (Schwieder, 1996; Bogue, 1994). Capital and technology were configured based on the perceived need for state intervention to control land and nature that was part of the colonial settlement process. Those state-subsidized tools tamed and changed Iowa's landscape to meet the interests of the market. Since the goal of the market was "more" to feed a growing industrial labor force, the market convention prevailed.

The process of land accumulation and reduction in the number of production units began almost immediately after colonization. Railroad conglomerates sold speculators the land titled to them by the U.S. government in exchange for railroad construction. The speculators in turn sold it to settlers. Additionally, the Homestead Act of 1862 provided settlers government land at low costs, although that land, too, was quickly consolidated into larger units. Farm families grew the grains that fed the hogs, and the manure went back into the fields, often distributed by the hogs themselves. Hogs were marketed locally in sale barns and slaughtered either in small local meat plants or in large, unionized packing plants in urban areas.

Many farmers had farrow-to-finish operations well into the 1990s. They kept sows and sought appropriate boars for semen to inseminate the sows for desired characteristics, most recently leanness, and litter size. Some farmers also fed out the weanlings from the farrowing operations, and some farrowing operations fed out their hogs to market-size and sold other hogs to neighboring farmers to feed to slaughter weight.

Since hog prices tended to be counter-cyclical to grain prices, hog production was widely dispersed, with many farms throughout Iowa having a small number of hogs on farms. Many of these farms came to be "century farms," meaning that either the husband or wife was a descendent of the individual who owned the farm at the time of the settlement period. Hogs were a commodity product of these farms, and they served to stabilize diversified agricultural production.

Patagonia

The fruit growing valleys in North Patagonia were settled by migrants from Spain, Chile and northern Argentina who came in the wake of the "Conquest of the Desert" (1875-1879). The vast area of Patagonia was opened for new settlers and immigrants, as the native inhabitants were defeated. Ex-soldiers were given small plots of land and organized into battalions to dig the first irrigation canal. Once settled, the new migrants served as justification for massive state investment in irrigation and transportation infrastructure. The Argentine army cleared the land of the "savage" people, while British capital modernized the land by financing dams and irrigation projects. Fruit production was destined for urban markets, first to Buenos Aires, then to international ones (De Santillán, 1965; McLynn, 1980).

Families settled on land with irrigation grew trees for windbreaks and planted vegetables and orchards. Irrigation along the Río Negro produced "wonderfully rich fruit and wine…" (White, 1942:6). Farmer colonization was complete in the 1930s. The fields, now protected from the constant wind and overcoming the arid climate through irrigation systems, produced a wide variety of fresh fruits and vegetables that was sometimes processed into dried fruit and juices. Often these value-added enterprises were developed as much to absorb family labor as to retain value. However, seasonal labor was needed for a variety of tasks, from planting to pruning to harvest, and many migrants came from Chile to work. *Mapuches*, an indigenous people whose ancestral lands are in the Andes and foothills separating Argentina from Chile, picked the fruit and packed it for export. Their Andean origins allowed them to escape the genocide experienced by their desert-dwelling indigenous contemporaries.

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Yet because of their ethnicity, they were often denied the labor rights available to other citizens of both Chile and Argentina.

Petty commodity production of hogs in the Midwest and fruit in southern Argentina continued long after multinationals dominated other parts of the food industry. This was in contrast to chicken production, which was quickly industrialized and vertically integrated (Fink, 1986; Dixon, 2002; Fulcher, 1992; Stiffler, 2005).

The role of the state in the establishment of transnational private regulation of the food chain

Opening markets and decreasing regulation and oversight greatly increase the ability of transnational firms to maintain internal control and increase external freedom as they seek to maximize firm profits and net firm worth, the two sterling indicators of market success in an international capitalist economy. These policies, in turn, allows the processes and supermarkets to establish the standards for the industrial convention (Bartley, 2007)

The impact of neo-liberal state policies

Rules set to open the economy have particularly affected fruit producers in Argentina. The repeal of laws against direct foreign investment greatly increased the control of fruit processing by transnational firms. New flexible labor legislation promotes low wages and unstable and unprotected work, challenging the established division between formal-regulated vs. informal-unregulated labor (Olmedo and Murray, 2002). This legislation provided a definite advantage to highly vertically integrated firms by reducing the costs of labor.

