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The Relational Geography of Peri-urban Farmer Adaptation

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Abstract

Agricultural geographers have long focused on farm adaptation to changing conditions. One frame for examining these adaptations is the modified political economy approach, which attempts to reconcile the conceptual tension between farmers as individual agents found within broader industry structures by focusing on adjustment strategies on the farm which recognize the power farmers can exercise in response to broader economic pressures. We build on this approach by conceptualizing and visualizing the relational geography of four peri-urban farm cases in the United States based off of farm household interviews. We focus on the emergent positioning of peri-urban farmers within the structural conditions of local development pressure and global industrial agricultural markets, and the resultant ability of farmers to adapt in the future. An immediate application of this framework, given the interest in food systems, would be to better target policies and programs in peri-urban areas for the purpose of regional food system development or community-based agricultural economic development.

Keywords: farmer adaptation, agriculture, relational economic geography, peri-urban, political economy

1.0 Introduction

Several recent articles with geography roots have argued for a “new rural geography.” Among these calls has been a push to reconceptualize the meaning of rural and peri-urban spaces, and their creation, as lines are blurred between urban and rural processes (Woods, 2009; McCarthy, 2008). The interplay of rural-urban processes literally can be seen as rural land is incorporated into the urban region by non-farm actors consuming the countryside, increasing competition for land causing higher land prices, creating non-farm neighbor conflicts, and often resulting in more regulation of agriculture. And yet, these same processes can yield new and more customers for new urban-oriented types of farming and increased traffic for related farm businesses. Urban and rural processes also interplay as agriculture is more squarely situated within broader networks of global capital (Clapp, 2012). Recent scholarship outside of agricultural geography also suggests small and mid-size farm survival depends on farmers altering production relationships to utilize spaces “left

behind” by globalization or “created” through urbanization (Allen et al., 2003; Hendrickson & Heffernan, 2002; Suryanata, 2002). Combining these threads, there is value in being able to anticipate which farmers are positioned to take advantage of both global market pressures and local land market conditions and take advantage of the spaces “left behind” or “created” to shed light on the future of farming in peri-urban areas.

Agricultural geographers have long focused on farm adaptation to changing conditions (see Evans, 2009). These modified political economy approaches attempt to reconcile conceptual tension between farmers as individual agents found within broader industry structures by focusing on adjustment strategies on the farm which recognize the power farmers can exercise in response to broader economic pressures (Morris & Evans, 2004; Marsden et al., 1996; Whatmore et al., 1987). In this article, we build on the general concept of a modified political economic approach to visualize the emergent positioning of peri-urban farmers within two important contexts: that of local development pressure and global industrial agricultural markets, and the resultant ability of farmers to adapt in the future. We incorporate cultural perspectives offered through relational economic geography research (Bathelt & Glückler, 2003; Yueng, 2005). This combination of the modified political economic concept and relational economic geography allows for a conceptualization of peri-urban farm households who actively shape their environment, while their actions are also contingent upon relationships both within their growing communities and their business relationships. In the end, we hope to anticipate how farmers are able to take advantage of the space left behind or created in these two processes of which they are a part.

Next we provide a brief discussion of peri-urban agriculture in the United States. We then explain our conceptual framework. This is followed by a few brief examples from case studies of how this framework might be used to explain farmer adaptation. Finally we speculate on the usefulness of a culturally-informed framework to predict the future success of peri-urban farms.

2.0 Peri-urban Farming

Farming in the United States (US) has changed dramatically in the last few decades, becoming part of a dynamic, globalized food system. US peri-urban areas are continually incorporated into the urban region through urbanization of formerly agricultural or other undeveloped areas located beyond suburbia. This results in competition for land between farmers and non-farmers. With increased competition for land come higher land prices, more non-farm neighbor conflicts, and perhaps more regulation. Because land (a central input to farming) is geographically fixed, farmers in these areas have to contend with the realities of urbanization and the new consumers of the countryside.

Until the mid-1970s, most researchers characterized the urban-agriculture relationship as uni-dimensional: urbanization assuredly was detrimental to agriculture and this was a conflict in which urbanization always prevailed (Bryant & Johnston, 1992). Much research, however, shows that despite the double-jeopardy experienced by the peri-urban farmer (dealing with both globalization and urbanization), US peri-urban agriculture is indeed still healthy. For example, the majority of US fruit, nut and nursery and greenhouse sales occur in these areas and the majority of US peri-urban counties have stable or growing agricultural sectors (Jackson-Smith & Sharp, 2008).

