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A Front Porch for Critical Agrifood Studies: Engagement Across "Food Systems"

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Michael CAROLAN,[1] James HALE,[1] Hilde BJØRKHAUG,[2] Angga DWIARTAMA,[3] Maki HATANAKA,[4] Midori HIRAGA,[5] Katharine LEGUN,[6] Allison LOCONTO,[7] and Steven WOLF[8]

Abstract

In this editorial, the outgoing Executive Committee of the Research Committee on the Sociology of Agriculture and Food of the International Sociological Association (RC40) reflects on a high-level, unifying characteristic that animates the intellectual puzzles and socio-ecological challenges that constitute critical agrifood scholarship. The reflection is introduced as a means to characterise the field, almost 40 years after its first plantlings began to sprout in the fields of agricultural economics, rural sociology, human geography and environmental studies. At the same time, this editorial is a means to (re)introduce RC40 to readers. RC40 is a dynamic, international, welcoming network of agrifood scholars. The heart of RC40's dynamism is found in its journal: the International Journal of the Sociology of Agriculture and food (IJSAF). These platforms offer the type of inclusive spaces needed to drive intellectual exchange, while expanding critically oriented communities of practice in the pursuit of equitable, sustainable, transformative change within parts of and across different sites in the food system.

[1] Colorado State University, USA
[2] Norweigian University of Science and Technology, Norway
[3] Institut Teknologi Bandung (ITB), Indonesia
[4] Sam Houston State University, USA
[5] Kyoto University, Japan
[6] Wageningen University, Netherlands
[7] National Research Institute for agriculture, food and environment (INRAE), UMR LISIS, Gustave Eiffel University, France
[8] Cornell University, USA
Corresponding author: Michael Carolan, Michael.Carolan@ColoState.EDU

Bibliographical notes

Michael Carolan is Professor of Sociology and Co-Executive Director/Co-Founder of the Food Systems Institue for Research, Engagement and Learning at Colorado State University. He is a member of the RC40 Executive Committee.

James Hale is a Research Scientist in the Department of Sociology at Colorado State University.

Hilde Bjørkhaug is Professor of Sociology in the Department of Sociology and Political Science at the Norwegian Uniersity of Science and Technology (NTNU). She is the Secretary/Treasurer of RC40.

Angga Dwiartama is an Associate Professor at the School of Life Sciences and Technology, Institut Teknologi Bandung (ITB). He is a member of the RC40 Executive Committee.

Maki Hatanaka is a Professor in the Department of Sociology at Sam Houston State University. She is the former Secretary/Treasurer of RC40 and a current member of the Executive Committee.

Midori Hiraga is an Associate Professor in the Faculty of Economics at Kyoto Tachibana University. She is a member of the RC40 Executive Committee.

Katharine Legun is an Assistant Professor in Strategic Communication at Wageningen University. She is a member of the RC40 Executive Committee.

Allison Loconto is a Research Professor at the French National Research Institute for Agriculture, Food and Environment and Co-Director of the Interdisciplinary Laboratory for Science, Innovation and Society (LISIS) at Gustave Eiffel University. She is the former President of RC40 and a current member of the Executive Committee.

Steven Wolf is an Associate Professor in Natural Resources and the Environment at Cornell University. He is the President of RC40.

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Introduction

With this editorial, we reflect on a high-level, unifying characteristic that animates the intellectual puzzles and socio-ecological challenges that constitute critical agrifood scholarship. We introduce this reflection as a means to characterize the field, almost 40 years after its first plantlings began to sprout in the fields of agricultural economics, rural sociology, human geography and environmental studies. At the same time, we want to remind readers about, or in some cases introduce them to, RC40 (https://www.isa-agrifood.com/). RC40 is a dynamic, international, welcoming network of agrifood scholars. The heart of RC40's dynamism is found in its journal: the International Journal of the Sociology of Agriculture and food (IJSAF). These platforms offer the type of inclusive spaces needed to drive intellectual exchange, while expanding critically oriented communities of practice in the pursuit of equitable, sustainable, transformative change within parts of and across different sites in the food system.

With a field as theoretically, methodologically, and disciplinarily diverse as critical agrifood studies, we can imagine any number of ways to conduct a systematic review to identify key and emerging topics of interrogation. However, many of those options come with their own hurdles due to the sheer scope of the field, resulting in a traditional systematic literature review that affords an analysis focused exclusively on the trees at the expense of the forest. To alleviate this concern, we employ a bibliographic analysis, which is a means to visually represent multiple fields of scholarship (and their points of exchange) simultaneously in ways that are difficult to accomplish using text or numbers. This method uses software-aided text analysis and novel data visualization techniques to reveal patterns and relationships that can get lost in the noise generated by large-scale traditional literature reviews. Bibliographic analyses can trace relationships among academic publications and determine, for instance, the structure, scope, and reach of field and subfields (Fan et al. 2021). For this analysis, we interrogate how the term "food system" has been used by the various fields represented in publications captured in the Clavariate Web of Science database.

Our purpose here is to leverage a mapping of literature that uses the term "food system" as a keyword to reflect on the field of agrifood studies. As with all such enterprises, we must begin with a caveat. We are neither conflating "food systems" and "agrifood studies" nor suggesting that one must be subsumed within the other. Rather, we encourage reflection on convergence and divergence across concepts. In the last 30 years, crudely stated, agrifood studies shifted from a focus mostly on agricultural production to a focus on agrifood consumption. In the context of the USA (and perhaps further afield) the "consumption turn" grew directly from a shift in the intellectual center of agrarian studies from the Midwest (e.g., Buttel, Busch, Heffernan, Lacy, Kloppenburg, Sax, Solomon, Flora, Bonanno) to the West Coast (Goodman, Watts, and Friedland [an émigré from the East Coast]). Allaire and Boyer's (1995) analysis of post-Fordism applied to agrifood – The Second Great Transformation – highlights parallel intellectual currents in Europe at the same time. Their updated reflection on what they refer to as "regulation theory" demonstrates a similar trend to the North America shift in theoretical and empirical concerns (Allaire and Daviron, 2018). Reflecting on historical development of our field and the analysis below, we challenge readers to contemplate where future "turns" might lie and to pursue research agendas (and collaborations) that anticipate and respond to changes in intellectual foci.

Methods

The lead author (Michael Carolan) and second author (James Hale) established the parameters for conducting the bibliographic analysis based on best practices listed elsewhere (e.g., van Eck and Waltman 2021). Those steps were as follows: (1) conducting a search of "food system" from Web of Science (WOS) based on identified keywords; (2) limiting parameters to after 2001; (3) and searching among articles, book chapters, early access, and books. This generated a list of 12,123 publications. Hale ran the analysis through the bibliographic software. Hale then grouped the publications by WOS categories. The top twenty recurring categories, based on the outcome of our search, are listed below (note: some publications span multiple WOS categories, which explains by the below numbers add up to more than 12,123):

1. food and science technology (n=3209)
2. ag. multidisciplinary (n=1876)
3. green sustainable science technology (n=1411)
4. environmental sciences (n=1381), environmental studies (n=1117), ecology (n=280)
5. geography (563), sociology (475), regional urban planning (417), development studies (275), history philosophy of science (267)
6. agronomy (881)
7. nutrition dietetics (867)
8. agricultural economics policy (742) and economics (580)
9. applied chemistry (578)
10. public environmental occupational health (572)
11. biotech applied microbiology (250)
12. multidisciplinary science (267)

The bibliographic software (VOS) further organizes these groupings into four meta-categories: social sciences, biological sciences, management, conservation and ecological sciences, and health sciences.