In the U.S., decline in the power of organized labor, which began under Ronald Regan in the 1980s, and increased freedom of industrial consolidation through relaxation of anti-trust laws increased the consolidation of meat processors, and with fewer buyers, gave substantial transaction cost advantages to integrated hog production. Weakening of the labor laws made it easier to keep wages low. In the case of hogs, the labor for CAFOs increasing came from new immigrants, particularly from Latin America.

Initial attempts at complete vertical integration

In the U.S. and in Patagonia, early efforts to master the efficiencies of vertical integration led transnational companies buying the land and investing in the infrastructure to produce the product it then processed and distributed. In the Midwest, Seaboard Farms invested in a completely integrated operation next to its processing plant in Guymon, Oklahoma. Not only was there a considerable capital outlay that reduced their corporate flexibility despite the incentives and tax relief offered by the state of Oklahoma, the county and the city, but there was considerable pressure on them concerning the workers employed and the environmental problems generated (NCRCRD, 1999; Mayda, 2001). The transnational corporation picked Guymon precisely because it was NOT a hog-producing area, but a cattle town. Further, the impacts in Guymon fueled protests in other Kansas and Missouri, which cost the corporation time and money in expanding. A similarly integrated plant in northern Missouri felt similar pressure (Constance, et al. 2003).

In Río Negro and Neuquén, an Italian-based firm exporting fruit gained access to land and establish technology-intensive production units in order to be more responsive to shifts in market demand. However, this visibility increased the surveillance as to their environmental and labor practices. They soon shifted to contracting land and labor from particularly medium producers, but providing everything else centrally (Gutman and Lavarello, 2002).

The shifting role of the family farmer from independent entrepreneur to a dependent link in the transnational value chain has played out differently in both countries, with some strikingly similar results in terms of centralized accumulation and decentralized risk.

Labor as a factor in maintaining family-managed farms in the market convention

In both settlement situations, state investments in infrastructure – directly through the construction of irrigation systems in Patagonia and railroads in Iowa and indirectly through payments to farmers to tile and drain fields in Iowa – was the basis for the family farm settlement pattern. The fact that the land went to yeoman farmers, who were often veterans of wars to maintain or expand national boundaries, helped justify the public investments.

Transient labor was used in both early systems for harvest, although grain harvests in Iowa were mechanized by 1940, ending the need for threshing crews (Rikoon, 1988). When hogs were raised in relatively small numbers (up to about 50 sows or 200 feeder pigs), family labor was sufficient. As hog production became industrialized, more labor was hired. Tasks became differentiated, with the less skilled tasks going to more marginalized workers – the rural poor or migrant laborers.

Labor in fruit packing plants became less seasonal in order to reduce inefficiencies due to low worker continuity, inadequate worker qualifications, and lack of multiple skills possessed by an individual worker. Improved genetics increased productivity and length of season for the pit fruits, allowing staggering harvests, which provided more working months per year. In packing and refrigeration, there was an increase in continuity and decrease in seasonality, but with a lower skill level required. These technical changes required greater formal knowledge, and technical and managerial positions previously by family members, whether or not they had formal training to undertake those tasks, were now filled based on expertise. Even within family farms, ownership and management became increasingly separate. We found fruit producing families deliberately channeling each child into a different specialty in order to keep the operation in the family.

In both commodity systems, hogs and fruit, much value is added after harvest. Meatpacking plants slaughter and disassemble the carcasses. And as the value chains became more industrialized, post harvest processing became more differentiated, just as the genetics of the hogs and fruit became more specified by the retail chains.