Peri-urban farmers can capitalize on urbanization to cope with or avoid its negative influences (Bryant & Johnston 1992). New rural development may include local agriculture as an economic development strategy through non-productive aspects of the farm (Renting et al., 2003; van der Ploeg, 2000). For example, urbanization can bring new customers for direct markets and increased traffic for related farm businesses. In areas where land prices are especially high, farm families can “stack” complimentary businesses to vertically grow the farm instead relying on growing the farm horizontally through new land purchases (Inwood & Sharp, 2012).

Despite urban-oriented opportunities potentially available to peri-urban farmers, they still contend with the dynamics and pressures that result from being part of the industrialized food system, like all other US farmers. As more and more of the food dollar leaves the farm and moves both up- and downstream in the commodity chain, farm households, in general, compete for smaller profits. Furthermore, processes like “vertical integration” have become the norm in some areas of the industry (such as poultry). Vertical integration occurs when firms specialize in more limited aspects of production and increasingly coordinate with other firms upstream or downstream in the commodity chain so that the inputs, production, processing, marketing and sales are centrally controlled by new corporate actors (Hendrickson & Heffernan, 2002). Correspondingly, the role of farmers within the production process is considerably reduced.

Further, agricultural systems (production, marketing, management, etc.) have generally restructured and rescaled beyond local and regional levels, resulting in *globalized* industrial production. Some commodities, such as sugar, have had global markets for centuries (Friedland, 2004). But this new and more pervasive globalization of the food system has resulted in the massive international mobility of capital (and to a certain extent, labor), a change in the actors and their control of the commodity chain, and an increase in the scope, scale, and speed of movement in the system. Research has suggested that in the face of the industrialization and globalization of our food system, farmers can turn to alternative agricultural systems, which attempt to operate in ways that the global system cannot. This includes resistance to the changing scale of agriculture and localization through strategies such as shortening the commodity chain or local branding (Allen et al., 2003; Hendrickson & Heffernan, 2002; Suryanata, 2002). Examples include value-added processing on the farm and selling directly through farmers’ markets, on farm market, and local outlets such as grocery stores or restaurants. Through alternative agricultural network strategies, farmers can also reconstruct their business relationships to be more advantageous to them (Whatmore & Thorne, 1997; Winter, 2004). Examples can include cutting out “middle-men,” working with new players that are outside the global industrial system, and developing new “value-based” relationships, such as chef-grower networks. Finally farmers can engage in counter-industrial movements, like organic production or developing alternative enterprises utilizing integrated pest management systems, and producing specialty crops. The peri-urban farming landscape, then, is more complex and varied, and most ripe for adaptation to both globalizing and urbanizing conditions (Bryant & Johnston, 1992; Heimlich & Anderson, 2001).

3.0 A Relational Agricultural Geography Framework

On one hand, we have structural conditions creating an environment of pressures (from the global industrialized food system and local peri-urbanization). On the

other hand, evidence has shown family farming has not disappeared in these places and, indeed, recent scholarship both in and outside of rural geography suggests a host of strategies are available to take advantage of or adapt to these conditions. How, then, might we approach understanding the peri-urban farm landscape from a farm household perspective? Since the 1980s, agricultural geographers have developed scholarship around a *modified* political economic approach (see Morris & Evans, 2004), essentially recognizing that farmers have agency, or the ability to affect their engagement with the broader political economic realities of farming. In this article, we use a relational economic geography approach to build on the modified political economic concept that frames both the urban and rural, agricultural and non-agricultural processes in a way that recognizes farm households as embedded within these broader structures, and yet nevertheless possessing the ability to shape their environments. If we considered each of these processes in isolation, we run the risk of essentializing people and places as sets of merely internal relations rather than as complex products of interactive difference as a result of these processes (Lee, 2002).