Figure 1 : Keyword network for "food system"

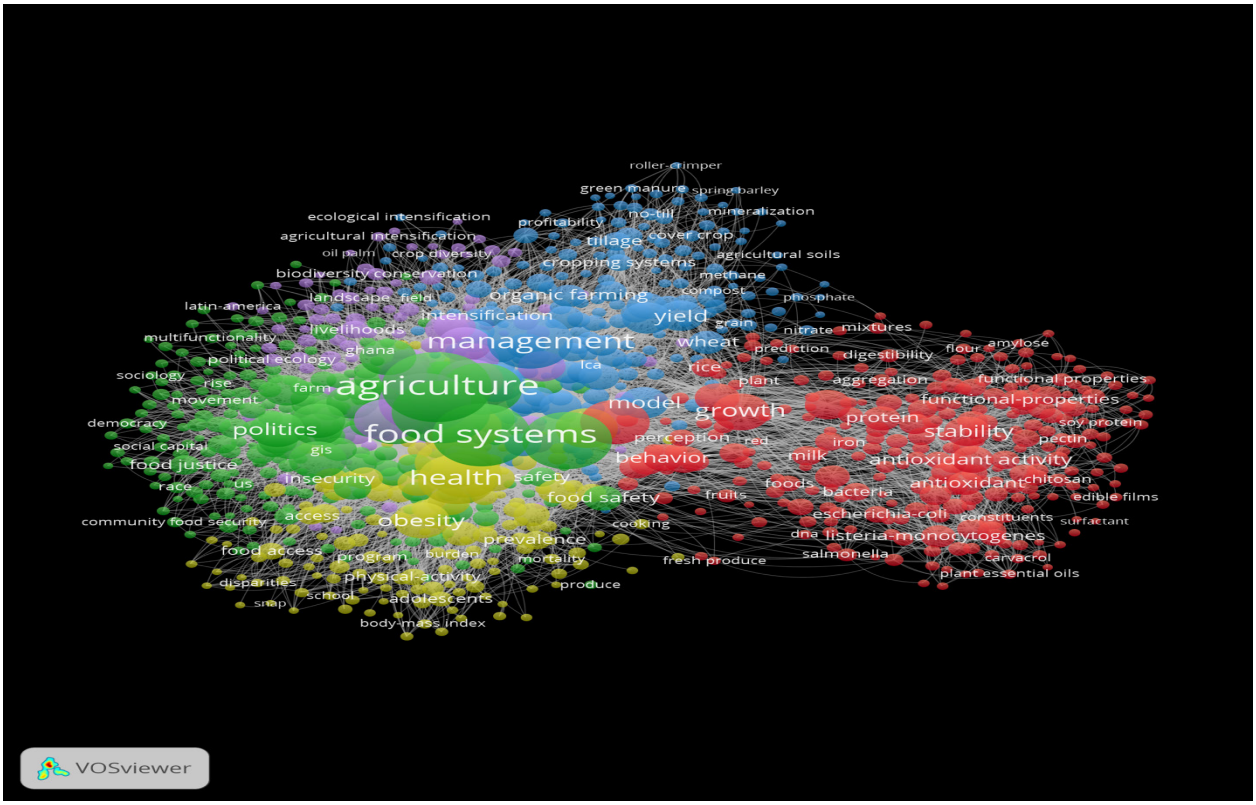

Figure 1 highlights keywords that were listed alongside "food system" across and within those four meta-categories (keywords were captured and counted by the software and not predetermined by the authors).

Following van Eck and Waltman (2021), the nodes furthest to the right represent publications in the biological sciences; the top, from management, conservation and ecological sciences; the left, from social sciences; and the bottom, from health sciences. Items refert to 'the objects of interest', which in this case are food system-related keywords. Links represent "a connection or a relation between two items" e.g., bibliographic coupling/co-occurrences between keyworks, publications, journals. The weight indicates the importance of the item—"items with a higher weight are shown more prominently than items with a lower weight". Relatedness means that items connected by lines are more related than items lacking a line. Finally, distance

describes the strength of that relatedness. The closer items are to each other, when connected by a line, the stronger their relatedness.

Discussion

Several things become clear from this analysis. To begin, the term "food system" is polysemous, which is to say, it has multiple meanings. This is something we expected to find, based on anecdotal observations. In addition to showing its definitional mutability, the analysis also allows us to create groupings based on how the term is put to work. This allows for the visualization of its use within and across the social sciences, health sciences, biological sciences, etc.

Lessons are gleaned from this analysis by approaching the term as a boundary object (Star 2010); a device that allows otherwise disparate intellectual networks and communities of practice to cohere. Susan Leigh Star (1989, p. 37) defined "boundary objects" as "objects that are plastic enough to be adaptable across multiple viewpoints, yet maintain continuity of identity." Boundary objects facilitate collaboration and interaction between diverse actors even though they may hold different understandings of what the boundary object is and ought to be due to having different goals. This concept is often used to explain interpretative flexibility of an object or phenomenon across heterogeneous networks (e.g., Betzold et al. 2018; Konefal and Hatanaka 2011; Søraa and Vik 2021). Star (2010, p. 601) later re-visited the concept to amplify, and analytically clarify, the following characteristics: "(1) interpretive flexibility, (2) the structure of informatic and work process needs and arrangements, and, finally, (3) the dynamic between loosely structured and more tailored uses of the objects." She did this to make sure the concept was not reduced to only the first characteristic: interpretative flexibility—a move, too, that foregrounds "agency" (e.g., definitional fluidity) and while backgrounding structure (e.g., definitions need to be socially embedded). The bibliographic analysis also allows us to describe critical agrifood studies as field built on its ability to moderate engagements that result in the explicit co-mingling of facts and values.

Starting with a higher-level observation, "food system" as a concept is put to work in very different ways across disciplines and fields. We can see this in its links to such concepts as "protein" and "antioxidant" in biological sciences and "food sovereignty" and "justice" in social sciences. This observation leads us to suggest that the concept of "food system" has practical value as an interface across disparate fields and literature in keeping with the logic of a boundary object. The figure thus lends support to the thesis that the term "food system" connects otherwise disparate fields, as evidenced by the highly networked web generated by the bibliographic software. The image also shows what could be called interpretative nesting. "Food system," in other words, co-occurs with other terms that are equally interpretatively flexible—like "growth," "management," "food," "health," and "sustainability." Together, these terms help to build research networks.

Ten years ago, Carolan (2013) wrote about the "wild side of agri-food studies," a piece that speaks to the conceptual, analytic, definitional, and methodological heterogeneity of the field. This "big tent" is generative and intellectually exciting, but there are also pitfalls and constraints. For example, certain fields of scholarship command greater financial resources and visibility.

Critical agrifood studies offers opportunities for helping to make this heterogeneity work in a way that is ultimately productive by embracing the significance of values and culture, which includes the values and socio-cultural standpoint of researchers. Critical agrifood studies not only shines a spotlight on the opportunities for, and barriers to, (agri)food systems change (see e.g., Friedland, Ransom and Wolf (2010) for an invitation to readers to reflect on this argument more deeply). The field also unpacks how certain forms of knowledge may be legitimized, or not. Yet, perhaps even more importantly, we can use these same tools to unpack and contextualize all knowledge claims, which can be incredibly productive from the standpoint of fostering more inclusive types of research collaborations.

This is one way research (and bibliographic) networks as diverse as those displayed in the figure are maintained, by interrogating not only subjects related to food production and consumption by also by interrogating subjects related to knowledge production and consumption. To talk about knowledge is also to talk about power, which is another important, though sometimes under recognized, component of the boundary object concept. Once the social embeddedness of knowing is foreground, it becomes impossible to talk about what knowledge without also asking about whose knowledge (Harding 1991).