Workers in fruit packinghouses clean, grade and treat fruit according to its destination. Meatpacking is extremely labor intensive compared to other steps in the value chain. However, the labor demand is year round, now that refrigeration keeps meat fresh despite hot summers. In the U.S., workers in meatpacking plants organized early and militantly, as did the butchers who prepared the meat for sale in retail markets. For fruit, packing is as labor intensive as fieldwork at harvest. Labor demand is seasonal, lending itself to either seasonal migration or long periods of unemployment. While unionization is difficult to maintain under circumstances of high labor turnover, strong urban unions in Argentina pushed through legislation which gave workers a great deal of protection -- when the laws were enforced.

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In order to evade labor laws, transnational firms helped workers organize into work cooperatives (Tskoumagkos and Bendini, 2000). Thus the workers were self-employed, removing the responsibility for labor welfare from the firm to the worker (Gallegos and Bendini, 2002; Steimberger and Bendini, 2003).

Who hires the labor? Ownership versus contracting

To increase accumulation, both meat and fruit packers sought to avoid organized labor and government enforcement of labor laws; contracting with family growers was one strategy. Family businesses can be less costly because their workers are not paid a formal sector wage, do not have taxes withheld, and receive no benefits, resulting in lower overhead for their employers (Reardon and Berdegue, 2002).

As labor law enforcement declined, even larger family farms were less likely to be regulated than were transnational corporate orchards (Bendini, 1999). Thus, despite attempts of several large fruit integrators to set up orchards, it became more cost and risk effective to contact out the fruit. But that left control of the production process in the hands of producers with varying degrees of skill and different germ plasm which led to heightened variations in quality. Transnational corporations who wished to maintain control of production but escape responsibility for labor extended the probationary period, which allowed them to lay off workers before they were eligible for benefits, a tactic also used in the U.S. by meatpacking plants (Grey, 1995; Gouveia and Justa, 2002; Gray, 1995). Because of the need for continuity in the work force, that was not enough. Transnational companies with Argentine interests encouraged (and sometimes organized) “labor cooperatives,” and as cooperatives of workers, they did not have to pay benefits. The cooperative “members” were thus “liberated,” from social security and health benefits that were otherwise available to workers who were hired directly by transnational companies. In the U.S., as meat packing moved from urban to rural areas, the more militant unions were driven out by management (often under bankruptcy reorganization), and new unions were formed with a more management friendly approach (Fink, 1998; Gouveia and Justa, 2002).

Agriculture production enterprises are exempt from many labor laws in the U.S. Further, hog production has grown the most in “right to work” states, where labor unions are by law much weaker than in states where such legislation has not been passed. Thus the power of labor to enforce wage or working conditions is quite low in hog production regardless of the size or corporate structure of the enterprise. In contrast, in Argentina, up until the recent past, large corporate enterprises have been more subject to labor law enforcement than the independent fruit growers.

The Industrial Convention: Specifying qualities

Commodity hog production has moved to leaner, more homogeneous animals, but homogeneity is paramount, including strict control of genetics. Fruit, on the other hand, has responded to differentiated markets. There is increasing demand for multiple characteristics from expanded varieties of fruit. Thus fruit growers are under pressure to constantly respond with new popular varieties in homogenous sizes and colors. Similarly, as competing countries such as Brazil, devalue their currency in January, 1999, pressures to reduce production costs further increased.

The industrial convention is enforced through new procurement practices that include:

- consolidating purchases in distribution centers and sourcing networks,

- increasing chain coordination through contracts with wholesalers and growers,
- requiring private standards and certifications in addition
- constant new investments in production technology and equipment (trucks, cooling sheds and cold chains), in packing, in management and coordination to ensure quality as defined by the retailers,
- increased consistency and timing, and
- larger volumes supplied to consolidated buying points,

in order to keep costs down(Reardon and Berdeque, 2002, 381-382). Growers incur significant costs to ensure product homogeneity, co-ordination of harvest, centralized grading, sorting, packaging and delivery, and administration (Steimberger, 2001). Larger volume means spreading the costs over more production units. Thus the imposition of the industrial convention in the contract agreements favored larger operators.