The framework we suggest borrows from economic geography and the work that has taken place since the “relational turn” in the 1980s (or the period in which social relations of economic agents gained sustained attention from economic geographers) (Boggs & Rantisi, 2003). We employ analytical tools for examining and explaining the spatial structure of relational economic processes. What do we mean by relational? Relational does not just mean focusing on relationships. A relational unit of analysis incorporates the economic actors (in our case farm households) as well as processes of development and transformation (in our case urbanization and globalized industrialization) produced by their relations (Boggs & Rantisi, 2003). The positional space of the farm household is reconceptualized as a perspective for examining social relations, instead of space being the end-object of an analysis (Bathelt & Glückler, 2003). “Relational geographies” are thus the spatial configurations of heterogeneous power interactions between the farm household and broader processes (Yeung, 2005) and a relational framework would enable examination of these geographies over time. Social interactions, interconnections, tensions and power differentials between economic agents have shaped the geography of economic performance (Boggs & Rantisi, 2003). This approach, then, holds promise in an attempt to theorize that particular kinds of power relations between farm households and their peri-urban community, and farm households and their commodity chain can translate into farm households successfully managing multi-scale pressures endemic to farming in peri-urban regions. In essence, by framing peri-urban farm households’ ability to manage multi-scale pressures in a relational sense, they become active participants in developing the geography of their business.

Finally, a relational economic geography approach allows for a more informed structure/agency, or local farmer/global agri-food system or rural farmer/urbanization debate. If we only focus on political economy aspects peri-urban areas, only the differences between economies (e.g., governance, actors, or labor market) are emphasized, not the actor-oriented dynamic processes that result in the current landscape. Relational economic geography does not privilege the farmer, but recognizes the variability of the farm’s geography as mutually constituted, representing difference and inequality between farms. The political economy is not a given, but a dynamic contextuality within which farm households have a position – giving us a *modified* political economic approach. A relational

approach examines the dynamics that created the current power geometries and how these relational processes set the stage for future relations and emergent properties – or in our case, which farms may or may not engage in strategies to manage and/or capitalize on the vertical and horizontal pressures of urbanization in a global industrialized food system.

4.0 Relational Economic Geography Framework for Peri-urban Agriculture

To situate the farm household within an exurban community and the global agri-food system, we build a framework comprising three interrelated components. The result of these relations is the position of the farm household. The main components of the framework are the three rings shown in Figure 1. First, the *farm household* is the decision-making unit made up of family owners and employees who have farm and household goals and philosophies and are subject to the farm household life cycle. In this article, “farm household” is referring to both the household and the farm business (Smithers & Johnson, 2004). The farm household lifecycle refers to stages of the family farm business development such as business initiation, growth decline and perhaps, reproduction (Bennett, 1982). This cycle is related to periods of expansion and contraction in the business to deal with the cycle of family members existing and entering the farm business (Potter & Loble, 1996). The concept of farm household lifecycle allows us to bring household processes and needs into an examination of the farm business (Gasson & Errington, 1993). Second, *community* refers to the conditions in the peri-urban environment, such as land use policies, urban development pressure, political support, social infrastructure, land markets, neighbors, historic economic conditions, and agricultural infrastructure. Finally, *commodity chain* conditions in the particular agricultural economic conditions of the farmer’s commodity chain, such as the central actors in the commodity chain, commodity markets, and the state and national regulations and policy for those commodities. While scholarship exists on varied terms to use other than “commodity chain” (Jackson et al., 2006), we choose to use this term because it is widely recognized. The community and the commodity chain, outside of the farm household, are arguably the two most important factors when considering the processes to which peri-urban farmers would need to adapt. It is important to note that we do not privilege any one of the components of the framework, and therefore none is at the center.

The three framework components are positioned by three concepts: *contextuality*, *path dependence* and *farm household agency or ability to adapt to changing conditions*. Contextuality is represented by the farm household’s engagement with the community and their own commodity chain and hence the global agri-food system and the engagement between the community and the commodity chain. The level of tension, cooperation and integration of the between the farm household relations, the community and commodity chain forms the degree to which the rings of these components overlap— the greater the tension and/or lack of integration between the three components, the less overlap between the rings, and the more cooperation and integration of the three components, the greater the overlap. The amount of overlap determines the level of ability for the farm household to adapt to changing conditions. In Figure 1, farm household agency, or the ability to adapt is represented by the shaded area in the middle of the three components, or rings.