In this volume of IJSAF, we have five articles of original research that demonstrate the range of topics and theoretical entry points found in critical agrifood studies. The articles range from discussing food insecurity among migrant workers in the US (Soper 2022) to African swine fever in Vietnam (Kingsbury et al. 2022), farm abandonment in Costa Rica (Rodriguez-Lizano, Montero-Vega, Sibelet 2022), industrial meat production in the US (Chiles and Lougheed 2022), and solidarity across the international Slow Food movement (Shawki and Hunter 2022). As is typical of articles in IJSAF, these papers look to both produce and critique knowledge, they offer 'productive critiques'. These studies and this mode of scholarship also foregrounds lived experience.

Clearly, a focus on food systems has enriched the field of agrifood studies (and built bridges to new communities of scholarship). This brief editorial is an opportunity to reflect on what concepts outside of food systems remain central to agrifood studies. Some of these concepts are precisely where we can add value—e.g., political economy, rural community, globalisation, public policy, and contestation.

These musings bring us to the front-porch metaphor that is referred to in the title of this editorial. RC40, and its journal IJSAF, represent fruitful, visible spaces for gathering. Such exchanges might be for purposes of becoming socialised into broader critical agrifood studies communities of practice, though "socialised" is perhaps too strong a word given the field's "wild side" (Carolan 2013). Also, such exchanges are opportunities to branch out and engage outside of agrifood studies. Lest we forget, front porches are great places to strengthen existing relations and also to connect with people and communities beyond one's field of scholarship. Today's socio-ecological challenges highlight the value of collaboration within fields and in connecting with others that identify with different disciplinary 'homes'.

IJSAF and RC40 welcome you. Join us on our front porch.[1]

[1] RC40 is the Sociology of Agriculture and Food Research Committee of the International Sociological Association. To join ISA and RC40 go to https://www.isa-sociology.org/en/membership/individual-membership. If you are not in a position to commit to these memberships, we welcome you as an RC40 affiliate. Sign up through the RC40 website – https://www.isa-agrifood.com/, and this will ensure you receive periodic updates about our programming and opportunities for engagement.

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Comparative Food Insecurities: Farmworker Perception of How the Quality and Quantity of Food Changes with Migration

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Rachel SOPER[1]

Abstract

Studies have found that farmworkers in U.S. agriculture report high rates of food insecurity. Yet scholars also point to hunger as the reason behind why farmworkers left their homes to come to the U.S. Thus, a binational comparison of food insecurity is needed. This study examines access to food prior to and after migration to California. Interviews with 40 farmworker households reveal that while respondents experienced more hunger in their home communities than they do in the U.S., the quality of food has decreased with migration. Respondents brought up the high quality of fresh, flavourful, organic food they grew themselves through natural methods. When the harvest ran out, without money to buy food, they experienced severe hunger. Some contrasted that to the abundance of food post-migration, and others discussed seasonal hunger during months when there is less work, yet all pointed to the low quality of food they have access to at U.S. grocery stores. With migration, respondents lost access to pesticide-free food. Rates of farmworker food insecurity miss the fact that even those who are considered food secure are not eating the quality of food they desire. A comparative perspective reveals the transformation of insecurity from insufficient amounts of fresh and natural food to increased consumption of food laden with chemicals. In neither context do the workers who harvest food for others have enough access to what they wish to be eating.

[1] California State University, Channel Islands, USA
Corresponding author: Rachel Soper, rachel.soper@csuci.edu

Bibliographical notes

Rachel Soper is an Assistant Professor of Sociology at California State University, Channel Islands. Her work on indigenous farmers and farmworkers is published in Agriculture and Human Values, Rural Sociology, Journal of Peasant Studies, Current Perspectives in Social Theory, and Latin American and Caribbean Ethnic Studies. Her work on urban food justice is published in the Journal of Agriculture, Food Systems, and Community Development.

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Introduction

Farmworker food insecurity is an important topic to explore because of the irony associated with the fact that the people who labour in the fields to pick the produce that feeds others, are themselves often suffering from the absence of sufficient food. While farmworkers are often examined by scholars as *producers* in the food system, they are also *consumers*. Without wishing to "deemphasize the importance of focusing on the embodied forms of structural vulnerability migrants endure as producers in the industrial food system", it is also imperative to balance that literature by examining their experiences "at the other end of this spectrum" (Carney, 2015: 12) in the realm of eating.

Existing scholarship points to high rates of food insecurity among farmworkers in the U.S (Weigel et al., 2007; Wirth, Strochlic, and Getz, 2007; Kresge and Eastman, 2010; Castañeda et al., 2019). It also points to lack of access to nutritious and culturally appropriate food because of economic and political marginalization (Borre, Ertle, and Graff, 2010; Minkoff-Zern, 2014a; Mares, 2019). In addition, scholars note that many farmworkers in the U.S. are economic refugees, fleeing starvation (López, 2007; Stephen, 2007; Mares, 2019). Thus, more scholarly attention needs to be paid to binational comparisons of food access. Studies have shown food insecurity on both sides of the border, but a direct comparison of how farmworkers perceive their access to food prior to and after migration is absent from the conversation.

Forty farmworker families in Oxnard, California, were interviewed about the advantages and disadvantages of access to food in both contexts. These interviews reveal the paradox of access to high quality food alongside hunger and starvation, and subsequent access to improved quantity but insufficient quality of food. Respondents shed light on the qualities of food from home that they miss, and note the difference in taste between the freshly harvested, freshly slaughtered, local and organic food from home, and the second-class global, industrial, conventional food they are relegated to at discount grocery stores in the U.S. This study reveals the tension between two notions of food access: sufficient quantity and preferred quality. Conditions of poverty on both sides of the border create different types of food insecurities, but in neither context do farmworkers have sufficient quantities of quality food.

Prior to migration, farmworker respondents had access to fresh, local, flavourful, organic produce that they grew themselves. However, lacking structural resources like irrigation water, they were unable to feed themselves all year round. In the absence of employment opportunities to earn money to buy food, farmworkers faced severe hunger when their harvests ran out. Now, post-migration, while they are able to earn money to fill their stomachs more than before, the type of food they have access to is not the type of food they wish to be eating. Previous studies on farmworker access to food highlight high rates of food insecurity, but by focusing on amount of food, they miss the necessary component of preferred quality. As low-income labourers, the food they can afford at grocery stores lacks flavour and freshness. They value local and organic food because they remember what it tastes like from home. Therefore, efforts to improve farmworkers' access to food should focus on improving quality and not just increasing quantity.

Inadequate access to food on both sides of the border

Farmworker food insecurity

For many farmworkers, hunger is the driving force that led them to cross the border to find work in the United States (Mares, 2019). In the Mexican countryside, migration is the alternative to starvation (López, 2007). Farmworkers refer to this as *aguantando hambre*, enduring hunger (López, 2007), and through the phrase '*Allá no tenemos nada que comer*: back there we had nothing to eat' (Carney, 2015; Carney, 2017). Yet, once they arrive in the United States, farmworkers continue to face insufficient access to food (López, 2007), as "those who produce our nation's food are among the most likely to be hungry" (Brown and Getz, 2011: 121). Farmworkers face a 'double burden' of harsh working and living conditions on the one hand, and food insecurity on the other (Castañeda et al., 2019).

Rates of farmworker food insecurity are often measured using the 18-item USDA Household Food Security Survey. Utilizing this method results in a wide range of percentages. Along the U.S.-Mexico border, 87% (Castañeda et al., 2019) and 82% (Weigel et al., 2007) of farmworker respondents were food insecure, with 49% experiencing hunger (Weigel et al., 2007). In North Carolina, 64% (Borre et al., 2010) and 61% (Pulgar et al., 2016) of farmworker families experienced food insecurity, with 35% experiencing hunger (Borre et al., 2010). In Idaho, half of respondents were food insecure (Meierotto and Som Castellano, 2020). In California, 66% of respondents in Salinas were food insecure (Kresge and Eastman, 2010), while 47% of farmworker respondents near Sacramento sometimes or frequently run out of food without money to buy more (Wadsworth, Rittenhouse, and Cain, 2016), and 45% of respondents in Fresno were food insecure, with only 11% experiencing hunger (Wirth et al., 2007). In another California study, among indigenous farmworkers on the Central Coast, 100% reported food insecurity with hunger (Minkoff-Zern, 2014a). Thus, rates of food insecurity and hunger reported in these studies vary substantially, which raises questions as to the survey's reliability as an indicator.