Specialized fresh fruit and vegetable wholesalers control access to supermarkets (Reardon, et al. 2002). These wholesalers are increasingly vertically coordinated with the fruit packers, and who respond to the multiple demands of distinct end users in their sorting and packing processes (waxed, not waxed, same size, etc.).

As vertical integration increased during the 1990s, a number of transnational firms sought total vertical integration by buying land and hiring operators to produce hogs in the U.S. and fruit in Patagonia. Murphy-Brown still owns over 200 hog farms in North Carolina. However, state laws against corporate ownership of land in Iowa, coupled with the emergent problems of such integrated operations as Seabrook Farms in Oklahoma (NCRCRD, 1999), has lead to increased contracting out of the production function, while retaining control of the animals and tress and the production. These newly-differentiated property rights that favor the transnational corporations makes it almost impossible for independent producers to survive unless they are very well organized and establish alternative value chains through linkages with civil society and alternative market organizations. One of the ways to do that it to definite alternative product characteristics than that provided in the industrial value chain.

The move to the industrial convention has made market access increasingly difficult for independent produces. The terms of contracts become increasingly more specific, to the point that the *chacarero,* the family farmer, provides land to grow the fruit and contracts labor managed by the technicians hired by the transnational fruit corporations. This arrangement leaves the *chacarero* with the responsibility for following labor and environmental laws, but few resources to do so.

Producer Response to the Industrial Convention

Argentina

Chacareros, the traditional Patagonia fruit producers, responded individually by renting out their land to other producers, selling fruit for industrial processing, contracting their product, taking governmental credits instead of selling their production, and selling goods directly at farmers' markets. While contracting allows them to keep their land so that the transnational firms can finesse labor laws, farm income declines and the alternative strategies do not return them to their previous middle class status and role in the area.

In Argentina, there are two main fruit grower organizations, one for the large producers, known as *fruticultores*, and the smaller, family managed growers, the *chacareros*. They had two very different organizations. CAFI, the Argentine Bureau of Integrated Fruit Growers, represented the larger growers in the north central part of Argentina. Local Producer Bureaus (Camaras de Productores) brought together small and medium sized producers, and the local entities make up the Federation of Fruit Producers of Río Negro and Neuquén, composed of independent producers and non-exporting integrated producers. The organization also included very small producers, known as *pobladores*, people who lived near the orchards and primarily provided their labor to the land owners.

The Federation consistently made demand on the state in order to maintain prices through a variety of state investments in price supports and infrastructure since the 1970s (Bendini and Palomares, 1993). Under the market convention, they sought a variety of mechanisms to increase their comparative advantage in producing lots of fruit, including protection from imports from neighboring countries, a threat that increased in 1991 with the passing of the convertibility law that put the Argentine currency on par with the U.S. dollar in order to control hyperinflation and spur economic growth. During the 1990s, the U.S. dollar strengthened against other currencies. This made imports of fruit from competitors, such as Chile and Brazil, less expensive, driving down fruit prices for the producers. to confront the worsening economic situation.. The situation became even worse when Brazil floated its currency in 1999 , greatly decreasing its value and reducing further any price advantage Argentine fruit might have.

In 2000, the Fruit Growers Federation produced a document called "Bases and Conditions for a Fruit Program" (Federación, 2000). The document concentrated on solving the problem of taxes and financial liabilities of the producers, as the Federation considered that the existing program of refinancing debt by the National Argentine Bank insufficient. They also made demands to increase state investment in infrastructure to support fruit production, alternatives for transition, conversion, or relocation of small and medium producers, and horizontal coordination among producers by the state to increase their bargaining power. They proposed a Fruit Restructuring Program adapted to the regional economy, to be developed through a bargaining table (Mesa de Concertación) to be convened by the governors of Río Negro and Neuquén. The federal government authorized he mesas de concertación in 1989. The goal was to increase the transparency of market, state and civil society actors and to reach consensus on collective action