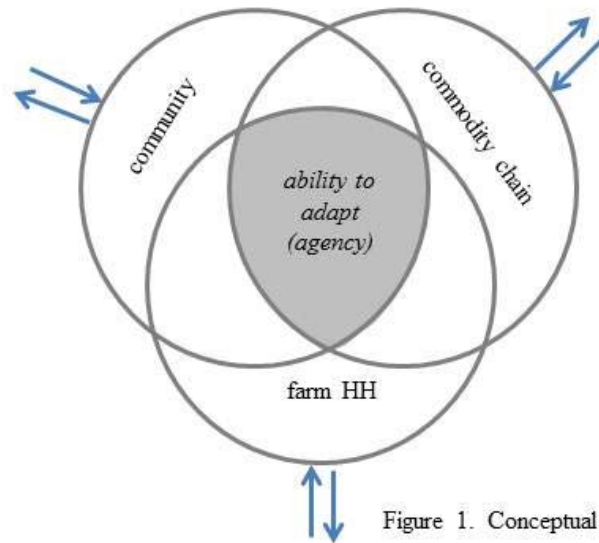


Figure 1. Conceptual framework

Farm households are contextualized by their relationships in time and space. Each farm household will have its own set of relationships with the commodity chain regarding inputs and outputs that may extend across varying spaces and scales. Moreover, because each farm household is comprised of its own goals and motivations, farming philosophy and at differing places in the farm household lifecycle, power relationships between commodity chain actors will vary by farm. This concept is represented by the degree to which the commodity chain ring overlaps the farm household in the chain, and will likely affect the ability to adapt in certain ways. In addition, the commodity chain actors may or may not have embeddedness within the community. This will affect the amount of overlap between the community and commodity chain. For example, distant, arms-length commodity chain relationships, let us say for a conventional poultry operation contracted with a global firm that has no other local ties may result in little overlap between the commodity chain, the community and the farm market. However, a dairy farm with a value-added cheese operation selling through a local co-op will have more overlap between the farm household and commodity chain.

The third form that contextuality takes are the relations between the farmer and the community. Massey (1984) explains how contemporary economic restructuring is shaped by the accumulated sediment of regional and local history, and presumably the position of the actor in this sediment. The extent to which the farm household is embedded and supported by the community determines the degree of overlap between these two spheres. Further, the extent to which the community supports the particular type of production of the farm household and that the particular type of production fits within community norms, the greater the space of agency provided to the farm household. In addition, the extent the commodity chain is integrated locally affects the overlap between those two spheres, and therefore, the space of adaptation for farm households.

To understand better farm structural change over time, it is important to be aware of how previous positioning of the farm household within its context mediates the future actions of the farm household. This time-dependent thinking is reflected in several research articles detailing farmer adaptations by examining past adaptations

and their relationship with future adaptations (Evans, 2009; Potter & Lobley, 1996; Shucksmith & Hermann, 2002). When looking at Figure 1, path dependency can be thought of as how the position of the rings in the past constrains or provides opportunities for the future. A farm household with little ability to adapt in the past may continue to have limited ability to make adjustments in the future or vice versa. The concept of path dependence was initiated by economists, emphasizing the role of previous economic decision, rather than current conditions in the trajectory of a business (Gartland, 2005). This concept has been typically applied to studies of technical change, recognizing that commitments to a particular technology path can cause a firm to be “locked-in,” which may explain the persistence of inefficiencies (Arthur, 1989; Nelson, 1995). Combining the general concept of path dependence with Massey’s view that space/time are coupled processes, we end up with an open system where notions of time and space are capitalized and allowed to be mutually constituted. This open system does not allow *any* result, but change or adaptation can occur because at least a “few things must be given at once” (Massey, 1999, p. 274). Path dependency merely results in these types of multiplicity. So as an open system, differences can occur, but these are not divorced from previous space/time forms. Space and time are not the causes of anything, but the result of the interaction of these relationships between the farm household and the community and commodity chain and the corresponding ability of that farm family to adapt to changing conditions.