Standardized measurements of food insecurity are most useful when they are comparative. Wirth et al. (2007) found that documentation status is correlated with food insecurity. Among documented farmworkers in the study, 34% were food insecure, while 55% of undocumented farmworkers were food insecure. This overlaps with indigeneity, as 98% of indigenous Mexican respondents in their study were undocumented. Food insecurity has also been found to vary by season and presence of children in the household. For households with children, 56% faced food insecurity compared to 36% of households without children (Quandt et al., 2004). Monthly income among farmworker respondents averaged $492 in winter and $781 in summer (Wirth et al., 2007).

Farmworkers continue to face food insecurity in the United States due to low wages and seasonal unemployment. This is compounded by the lack of spatial access to food in some rural areas (Meierotto and Som Castellano, 2019; Mares, 2019; Guzmán and Medieros, 2020). Distance to the supermarket constrains access to food among farmworkers in Idaho, as they have very little time to travel there when working 12-hour days, 7 days a week (Meierotto and Som Castellano, 2020). Once groceries are procured, farmworkers face an additional dilemma of cooking space. Crowded living situations and inadequate kitchen space, including lack of reliable electrical circuits to plug in kitchen appliances, also limit their ability to prepare food (Quandt et al., 2014; Minkoff-Zern, 2014c; Meierotto and Som Castellano, 2020).

Difficulties obtaining food are exacerbated by lack of access to food assistance services. Undocumented farmworkers are ineligible for public programmes such as food stamps (Brown and Getz, 2011; Minkoff-Zern, 2014a; Meierotto and Som Castellano, 2019). In addition, they do not take advantage of the safety net programmes for which they do qualify, such as WIC for their citizen children, because they fear it will jeopardize future chances of gaining citizenship and because they are afraid of being deported if they identify themselves to government officials (Minkoff-Zern, 2014a; Carney, 2015). Language barriers further erode access to safety net programmes, because even if staff members are bilingual, some indigenous farmworkers do not speak Spanish (Minkoff-Zern, 2014a). Therefore, food assistance programmes often do not reach the undocumented indigenous farmworkers who experience the most food insecurity.

Even when farmworkers do access food assistance programmes, the experience is often not culturally appropriate. Minkoff-Zern (2014a) found not only that respondents felt powerless when accepting charity, but also that they were not accustomed to the donated food they received from food banks, which was often old or expired, and never fresh. It is therefore important to consider the quality and not only the quantity of food to which farmworkers have access. Food insecurity rates do not reveal the types of food to which respondents have access, and whether it is of preferred quality.

Preferred quality of foods

Food insecurity has been defined as uncertain ability to acquire acceptable foods due to limited financial

resources (Weigel et al., 2007). According to Mares (2019), the way food insecurity is measured keeps the food insecurities that farmworkers experience hidden. It does not capture the qualitative dimensions of food access, such as the cultural relevance of foods. She points out that "Numbers alone do not account for the embodied and emotional consequences of going without *meaningful* food" (p. 59, emphasis added). The farmworkers in her study faced significant challenges accessing "culturally familiar foods", such as *chiles* and herbs like *epazote*. Other respondents have said that vegetables they were used to eating in Mexico, such as *verdolaga*, otherwise known as purslane or Mexican parsley, are difficult to find in the U.S (Wirth et al., 2007). *Papalo*, *quintonil*, *herba mora*, and *quilites* are other crops that hold significant cultural importance to farmworkers from Oaxaca (Minkoff-Zern, 2014b). Not only is it difficult to find traditional foods in stores in the U.S, but crops that could be grown outside their homes in yards in Oaxaca are expensive to buy when located at stores post-migration (Guarnaccia et al., 2012).

Besides less access to traditional leafy greens, another dietary change post-migration is increased consumption of meat. Due to financial constraints, it was uncommon to eat meat back in their hometowns. Across numerous studies, farmworkers who have migrated to the U.S. reported eating meat much more frequently than before (Borre et al., 2010; Guarnaccia et al., 2012; Mares, 2019). However, the meat they eat is of poorer quality. Back in Mexico, the meat would be fresh, because they would slaughter the animals themselves (Borre et al., 2010). Farmworkers distrust the meat they have access to in the U.S. because it comes wrapped in plastic, and they do not know how fresh it is (Borre et al., 2010; Guarnaccia et al., 2012).

Studies of farmworkers' dietary changes point to increased consumption of unhealthy foods (Wirth et al., 2007; Borre et al., 2010; Minkoff-Zern, 2014b). Respondents reported that their diets post-migration were made up of more processed foods. "They prioritized purchasing high calorie foods that would keep their families satiated", explains Minkoff-Zern (2014a: 215), "and they could no longer afford nutrient-rich, yet calorie-poor fruits and vegetables". Her study shows that farmworkers' diets in rural Mexico consisted of more vegetables than they do in the U.S.

Indeed, Wadsworth et al. (2016) found that if money was not an object, farmworker respondents would purchase more fresh fruits, such as strawberries, mangos, pineapple, and melon. Kresge and Eastman (2010) found that 93% of farmworker participants would like to eat more fruits and vegetables than they currently do, and 96% of participants expressed a strong preference for eating natural or organic foods if they were more accessible. All of the participants in Minkoff-Zern's (2014a) study stated that they preferred to consume organic, but that they were unable to afford it in the U.S. The food they grew themselves prior to migration was grown without pesticides or synthetic fertilizers, whereas produce purchased at grocery stores, like cilantro for example, "has another flavour" because it is grown with chemicals.

The foods that farmworker respondents in these studies miss from their previous diets are fresh, natural, organic, nutritious, and culturally appropriate herbs and vegetables. This does not come through in standardized rates of food insecurity, which capture respondent perceptions about adequate amount of food, but not preferred quality. Thus, more open-ended research on farmworker access to food is needed to understand the binational experience of how the quality and quantity of food changes with migration.

I found that farmworkers face food insecurities on both sides of the border, but the nature of the insecurity is different. Prior to migration, they may not have had enough to eat, but the type of food they did eat was fresh, natural, locally grown, organic, and flavourful. Now, they only have access to conventional industrial grocery store products. While they may be able to obtain more food after migrating to the U.S., it is not the food they wish to be eating. Mares (2019: 68) refers to this as "the continuation of, yet differentiation between, the food insecurities that migrant workers confronted in their countries of origin and the insecurities they experience" in the U.S. They are food insecure in both contexts, but the type of insecurity changes.

My study reveals the tension between two notions of food access: having access to sufficient quantity of food,

and having access to preferred quality of food. It is essential to have both, yet that is not the case for the farmworkers who harvest fruits and vegetables on the California coast, as they have only one without the other.

Methods

Data on how farmworker access to food changes with migration were collected between September 2017 and April 2019. In total, 40 farmworker families were interviewed. Sometimes I interviewed spouses together, and sometimes I interviewed only one adult. I recruited farmworkers to be in my study by walking through residential neighbourhoods, greeting passers-by, and asking if they met the qualifications and would like to participate in the study. After obtaining informed consent, I audio-recorded interviews and transcribed the recordings in Spanish first, before translating them into English. The interview data analysed for this article are part of a larger research project on field workers' experiences harvesting on organic and conventional farms (Soper, 2020; Soper, 2021). My interview guide consisted of questions on working conditions first and consumption of food second. Therefore, while the larger project is based on interviews with 65 farmworkers, I carried out the second half of the interview with only 40 households. All respondents have been given pseudonyms. To maintain anonymity, I did not ask for any identifiable information, including name.