In June of 2001, as part of general anti-recession measures, the governors of Río Negro, Neuquén and Mendoza (a much older fruit growing area that specializes in wine) convened a broad-based "Table of Pre-competitive Agreement of the Chain of Apples and Pears" as part of their antirecession efforts in order to increase competitiveness and increase employment. Participants included not only the local bureaus of the Federation, but also representatives from the federal and state governments of the economy, interior, work and agriculture, organizations of the integrated fruit growers and fruit distributors. They came up with proposals for interjurisdictional and intersectoral collaboration, including a branding agreement and complementary agreements between the various levels of government and the producers and distributors (Bendini, 2002; Bendini and Taskoumagkos, 2002). They also declared a public emergency, as demonstrations and road blockages were being carried out by the local chapters of the Federation, including *Mujeres en Lucha*

(Women in Struggle), an organization of women in fruit producing families from around the nation. Using the farm tractors to block the road, the women pulled trailers behind the tractors with fruit to give to those inconvenienced by their action.

While market convention competitiveness in terms of exchange increased with the exit from convertibility in 2001, the members of the Federation had little negotiating power in the restructuring of internal prices and wages, the consequences of pesticide use, and the conditions of export of fruit. In response, the Federation reoriented its demands toward increased transparency in sales contracts. However, the solutions that they sought were again based on the market convention and price per unit, rather than differentiation either to make the industrial convention more favorable or to institute a civic or domestic convention.

Iowa

While populist groups early noted the increasing concentration in the pork industry and its implications for family farmers (Strange and Hassebrook, 1981), the impact on Iowa, with its highly dispersed hog production system, took more time (Flora, et al. 2007). Fewer farms produced more hogs. For Iowa producers increasing integration of the pork value chain let to control of hog genetics by just a few companies, driving out producers of "seed pigs" or individually owned breeders of sows and boars. Decreases in the price of hogs, even when grain prices were high which reversed their countercyclical advantage, put huge pressure on hog producers. Further, consolidation in the meat processing industry restricted the number of buyers (MacDonald, et al. 2000; Zering, 1998). Some pork producers put in their own integrated operations, contracting fattening weaned shoats to neighboring farms with fewer resources. Other hog farmers went deeply into debt to construct the hog "hotels" and manure lagoons required by the companies that contracted them to raise hogs (Banker and Perry, 1999). Indeed banks strongly supported these investments linked to contracts, as they saw such loans a wonderful new source of revenue (Brunoeler, 1998; Walster, 1998). The differentiation among producers created a split in the Iowa Hog Producers – and similar organizations in other states – between big pigs and little pigs (Page, 1997).

The small pig faction of the Pork Producers in several Midwestern states Iowa, Illinois, Missouri and Minnesota) became part of the Coalition for Family Farms. The CFF is a coalition of farm and rural groups in four states that fought factory farms and corporate concentration in agriculture since 1995. Since 1999, these groups have sought, unsuccessfully, to end the mandatory pork check off, which they view as a tax on every hog sold in the U.S. that is being used to promote corporate concentration in the pork industry. In that effort, they joined with the National Family Farm Coalition (NFFC), a coalition of 30 farm and rural groups that work on federal farm policy issues. Despite their numerical success in referendums of pork producers based on numbers, the United States Department of Agriculture, which oversees the check off program, has invalidated the results and the check off continues, promoting "the other white meat" and funding ways to make hog manure less odiferous.