The current positioning of the farm household, therefore, is the resultant state of relationships between the farm household, community and commodity chain. The ability of the farm household to adapt to changing conditions is the ability of the farm household to adjust these relationships. Therefore, Figure 1 suggests that the greater the space of agency (in the center) the greater ability the farm household has to adapt to changing conditions. Actors in the community or commodity chain can attempt to separate their rings from one another or they may decide to cooperate to create relationships that afford greater agency to the farmer. This is a constant tension and negotiation between the community, actors in the commodity chain and the farm household.

5.0 Applying the Concept — Case Examples

What might this framework look like in practice? Using data collected for a larger research effort entitled, “Agricultural Adaptation at the Rural-Urban Interface: Can Communities Make a Difference?” we apply this framework to four examples derived from 34 farmer interviews. This larger research effort was funded by the USDA NRI Rural Development Project Grant #2005-35401-15272. For more on the study and methodology, see Clark (2009).

First we selected eight counties in six study areas across the United States. Each county is considered peri-urban (meaning that they are near a major urban area) and experiencing population growth higher than the national average, but still have a vibrant agricultural sector by being in the top quartile of sales in the nation (but in different states of health-declining farms and sales, stable farms and sales and growing farms and sales). Finally, each of the study areas is in a distinct region of the country - Northeast, South, West and Midwest. The case study counties included: Frederick County, Maryland (dairy and vegetables); Yamhill County, Oregon (greenhouses, grapes, vegetables); Cache County, Utah (cattle, dairy); Kent County,

Michigan; Forsythe and Hall Counties in Georgia (poultry); and Spencer and Shelby Counties in Kentucky (cattle and tobacco).

Within each study site, we began by interviewing key informants to the larger project. A purposive snowball sampling methodology (Lofland & Lofland, 1995) was used to identify leaders and central community members that had some relation to agriculture, land use planning, decision-making and governance, media, environment, civil society, business and economy. It is through these 149 key informant interviews, that we employed a second purpose snowball technique to identify the farm interviewees that represented varying types of production and farm household make-up. Using an open-ended interview guide, we asked questions about perceptions of the pressures or opportunities resulting from urbanization, trends in local agriculture, and background about governance and community organizational structure. In addition, specific questions were asked about the farm household and its lifecycle, and decision-making, including goals and motivations.

Of all interviews, four cases were selected to illustrate how this framework can be applied. Table 1 summarizes the four cases (Farms A-D) in written form and Figure 2 illustrates the four cases visually. As shown in Figure 2, Farm A illustrates a diversified farm near Portland, Oregon. This farm household engages in some traditional commodity production, which in their region is grass seed production (an historical commodity in the area), and a CSA (community supported agriculture in which community members hold share in the farm and can volunteer on the farm to reduce their costs), among other ventures. They said they do what they need to make ends meet, to plan for the future for their son who will take over the farm, and to satisfy their own desire for the organic CSA, which represents their need to connect with the earth and connect with the community. In addition to personal motivation, the farming couple is able to be flexible and change production strategies as needed because their community has a supportive agricultural infrastructure and services, and the community supports their CSA through membership. Just as critical to their success, the local community is fully supportive of the state's stringent land use laws which ensure that while they live in a fast growing community, their land is protected for agriculture use. As shown in Figure 2, Farm A suggests, this farm household is the most poised of the four cases to adapt to production in peri-urban spaces.

Figure2: Framework Case Examples.