This research took place in the town of Oxnard, which is located in Ventura County, an agricultural and suburban county located on the Central Coast of California, between Santa Barbara and Los Angeles. Ventura County specializes in various crops, including citrus, avocados, celery, and bell pepper, but all of the respondents in this study have predominantly worked in strawberry, raspberry, and leafy green production.

The majority of farmworkers in this study are indigenous Mixteco-speakers from the Mexican state of Oaxaca. Indigenous farmworkers in California are concentrated more on the Central Coast than the Central Valley, and they come from a specific region of western Oaxaca, where it borders the states of Guerrero and Puebla (Mines, Nichols, and Runsten, 2010). My sample is roughly half male and half female. Increasingly, there has been a trend towards the feminization of agriculture, as more immigrant women are employed as field workers (Meierotto and Som Castellano, 2019). In addition, there has been a shift away from the migratory nature of farm work that follows the harvest up and down the region, towards farmworkers settling long-term in rural communities (Meierotto and Som Castellano, 2020). That is the case with these respondents as well, as the vast majority are parents, raising their children in the area, and sending them to school year-round. Some respondents migrate north during the summer, but others stay in Oxnard to hold on to their rental and not have to find a new place to live when they return at the beginning of the school year.

Prior research on farmworkers in Oxnard found that 78% of respondents were food insecure, in one study (Friesen and Humel, 2013), and 59% were food insecure, in another (Maxwell et al., 2015). Friesen and Humel (2013) used the USDA Food Security 6-question module, including the questions: "in the last 12 months did you or your family eat less than you needed to because you didn't have enough money to buy food?" and "in the last 12 months were you hungry or didn't eat because you didn't have money to buy food?". Maxwell et al. (2015) asked a yes or no question on whether the respondent's family had enough to eat or not.

To gather data on food consumption, I asked a few open-ended questions, rather than using the standardized questionnaire. After finishing the first section of the interview guide about working conditions, I asked respondents where they were from, and then asked: "How is the food from there, how is it different than the food from here, and which is better?" After asking respondents to describe the food they eat on both sides of the border, I then asked about "*hambre*" and whether, in both contexts, there is enough food to "*llenar el estómago*".

Respondents began by describing the high-quality food they ate back home and how much better it is compared to the food they eat now. They stated that food back home was better because it was natural, organic, fresh, and recently harvested or slaughtered from their own farm. They typically did not respond by talking

about lack of food. Only when I followed up with questions about sufficient quantities of food and whether they had ever faced hunger, did they open up about not having enough to eat. Although they unanimously pointed to facing more hunger back home than they do in California, some reported seasonal hunger in the U.S., while others claimed they have enough to eat all year round. There was variation with regard to having sufficient quantity of food post-migration, but all wished they had access to better quality food, particularly chemical-free food. All respondents had more access to organic food back home than they do in California.

Findings

Better quality food in Mexico

Respondents considered the food they ate in Southern Mexico to be of better quality than the food they eat on the Central Coast. In particular, they noted that food was more natural, fresh, and organic where they came from, because they grew it themselves and knew what went into it. "The vegetables are fresher," explained Juan; if they wanted to eat a tomato "we grab it and prepare it." Dario told me food was better back home because they knew where it came from: "It's better because the food is made by you; you prepare and harvest it with your own hands. And here, you go shopping, you don't know if it's good or not."

In contrast to the natural and organic food from home, respondents pointed to the food they eat in California as *puro químico*, "pure chemicals". Claudio, when answering the question about differences between food at home and in the U.S., said: "It's very different, because we know the food from here is pure chemicals. What we're eating is pure chemicals. The lettuce, all of the vegetables, are pure chemicals. And in Oaxaca, no. Over there it's natural, pure rainwater. No chemical is applied. And so it's more organic over there, it's healthier." Hugo told me that they eat the same foods in California as they did back home; the only difference is that there, "what one eats is what they plant on their own land. Corn, beans, melon, what the land can produce over there", whereas in California the food is pure chemicals, "*aquí es puro químico*". Ramón explained that "food in Mexico is delicious. It is *puro orgánico* because fertilizer is not used." Victor said that back home where they planted corn and herbs, they did not spray any chemicals, "all of it is natural". Sergio insisted that food from home was better because "that type of food is one hundred percent organic. Pure soil, totally organic, none of it was conventional."

Respondents referred not only to crops as more natural, fresh, and organic, they also spoke that way about livestock. According to Natalia, "all types of meat – chicken, steak, all of it – contains chemicals, and there no, they grow with only pastures, all organic, nothing is put in them. Back there it is more organic, and here no." Carmen commented that food was better in Mexico because meat did not come with injections; it was fresher than in the U.S. "*La carne aquí es pura congelada*": meat here is all frozen, whereas at home it is recently slaughtered.

Raúl talked about how the livestock and chickens are *recién matados*, "recently slaughtered" from their own ranch, "and here we do not know how long since they were slaughtered, we do not know how long they are refrigerated, how many months". Alma complained that everything in the U.S. was store bought, like eggs, whereas back home everything came from their own farm: "meat comes from your own animals that you slaughter: chicken, pigs, cows". Food there was better quality because "*todo es recién, no está congelado*", everything is recent, not frozen. Fausto emphasized how meat in the U.S. spends so much time in the refrigerator. In contrast, in Mexico "you have your animals, you kill them [motions with his hands], and the meat is better." When comparing food from home to food in the U.S., respondents also pointed to a difference in taste. Saúl told me there was "more flavour there – recently slaughtered, recently made – and here no, it spends so much time in the refrigerator". "All the food is fresh, and here it spends too much time in the refrigerator", echoed Fausto: "food here doesn't have flavour". Juliana explained that "over there, everything is fresh. The vegetables are fresh, the meat too. They do not use the refrigerator much." Blanca said, "there it's better because the meat is recent, not frozen. The vegetables too, they have a different flavour."

Vegetables, fruits and grains from back home include the traditional *milpa* of corn, beans, and squash, as well as

rice, lentils, sweet potato, green beans, chili, radish, onions, tomato, cucumber, cilantro, peaches, melon, nopales, prickly pear, chayote, chilacayotes, and guaje. "Guaje has a long vein like this, and you open it – that's what we ate a lot of," Claudio reminisced, adding "over there we prepared beans in different ways; you can grind it, put a little chili into it. It's so delicious! *Que sabroso sale. Bien sabrosa sale la comida*".

Food back home had better flavour, according to respondents, not only because of how it was grown, but also how it was prepared. Claudio blushed with pride as he relayed his food memories from Oaxaca, especially eating warm tortillas, *hecho de mano*, cooked over a wood stove, not gas. Hugo and Ramón also emphasized how much better tortillas were back home because they were handmade. Paloma reported that at home beans were cooked daily, *recién cociditos*, whereas in the U.S. she cooks them only once every eight days and keeps them in the refrigerator. Back home "*es más sabrosa*", it's tastier, she said. She was very nostalgic listing all the foods she ate back home, saying they were *todos sanitos*, all healthy.

Respondents talked with pride about how delicious food from home was because it all came from their surroundings and was grown naturally without external inputs, like pesticides, fertilizers, or irrigation. However, this initial praise eventually unfolded to reveal inconsistent access to food because of unpredictable weather patterns and harvests that ran out.

Lack of irrigation

While respondents pointed to how natural their agriculture was, in that it relied exclusively on rainwater, they also frequently mentioned waiting for rain before they could plant. Sarita said that where she came from, food was *pura orgánica*. "*Casi no hay convencional*", there is hardly any conventional farming, she explained. If somebody wants to eat a tomato, they go and pick it because it's not sprayed with anything. Then she went on to explain that they did not have access to irrigation, only to rainwater. "God willing", if it rains, they have corn, otherwise not. Facundo said there was hardly any water in his home community; it was very dry. They had to wait for rainy weather, "*tiempo de lluvia*", in order to plant, and only grew a little corn. Claudio had very little land and it was not irrigated, so they could only plant when it rained. "*Cuando no llueve, no hay nada*", he continued: "when it doesn't rain, there's nothing".