However, by drawing on research conducted by Iowa State University on alternative ways to produce hogs more humanely in hoop houses, using non-industrial genetics that allowed for more intramuscular fat that gave more taste and better cooking characteristics, some Iowa hog producers stayed in business using the resulting civic convention. Linking to California-based Niman Ranch, where Bill Niman "raised his animals using traditional, humane husbandry methods and wholesome natural feeds." (The Niman Ranch Story, 2007). He developed a high end market, with steadily increasing demand. In 19995, at the very time that many hog farmers felt compelled to move to contract growing to the major pork integrators, Paul Willis, owner of Willis Free Range Pig Farm in Thornton, Iowa began working with Bill, producing tender, well-marbled pork that gathered a national following. Willis then recruited other hog farmers to use implement a civic convention in producing hogs with decidedly non-industrial convention characteristics, which, while contract driven, provided a premium price and much more farmer control of the more artisanal production process. The Niman Ranch website states, "All of us at Niman Ranch are committed to fulfilling the vision upon which the company was founded - to bring the finest tasting meat possible to customers while practicing the highest standards of animal husbandry and environmental stewardship." This use of the civic convention allows farmers and consumers to understand the characteristics in terms of both process and product. The civic convention was totally controlled by the market sector, linked to an important and growing niche demand. Farmers must follow a strict production protocol, with more record keeping and careful tracing of all inputs used. But, like organic agriculture, the records allow the documentation of the civic convention which provides the key characteristics of the pork produced.

Local negotiation of sectoral state policies was attempted by producers in Iowa. In Iowa, those policies revolve around the environment with demands for local control over the establishment and expansion of confined animal feeding operations (CAFOs). The producers called upon a value important under the civic convention – environmental quality – in order to stop factory farms. However, that still left them within the market convention in terms of the hog value chain.

The sectoral policies addressed in Argentina revolved around prices and labor costs, based on the market convention – price per unit – and required a greater role of the national and provincial state in guaranteeing prices. The globalization of consumption was the driver of the move to the industrial convention in the Patagonian fruit industry (Bendini 1999, 2002). Bendini found increasing integration of agriculture, industry and marketing in the fruit industry. International capital is linked with local integrated firms; joint ventures are a mechanism for further concentration of marketing.

Civil Society

While workers' organizations have been greatly weakened in both countries in terms of production and processing, producer organizations are much stronger. The Pork Producers have both state and national organizations in the U.S., as do fruit growers in Argentina. In the U.S., civil society has organized in response to the environmental hazards, which are part of the industrialization of hog production, providing a counterweight to expansion.

In Argentina, civil society in general was supportive of grower claims, as direct state indirect interventions to make the market convention profitable are more accepted than in the U.S., where cheap grain that hog farmers use in hog production is subsidized by commodity payments, countercyclical payments, and deficiency payments, among others.

The Federation is now located with the Secretary of Fruit Production in the province of Río Negro, although it covers its local Bureaus in both Río Negro and Neuquén. It works to provide a variety of legal representation and technical assistance to small and medium fruit grower based on the market convention. They argue that smaller scale production allows them to produce a higher quality fruit at a lower cost, due to the personal attention the producers can give to their fruit trees. The Federation's goal is to represent small and medium fruit producers when decisions are made regarding labor legislation, new laws, phytosanitary regulations, opening new markets, control of monopolies and oligopolies, good agricultural practices, traceability, export assistance, marketing projects, media campaigns, weather forecasts, and other information to help producers be profitable and minimize their environmental impact (Federación, 2007).

Iowa

As in many states, Iowa's laws against corporate farms made it difficult for pork processors to own the farms that produced the pigs (Hamilton and Andrews, 1993), and the strong public outcry, particularly around environmental issues, in states where corporate farming was permitted, such as Missouri (Constance, et al. 2003), Oklahoma (NCRCRD, 1999; Mayda, 2001) and Texas (Constance and Bonanno, 1999), document wide-spread civil society mobilization against fully integrated hog production when it was allowed. The concern of community residents about the potential disruptions in the social structure and environmental quality of the move to confined animal operations stirred a number of grass roots oppositional movements (DeLind, 1998, 1995; Durrenberger and Thu, 1996; Thu and Durrenberger, 1998).

In The Midwest of the United States has a history of populist movements where grassroots groups resisted market and state efforts to limit the options of small producers. As a part of the Chicago-based National People's Action, Iowa Citizens for Community Improvement was founded in 1975, primarily around urban issues of low-income housing issues, neighborhood preservation, and community reinvestment by financial institutions. They achieved a number of legislative and administrative victories, particularly on issues of tenant – landlord relations. With the U.S. farm crisis of the late 1970s and early 1980s, ICCI moved into rural areas, the only affiliate of National People's Action to do so.