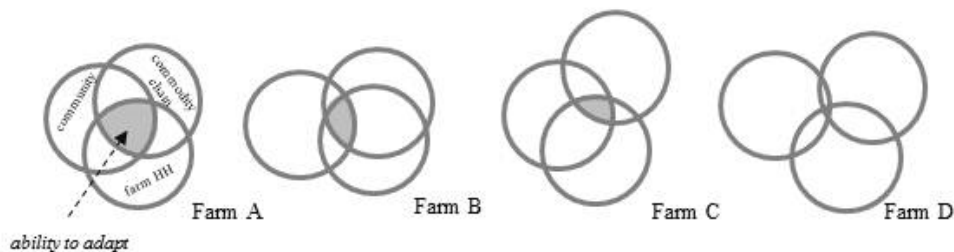


Figure 2. Framework Case Examples

Table 1. Framework Case Examples

Farm	Farm Household ← → Community	Farm Household ← → Commodity Chain	Commodity Chain ← → Community	Relations over Time	Resulting Adaptive Capacity
A. Diversified farmer, Portland, OR	Newer farm family, neighbors in CSA, family uses many community services	Traditional commodity production (grass seed), CSA, other	Community has permanently protected the farm from development	Changes market relations to keep farm going, wants to pass on farm to children	High
B. Christmas tree growers, Atlanta, GA	New farm family does not feel supported by local leaders, however, urban neighbors patronize farm	Direct to consumer; diversified production to fit growing family needs	Legislated out traditional production by 2020, in addition, local leaders skeptical if operation qualifies as a "farm"	Changes market relations to keep farm going, wants to pass on farm to children, local non-farm growth creating new markets	Mid/High
C. Vegetable grower, Portland, OR	Long-time farm family, held leadership position in land use planning	Contracts with international vegetable processing/packing firm	Community has permanently protected the farm from development	Vegetable processing/packing firm has demanded changes in products grown	Low/Mid
D. Poultry farmer, Atlanta, GA	Long-time farm family, does not feel supported by community or local leaders, experiencing negative effects of development pressure	Traditional commodity production; Contacts with international poultry firm	Legislated out traditional production by 2020	International poultry firm has shifted more and more risk to grower, local non-farm growth reducing viability of farm	Low

In Figure 2, Farm B represents a public-focused Christmas tree farm that has several value-added businesses on the farm. This farm is located in a very fast growing community near Atlanta, Georgia. As a result, the land market is extraordinarily tight, preventing the family from expanding horizontally, hence the on-farm value-added businesses that enable multiple generations on the farm. The principal operators of the farm wanted to quit their daytime jobs and focus solely on farming. Further, as their children were getting older, they wanted to be able to have multiple streams of income to support the growing number of operators. Their farm once was a poultry farm (the main commodity in this region), but because of the increasingly powerful international poultry firm that was dictating much of the end market for poultry farmers in the area, this family found it more and more difficult to make enough profit. The family did years of research and planning and finally found a type of enterprise that would provide a livelihood for multiple operators, allow for more flexibility in end markets, and played off the population boom in their area. The trick was that this community deliberately eliminated agricultural production from allowed land uses and any future comprehensive plans. So the family had to

spend time “educating” local leaders about agritainment and Christmas tree farms. It was not easy, but eventually they were able to gain permission to move forward with their business. However, if they want to make any changes to their business, getting the go-ahead from local leaders to make changes would likely be another uphill battle. This farm household is happy to have made the change from a the poultry sector, which was squeezing them out, to a Christmas tree and agritainment venue because of the freedom they have gained in their economic relationships for their business. They are generally optimistic about the future of their farm. However, they are unsure if they would be able to make any major changes to the type of operation they have because current local leadership does not support agriculture as a use in the area.

In the same community as Farm A, a vegetable grower operates a long-time family business (shown in Figure 2, Farm C). He has been in business long enough to have participated decades ago when the state developed its stringent land use policies and his local community decided how to implement them. He is proud to have been part of the process and still participates in local policy discussions. He feels supported by his neighbors and local leaders alike. Vegetable production, like grass seed production, is a long-time major commodity in this region. But unlike grass seed production, almost all mid- to large-scale vegetable producers are under contracts with an international firm that packs, processes and markets vegetables. This farmer said since the vegetable market consolidated and contracts started, his life is like “serfdom.” He is like many farm families we interviewed who insist on hanging on to an operation that produces the area’s traditional agricultural commodities, and insist on hanging on to the same relationships over time. In many ways, even though he knows that from a land use perspective farming is a very viable activity in the community, he knows his current production strategies are not economically viable in the long-run. And yet he has been unwilling or unable to make changes up to this point. This is in part because vegetable production is all he has known, and he has no heirs to pass the farm on to. As a result, he has a reduced ability to adapt his operation and this is reflected in the reduced overlap between him and his commodity chain.