Felipe reminisced fondly about the herbs they would eat back home, but only when it rained, he clarified, because there was no irrigation. There were difficult times when it did not rain. "If it rained well, there was food. But if not, there was not." The *milpa* did not produce enough to feed the whole family, Sofia added. Only when it rained well did corn and beans grow, but sometimes it did not rain at all, and sometimes it hailed. Then they would lose everything. Tomás told me that back home they planted only corn and beans, and only during the rainy season. "There was not much water back home", he explained, "and not much food. Only a little food. Sometimes there was, and sometimes there wasn't. Sometimes all we had was tortilla. And there was no money to buy food."

As the respondents praised the better flavour of food grown back home, they also noted that crops took a long time to grow, and that yields were small, resulting in less food to eat. Agustín started by saying that back home all the food was better because it was natural. But then he talked about how there was no fertilizer to apply, and so not enough food was produced: "*casi no da tanto*", it hardly yields much. Dulce said everything she ate back home was organic. It also had a sweeter taste (*más dulce)* and had more vitamins *(más vitamina)*. However, crops took longer to grow back home, she explained; it could take as long as a year, whereas in the fields of California, crops grow much quicker. Paloma told me that *elotes,* corn on the cob, were very good and sweet, *bien dulces*; however, they were quite small. Same with the squash; they did not grow big, but they were very tasty, *bien sabrosa*. She did not even need to add sugar, like she does in the U.S., since the squash was less bitter.

Lidia said that the flavour of food was better back home because everything was organic, whereas in California it was all chemical: "*porque todo allá es orgánico. Aquí es puro químico*". They raised chickens themselves,

feeding them organic corn, and it was very tasty. But then she went on to explain that everything was organic because they did not have money to buy fertilizer or chemical inputs: "*allá no hay dinero para ir comprar abono, no hay dinero para comprar químicos*". Growing without fertilizer was not necessarily a choice, it was their only option.

Calixta talked about how food from home was so tasty because the tortilla was *hecho de mano* over a word-burning stove. But then she went on to explain how sometimes the corn and beans ran out, and she remembers going to bed hungry. "*Si no llueve, no hay maíz*", if it does not rain, there is no corn. Where she grew up, it was very poor because they did not have water; they would always be waiting for the rain, "*esperando la lluvia*". Without access to irrigation or other inputs, yields were low and unreliable. The fresh, organic, natural, and flavourful food from home was a double-edged sword, in that it was tasty but did not last long.

Hunger when the harvest ran out

Initially, Magdalena reminisced about how food from home contained no chemicals; it was all natural, all organic ("*nada de químico, todo natural, todo orgánico*"). When it rained, vegetables and herbs would grow between the rows of corn and beans in their *milpa*, and they had *quelite, elijote*, cilantro, and radish to eat. Overall, though, her childhood was difficult, and oftentimes she went to bed hungry. "*Nosotros batallamos mucho.* We struggled a lot when it came to food. We did not have enough to eat, so we became accustomed to not eating much. We would put a little salt on a tortilla with chili, and that is what we ate. With a glass of water." Once in a while they could afford to buy a roll of bread, and she and her six brothers and sisters would pass it around taking one bite each, "*un bocadito de pan a cada quien*". Magdalena became very emotional when revealing her painful memories of childhood hunger. "*No había nada de comer. Teníamos muchísima, muchísima hambre*", she cried. "There was nothing to eat. We were very hungry."

Like the others, Sofia also mentioned how food back home was better because it was "*pura comida natural, sin químico*", purely natural food, without chemicals. But, on the other hand, she continued, "*Allá no hay dinero para comer*", there is no money for food back home. In the U.S., "there is more work, there is more money". Dora concurred that there was no money to buy food, "*no tenia dinero para comprar comida*". Corn and beans were all they had to eat. Pablo told me that they would eat corn, beans, and squash from their *milpa* "*para sobrevivir*", to survive. I asked if there was a necessity to buy food, and he replied, "yes there was necessity, but there was no money".

Juan explained that they did not have access to irrigation, so they planted only during the rainy season, *por temporada de lluvia*, and harvested only once a year. "*Lo que sale es lo que comemos*": they ate only what they harvested because there was no money to buy more food. "*Por eso tenemos que buscar oportunidades para trabajar porque allí no hay trabajo*", said Juan, "that is why we have to look for opportunities to work, because there is no work back home". Pancho said he sometimes experienced hunger, when their crops ran out and there was no money to buy food. "It depends on whether a person has land, what area they're in, if there's rain"; that will determine whether the food will last or not. Then he added that he never faces hunger in California, because there is always enough work.

I asked Marisol if food was better or worse in Mexico, and she said it was better there because people farmed organically. But then she went on to explain that "life was very difficult. That is why we came here for work." Thus, while food was clearly better quality back in Mexico, there was not a sufficient amount of food and hunger was rampant. All respondents reported that they faced less access to food back home than they do in California.

"Which is better, food in Guerrero, or here?", I asked Alma. "There", she replied, "but back home there's not as much possibility, there's not as much work, there's not enough for one to eat well. There are times when there is something to eat, and there days when there is not. *Hay días que no hay para comer.*" Martina said it was a struggle to find enough food to eat. "If we had some beans, we would save them, eating little by little."

"*Batalla mucho para conseguir comida*", she continued; "we struggled a lot to obtain food." "Was there sufficient food to fill your stomach?", I asked, to which Lidia replied "No! The truth, sincerely, no. *Allá comemos pobre*. There we ate poorly. *Hay más comida aquí que allá. Allí no hay mucho*. There is more food here than there. Back home there is not much." Occasionally they would have enough money to buy a popsicle, but it would be one popsicle that she would have to share will all her siblings.

Blanca stated that there was much more hunger back home because of the lack of work, "*la falta de trabajo*". There was no money to buy food, and here, there is more work and more food. Pedro admitted that they were barely surviving back home, because there was hardly any work and the wages were low. "*Pagan poquito*", Armando agreed. The minimum wage of 100 pesos a day buys very little, only a bit of milk or a bit of meat, that is all, and when it ran out, he was left needing more to eat. By contrast, in the U.S., with 100 dollars, what they make in a day with minimum wage, one can buy plenty of food, *bastante comida*.

Claudio told me he faced hunger back home because food was so expensive compared to what they could earn. What they had to eat was tortilla, beans, and squash: "that's it. *Eso no mas*." Sometimes they were able to afford meat, but only occasionally, not as often as they would like, because a kilo of meat costs 80 pesos, "almost a day's work!" Sergio said the food they had back home was not enough, *no alcanza*. "People travel far to find work to earn enough money to buy food. That is life. *Así es la vida*", he said matter-of-factly. "*De la pobreza, venimos por acá*. We came here because of poverty."

The corn harvest takes place from October to December, Tulio explained, but by summer it is difficult to secure food to eat. When the harvest runs out, they must buy corn, but it is a two-hour drive to the nearest city, and they do not have a car. Saúl said the months back home that were most difficult to eat were September through October, right before harvest, when the previous year's harvest had run out. There was more hunger back home, "because the minimum salary is not enough, and here it is; here there's lots of work, and more work means more money." According to Fatima, there was hunger all year long, and there was no money to buy food. "All we had was tortilla with a little egg, a little salsa, that was it. Here there is everything. *Aquí hay todo*."

Alviña told me about the hunger she faced back home: "sometimes there's nothing to eat because there's no work. That is why we came to work here, to be able to take care of our families back home. And here we earn enough to be able to live and send money back to my family over there." Ramón told me how he grew up poor, and on some days there was no food to eat. Whereas here, *comimos bien*, we eat well. "We didn't earn there what we earn here, and the money didn't go far enough. That's why we continue in this country. Because there is enough to eat. *Porque de comer sí hay*."