The ICCI began organizing farmers and rural residents in 1982 to "fight for fair farm prices and address problems associated with high interest rates and rapidly increasing farm foreclosures. Since then, they have focused on a variety of economic and environmental issues, including sustainable agriculture, credit and lending policies, conservation and corporate concentration in agriculture. When there was a split in the Iowa Pork Producers on the issue of vertical integration of hog production, beginning in 1995, many of those opposed to it joined with ICCI. ICCI's current rural organizing is focused on factory farms and livestock concentration linked to environmental protection, food from family farms federal farm policy. They seek to:

- Stop the spread of large-scale factory farms (hogs, chickens, dairy) and corporate concentration in agriculture at the local, state and federal level.
- Promote responsible economic development that respects the environment, local communities, the rights and dignity of workers, and Iowa's tradition of family farms.
- Assist family farmers in marketing their meat and produce directly to consumers in order to receive a fair price and provide a safe, affordable, locally-grown product.
- Protect Iowa's rivers, streams, air and land from pollution caused by

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industrial methods of agricultural production.
- Promote a federal farm policy that would allow farmers to receive a fair price for their product, establish a farmer-owned grain reserve, and provides for land stewardship grants and incentives.

ICCI uses community-organizing strategies and techniques that encourage citizen participation, hold institutions accountable to grassroots people, and emphasize issue and leadership development. In response to the factory farm issue, they held public meetings, organized and implemented direct action protests and rallies, sent out well-timed press releases, and conducted leadership training sessions to encourage action against corporate hogs and factory farms. They favor local control of the licensing of hog lots, in face of the failure of the state to set limits.

In order to make their action cumulative on a regional and national level, Iowa CCI works very closely with other state-based groups. ICCI is a member of the Campaign for Family Farms, as well as the National Family Farm Coalition (NFFC).

However, ICCI and environmental groups have not been able to rescind the state prohibition on local regulation of CAFOs, as the agricultural committees of state legislatures are dominated by commodity groups, particularly the big pig faction of the Iowa Pork Producers.

Environmental Laws and Corporate Structure

Hog production and pork processing produces lots of vile-smelling waste through manure and the processing itself, which makes its environmental impacts more visible to the middle class likely to mobilize politically. It also threatens water quality when carried out in large confinement operations (Flora, et al. 2007). In such facilities, manure, which has been diluted by a great deal of water used to clear out the stalls (substituting water for labor), is stored in huge constructed lagoons. Even in operations, such as those promoted by Murphy-Brown LLC (one of the largest pork producers in the world and part of Smithfield Foods, largest vertically integrated producer and marketer of fresh pork and processed meats in the United States), where manure is stored in huge steel tanks rather than lagoons, the manure must be transferred and when that transfer occurs, and manure spillage – and water contamination – can occur as pipes get disconnected or leak. Air and water contamination, and the concomitant health risks to communities that are downstream or downwind, present a major place-based risk.

Local and state governments are increasingly seeking to regulate the outputs of confinement animal feeding operations (CAFOs), and the Federal government is also placing environmental regulations on CAFOs (Jackson, et al. 2000). These regulations apply to operations above a certain size, and generally hold the CAFO operator responsible for environmental damage. Sanctions for pollution include heavy fines and the risk of being closed down. However, these are not often enforced.

Fruit production in the Rio Negro watershed is dependent on high uses of pesticides. The resulting pollution of air and water directly affects the field workers and the low income households that live on the edges of the orchards and use the water from the irrigation ditches, becoming a labor problem as well as an environmental problem. There is little or no legal protection for these workers, who are often foreign nationals or ethnic minorities. Further, the lack of active civil society environmental groups does not provide the push back that the threats to water and air quality do in Iowa. (It should be noted that Iowa environmental groups are relative silent about the impacts of pesticides on human health, similar to the Argentinean situation.) However, the producers do feel the demand to reduce pesticides from demand for low pesticide residues that are part of the industrial convention imposed by the exporters, keenly aware of northern hemisphere ecological demands.