Finally, Farm D illustrates a poultry farm (the main commodity in this region) in the same community near Atlanta, Georgia as the Christmas tree farm (Farm B). This elderly farmer has lived in this community his whole life. He has been a poultry farmer for decades and started a small truck farm on the side. A “truck farm” is larger than a market garden and sells produce directly in to urban markets. He is getting too old to do the truck farm since vegetables are much more labor intensive. He has no other streams of income. He, like the vegetable grower near Portland, feels like he is “stuck,” but for very different reasons. Like the vegetable grower he is in a contract position with a major international, vertically-integrated firm. However, this grower has even less control over production. This international firm relies on “growers” to do very basic tasks, such as providing water for the birds and airing out the poultry houses. The firm takes care of everything else: the feed and feeding schedule, the antibiotics, the transport of chicks to the farm, the chicken growth targets and removal of full grown chickens from the farm. Each week an integrator stops by the farm to check in. And like the vegetable grower, this poultry farmer lacks a successor. But neither the contract farming nor lack of a successor completes the story of why this farmer feels he cannot change his production strategies or commodity chain relationships. As we mentioned before, this community has legislated farming out by 2020 and further restricted any expansion

of current poultry businesses. Further, this community does not want poultry production, in particular, to be an allowed land use, especially in the fastest growing areas, which is where this farmer has his poultry houses. Local zoning ordinances do not allow this farmer to update or upgrade existing poultry houses or to build new poultry houses. At this point he is unable to invest in his current operation or make investments to change operations. Plus, poultry production is all he knows. In this case, this farmer truly has the least ability to adapt, with very little overlap between the community and the community chain, the community and the farm household and the farm household and the commodity chain.

6.0 Conclusions

Recently, rural geography has suffered somewhat of an identity crisis (Woods, 2009). Reflected in this crisis is the lessening importance of agriculture in geography scholarship, the undervaluing of rural actors in the development of peri-urban geography, and the need to develop current methods of rural geography academic inquiry. To an extent, we intended this article to offer a new perspective on the geography of peri-urban agriculture. We designed a method that allows for a socially-constructed and process-oriented geography that recognizes past configurations of farm household conditions and relationships, while providing the farm household capacity to change these conditions and relationships. By reconciling farmer agency and two sets of driving forces experienced by peri-urban farms—urbanization and globalization of the agri-food system—we can have a broader understanding of how peri-urban geography is always in a state of becoming and an understanding of the importance of certain differences between firms.

Using the relational economic geography framework to explore peri-urban farm business dynamics has several important advantages. It helps us address structure (“external” conditions) versus agency (ability to make changes on the farm). We include both structural components (the farm business/farm household, community and commodity chain), relational connections between these components, and the influence of time on these relations. First, the geography of agriculture and agricultural change is understood in terms of co-construction of this geography between diverse households and the broader economy. Therefore, relational geography framework is a step toward reconciling the global agri-food system and the political economic relationships within which the farm is positioned. Finally, in a peri-urban setting this includes the associated competition for use by farm and non-farm actors. The current peri-urban agricultural geography in a given setting thus reflects farm household decision-making, the positionality of the farm within the agri-food system, and the challenges and opportunities provided within the city region. This framework does not prioritize any one component or relationship, or view these factors in isolation.

An immediate application of this framework, given the interest in food systems, would be to better target policies and programs in peri-urban areas for the purpose of regional food system development or community-based agricultural economic development. For example, work done by Allen et al. (2003) suggests that organizational leaders consider local entrepreneurial initiatives to be the most popular solution to problems in our current food system. This includes alternative economic models such as farmer-to-consumer direct models, neighborhood production and direct marketing. The framework here demonstrates how a farm’s context can be internalized by the firm over time to co-construct the boundaries for

what are possible adaptations for a farm experiencing pressures emanating from place and/or from different scales. This framework could prove useful in identifying likely farmer participants and understanding farm-level barriers to participate in these models.

This article represents an initial formulation of this framework. Ideally we would use both qualitative and quantitative methods to examine empirically the usefulness of the framework. This framework is also actor-focused. The greater challenge is to consider how this framework informs landscape-scale analysis of peri-urban geography. To a certain extent, one could argue that a critical realist approach would understand the macro-landscape as the sum of individual micro geographies. Nevertheless, we have not yet attempted explicitly to scale up from household-level insights to the larger regional context. Another limitation of what we presented is evident and quite a difference scale – the farm household. We do not “unpack” the farm household. The farm household is a complex unit with highly diverse (and sometimes conflicting) strategies to cope and adapt with change. Household members’ individual circumstances, values and attitudes play a role in the way in which farm households engage in this change (Shucksmith & Herrmann, 2002).

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