Food insecurity on the Central Coast

As indicated above in respondents' comparisons between access to food back home and access in the U.S., they clearly experienced more hunger prior to migration. Some respondents reported having enough to eat all year long on the Central Coast, while some reported seasonal hunger during the winter months when there is less work. While experiences of hunger in the U.S. varied among farmworker respondents, all reported less access to natural, fresh, and organic food post-migration.

Juliana said that in Oxnard, when they work, they have enough money to buy whatever they want. But back home it was different, they did not have enough. "*Aunque sea mejor la comida, no tenemos para comprarlo*" she explained, "even though the food was better, we did not have [enough money] to buy it." When I asked Sarita if there was sufficient food to eat in Mexico, she replied, "truthfully, no. There was not enough to eat. Because back home, we always lacked money." When I asked the same question about the U.S., she replied "here there is almost never hunger because one is always working". Natalia said back home they lacked money to buy food because there was no work, whereas "here, one eats whatever one wants because there is work". I asked if they ever lacked money to buy food in Oxnard, to which she replied: "*No, aquí no nos hace falta en*

dinero, siempre he tenido para comprar comida. No, here we never lack money; we have always had enough to buy food."

Felipe lamented that back home they would go to the market and see all this beautiful fruit, and the kids would ask for it, but there would be no money to buy it. They would worry so much about money, but here, Felipe is confident that there is always enough money for food: "The kids ask for fruit, for candy, and I can get it for them, because we're not afraid of spending money, because we're working and every week a new cheque arrives." Tomás assured me there was enough to eat in California, "*Si, hay suficiente comida*. Here there is work." Juliana also emphasized how she has access to a sufficient amount of food here: *hay suficiente, hay bastante*. Blanca likewise answered that there was "always a sufficient amount, all year long". Paloma told me that there was always enough to eat in California: "We want for nothing. Thank God, we don't lack food. That's why we're here, getting paid, because we don't lack anything."

Armando said that 15-20 years ago in Oxnard, they faced seasonal food insecurity because there was no winter strawberry harvest, there was no raspberry production, but today there is work all year round. His family of four can spend $200 on groceries: "we can buy juice, milk, eggs, meat, everything we need". Alviña explained that there were previously some months without enough money to buy food; when the strawberry harvest ended, there were two or three months without work, when there was no income to buy food or send money back to family in Mexico. But now that she works in the vegetable harvest, she is employed all year long, and there is always income to buy what they need for the house.

Whereas the above respondents claimed that seasonal food insecurity was behind them, others still experienced hunger. "There is hunger here too, there is suffering. But here there is a little less", Martina said. "Here, it's partly good, partly bad. We still struggle a lot. You have to work all day to have enough food. If there is no work, there is no food", she explained. "We still face hunger here", Fausto told me. After they pay the rent, sometimes there is not enough money left over for food.

On the Central Coast, rents are high. Many respondents pointed to rent as a financial burden, and one they were not used to. In Mexico, Saúl told me, they did not have to pay rent for their house, and here they have to pay for food and rent, everything. Dora also mentioned having to pay rent here, but not in Mexico. Sergio lives in a three-bedroom apartment, which costs $1800 per month in rent, so his family rents only one room, and pays $600 a month. Ramón also pays $600-700 in rent for one room.

Respondents still face months of the year when there is not enough income to cover all their costs. Augustín told me that December is the most difficult time of the year because work runs out and there are no more paycheques. After they pay rent, "*no alcanza el dinero*", there is not enough money left. January is also tough, but by February there are strawberries to harvest. In March, April, May, and June there is the most work, then in July it starts to slow down, and by September there is hardly any, explained Claudio. Alma said that sometimes there is good work, and sometimes not. "Right now, in this season, it's good, we have food to eat", she told me during an interview in April, which is peak strawberry harvest season. December and the first part of January are when it is most difficult, she explained. All year long is difficult, said Fatima, but from September to Christmas is the hardest.

Most respondents pointed to the winter months as the time of year they worked fewer hours, or not at all. Gloria said that while there is work all year round, sometimes there is less of it, and their paycheques come out small. November, December, and January are hardest. She always makes sure to buy eggs, beans, and oil. If there is enough money, she buys meat and vegetables, but not always. Sergio was clear that there is more access to food in California than back home, but still admitted there are difficult months. During the summer they save as much as they can so that they can afford to buy food in the winter months when their paycheques are smaller and when there are more family expenses.

There are good times, and difficult times, Lidia told me. When there is good work, they earn enough to survive. But there are also bad times, when there is not much work, and they are let go early in the day. For example, when it rains, they are not allowed to work in the fields because of the mud. "It's difficult but we can't avoid it because that's nature," she explained. Marisol also pointed to rainy weather as the time when it is most difficult to feed her family. "They don't let you work because of all the accidents", she explained, and as a result she does not have enough money when she goes grocery shopping. Saúl also said December was the most difficult month to find enough to eat, because of the rain and loss of work. Facundo works harvesting vegetables, so there is production all year long, but he still faces food insecurity from October to February because he works fewer hours when it rains. Thus, in both contexts, much of their livelihood and sustenance is based on weather patterns: back home, they wait for rain in order to plant, and here, during the rainy season there is less work, and therefore smaller paycheques.

When it rains, sometimes they work only two days a week, and bring home a cheque of only $80, Ramón explains: "Obviously that is not going to reach, but then the work starts back up again." December, January, and February are the most difficult months, Dulce and Magdalena agreed, because there is less work, and they work fewer than eight hours a day. When there is less work, and they are only making $100 or $200 a month, it is a struggle to buy food.

"When I'm working, anything that I want to eat, I have the money, so I eat it", explained Magdalena. "Thank God, when there is work, we don't lack anything. When I have the urge to eat something, I go to the store and buy it." She contrasted this to growing up hungry, and said what a shame it was that her daughters sometimes took a bite of food and threw the rest away. There is so much food in the U.S. that people take it for granted, felt Magdalena. Claudio said that while they might not be able to buy everything they want, he does not experience hunger. They can afford eggs, beans, rice, and milk; and if there is a little more work, they can buy other things too. He explained that while it was possible to experience hunger in California as well, occasionally, when there was no work, back in Oaxaca there was never work, and there was always hunger.

Less access to organic

While some respondents pointed to seasonal food insecurity in Oxnard, others said there was enough income all year round to afford groceries. Yet even those with enough food to eat still lacked access to the same quality of food they ate back home. Pancho said he does not eat organic food in California "*por el precio*", because of the price. "The price is a little bit higher," he explained. The same went for Juan, who does not buy organic food "because organic costs more". "It is more expensive," Hugo said, and Felipe added, "it is too expensive". Tomás said he does not eat organic "because organic is expensive, and we earn little". "We go with what is cheapest", explained Sofía. Alviña said: "We eat what is cheapest, and that is conventional, because organic always has a higher price."

Few respondents reported being able to afford organic food, and those who did, only purchased organic for a small portion of their groceries. "On very rare occasions have we bought organic", said Claudio, "because organic is more expensive, it has another price, and we earn very little, very little money." "Organic costs a little more", explained Lidia. If the organic option was only 10 cents more than the conventional one, she said she would choose it, but if it was $1 more, then she would choose the conventional food. "Very infrequently do I go for organic", said Lidia. Once in a while Gloria will buy organic vegetables and tomatoes, but only sometimes because they are more expensive. Juliana estimated that 10% of the fruits and vegetables she purchased were organic. Sometimes she will buy organic tomatoes, apples, and zucchini, but when it comes to bananas, oranges, and watermelon she always buys conventional.