In Patagonia, in contrast, labor laws made it more troublesome for the totally vertically integrated transnational systems (Cavalcanti and Bendinia, 2001). With an even greater concern for quality control than in pork, technicians from the distributing transnational corporations make regular visits to each contractor, supplying the inputs, including the germ plasm (fruit trees), all inputs, and orchard management. However, just as the Iowa land owner bears legal responsibility for the environmental externalities, the Patagonia land owners bears legal responsibility for labor well-being. In both cases, smaller producers are less likely to be held accountable by weakened enforcement structures, and when they are, the transnational corporations can explain how such illegal activities are against their corporate policies.

Neo-liberal policies have successfully shrunk all levels of the state and reduced state income in both the U.S. and Argentina. Massive budget cuts to departments of labor, agriculture, and natural resources make it impossible to enforce existing laws and regulations. Nevertheless, given the highly organized nature of civil society and the visibility of transnational firms, they are more likely than family-based hog operations they contract with to face fines or law suits.

Contracting as the Accumulation Strategy: Reducing Transnational Risk

Thus the strategy for major processor-distributors, such as Smithfield, IBP, Conagra, and others has been to vertically integrate by owning the hogs, but not owning the land and buildings where they are raised. Thus contracting the raising of the hogs to independent producers frees them from environmental liability, but leaves them with control of the operation. The farm operator, who invests in and maintains the buildings, the land, and the manure distribution system, is held liable for environmental damage. Contracting, in which decisions surrounding production lie with the transnational corporation but responsibility for externalities lies with the contractor, forces more risk on the producers, who have less control over reducing them.

Contracting previously independent *chacareros* to lend their land and labor, but not their expertise, to fruit production maximizes the flexibility of the transnational firms, making it easier to move from country to country as exchange rates change. It increases the vulnerability of the fruit producers, who, despite retain land rights (although these remain precarious because of debt issues surrounding the devaluation of the peso), have not only lost income but lost decision making status within the value chain. Meanwhile, like the hog grower in Iowa, the small and medium producers retain the responsibility and liability for labor and the environment.

Conclusions

Integrating hog and fruit value chains using industrial conventions increases the control of grocery chains on setting the product characteristics desired, determining the processes necessary to produce those characteristics, and making sure that those processes are followed. While the North American pork market demands a uniformly lean, uniformly sized, and safe product, the global fruit market presents constantly changing characteristics in terms of type and qualities of fruit. In both situations, those characteristics are insured by provision of germplasm by the transnational firm.

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For hogs the germplasm is in the form of sows and boars from a very narrow genetic pool to produce shoats to be raised at a completely different place to decrease the disease inherent when animals are raised in close proximity. The disarticulation of production further removes control from farm households.

In fruit, the genetic stock for grafting on existing root stock is provided by the transnational firm, carefully monitoring and creating consumer demand in the North. Company technicians provide the management, even directing the workers that the owner of the orchard has hired.

In Iowa, some hog farms have drawn on the civic convention to maintain a more integrated and satisfying value chain. Alternatives do exist for Iowa farmers, although the market convention is no longer functional for them. In Argentina, on the other hand, the small and medium fruit producers have increased their linkages to the state in order to give them some advantage under the market convention. Increasing attention to environmental quality has led to some small and medium producers moving into ecological fruit, although without a strong organizational base. But the option of a civic convention is beginning to open for them, as it has in Brazil (Marsden et al. 1996). However, as Freidberg (2003) points out, colonial constructs remain, even in Southern countries as modern as Argentina.

Conventions theory allows us to compare two different situations of globalization in terms of both buyer and producer strategies. While the advantage is definitely with the buying end of the value chain, when producers identify consumers who want civically appropriate characteristics, the possibility of profitable and satisfying alternative

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