Sarita said she knew that the pesticides applied in conventional farming harms children, whereas organic does no harm, so she tries her best to buy organic from the store, but only does so rarely. "If I had a lot of money", of course I would buy organic, said Armando, "because it's healthier", but he is not going to spend $6 on organic, when the conventional option costs $1. "I hardly eat organic food here because it is very expensive",

explaineds Magdalena. Occasionally she buys organic apples or bananas because they are the cheapest organic options, but not often. She would like to be able to buy everything organic, but "we are never going to be able to spend so much money on organic". "I don't know why it's so expensive", she commented, "they charge way too much for organic food." "That's why we don't eat organic. If it were a normal price, of course we would. But we don't have access to organic, because of the price."

Thus, farmworkers who had access to organic food back home now lack access to food grown without pesticides. Pancho said the food he grew up eating back home was better quality than the food he has access to in the United States. Not only did he eat more vegetables, but the food was less processed, more natural, and free of pesticides: "*más libres de pesticidas*". However, even though the food was pesticide free, it was not organic, because they used synthetic fertilizers.

Similarly, Juan told me the food he grew up eating "is not organic because they apply fertilizer". Felipe said they did not use many chemicals in the *milpa*, "just a little fertilizer" which they applied to the seedlings so that they would grow. Tulio said the food back home in Oaxaca was "*casi orgánico*", almost organic, because they applied chemical fertilizer to the *milpa*. Dario said that some of the crops they cultivated were organic, but others were not because they applied chemicals to the corn and the beans "*para la plaga, las hierbas*", for the pests and weeds. There were however other herbs they grew without applying anything. Plus, they rotated crops and let the soil rest to improve fertility. All in all, the food was more organic there than in the U.S.

While the vast majority of respondents pointed to food from back home being all organic because they could not afford inputs, a few did mention the synthetic fertilizers that their family used. Yet even those who did apply chemical inputs to their crops back home still emphasized having more access to organic in Mexico than in the U.S. since the food they have access to in the U.S. is grown with many more chemicals. Lack of intensive pesticide spraying means food was more organic in Mexico, even if it would not be considered certified organic according to USDA definitions, due to the nitrogen content of the fertilizer used. Either way, the food they ate back home was grown with fewer chemicals than the food they have access to now.

Conclusion

Food insecurity is commonly measured through a series of closed-ended questions about presence or absence of sufficient amounts of food. Measured in this way, farmworkers are more food secure post-migration than in their home communities because they face less hunger. But if measured in terms of accessing meaningful food that meets desired qualities – fresh, locally grown, and pesticide free – then farmworkers are less food secure after migrating to work as agricultural laborers in the U.S. A qualitative exploration of food access reveals comparative food insecurities: lacking sufficient quantity in one context and sufficient quality in the other.

Carney (2015: 34) urges scholars to devote more attention to "the prominence of chronic food deprivation" as the motivating factor behind migration. This study does just that by shining light on the heart-wrenching hunger that farmworker respondents experienced back home. But it also shines light on the high quality of food they harvested and slaughtered themselves. After all the of the trauma of crossing the border and adjusting to life as immigrant laborers, they have not forgotten what it tastes like to eat fresh and organic food. With migration, their hunger has decreased but they are not truly food secure because they have lost access to the fresh food they were accustomed to. Rates of farmworker food insecurity miss the fact that even those who are considered food secure are not eating the quality of food they desire. Standardized indictors of food insecurity and hunger can be useful, but subjective and comparative understandings of the binational experience are also important.

The farmworkers in this study contrasted the poor quality of food post-migration to the fresh, local, natural,

flavourful food from home. One of the biggest indicators of quality that farmworkers point to is organic: they cannot afford to buy organic food in the U.S., but speak fondly about the natural and organic food they grew and ate before. Most respondents said that food in their home communities in Mexico was organic because they relied only on rainwater and could not afford inputs, while a few said it was not technically organic because they did apply synthetic fertilizer. However, either way, food from home was *more organic* than the conventional food they have access to in the U.S. because it was pesticide-free.

Local and organic foods are associated with privilege, and while farmworkers do not have this privilege, they recognize quality food because they had access to home grown crops prior to becoming economic refugees. Fleeing starvation to work as agricultural labourers in the U.S., they arrived to a situation in which they are not only exposed to pesticides at work but also are relegated to low-class industrial conventional foods available at discount grocery stores.

One way for farmworkers to be able to access fresh, nutritious, local, and organic produce post-migration is through gardening. Scholars have promoted home and community gardening as a way to mitigate farmworker food insecurity. Minkoff-Zern (2014a) found that a farmworker community garden on the North Central Coast of California allowed indigenous immigrants from Oaxaca to access organic produce and eat a healthier diet than they could otherwise afford. As she notes, "gardens made these otherwise privileged foods available to them" (Minkoff-Zern 2014a: 215). Mares (2019) also points to gardens as a way to address farmworker food insecurity. Through a project where dairy workers maintained home gardens on the farms where they lived and worked, they were able to cultivate crops with increased nutritional value and cultural significance.

Kresge and Eastman's (2010) research in Salinas found that while only 37% of respondents indicated they already grew fruits and vegetables for self-consumption, 71% of those not currently producing their own food said they were interested in doing so. Similarly, Friesen and Humel's (2013) research that took place in Oxnard found that only 21.5% of farmworkers surveyed were currently growing some of their own food, but 77% of respondents said they were very or somewhat interested in doing so. Meierotto and Som Castellano (2020) found that although few farmworkers in Idado were gardening currently, many of them were interested in doing so.

Future studies should examine whether home and community gardens are a viable channel through which farmworkers can access fresh and organic produce, or if they are viewed as additional farm labour tacked onto an already exhausting week. Minkoff-Zern (2014b) notes that not every farmworker in her study wanted to garden, as many did not have the energy or desire to do so after labouring in the field all day. Yet, she also explains that garden participants contrasted the holistic process of gardening to the repetitive menial tasks they did while working in monocrop fields.

While gardening may be an important coping mechanism for farmworkers, as a short-term and immediate way to address food insecurity, it is not a solution to the problem (Minkoff-Zern, 2014a). To address the root cause, larger structural change is needed, such as agrarian reform to support livelihoods in the Mexican countryside, and citizenship rights and a living wage for farmworkers in the U.S. (Minkoff-Zern, 2014a). These hard workers who harvest the fruit and vegetables that feed people across the nation and around the globe fled poverty and starvation, only to find themselves in another situation of impoverishment where the quantity of food they have access to has improved, but not the quality. Given the abundance of fresh food produced in the agricultural regions where farmworkers live and work, it is not a question of supply, but of distribution (Wirth et al., 2007). Farmworkers must be afforded more rights and resources to sustain healthy and meaningful lives.

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African swine fever and the adaptive capacity of ethnic minority smaller-scale producers of pork in the Northern Mountainous Region of Vietnam

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Aaron John KINGSBURY,[1,2] Ngoc Son HO,[2] Hoa Thi HA,[2] and Huong Thi Thu KIEU[2]

Abstract

One of the poorest areas of Vietnam, the Northern Mountainous Region (NMR) is largely populated by ethnic minorities. Women in these communities produce heritage breeds of pork on a smaller scale, providing them with opportunities and agency. This production also brings alternative sources of revenue outside of the cultivation of rice and corn, maintains genetic diversity, and continues indigenous knowledge systems of livestock management that have contributed to the resiliency of local communities for generations. Drawing on fieldwork in eight villages in Bac Kan and Lao Cai provinces, each populated differently by Hmong, Nung, San Chi, and Tay peoples, this article focuses on new forms of vulnerability brought on by African swine fever. With fieldwork conducted at different stages of the pandemic, African swine fever was found to be not only devastating local pigs but also strongly impacting the sustainable future of smaller-scale farming and the very livelihoods of many ethnic minority populations across the NMR. Overall, this article draws on this moment of crisis to provide strong evidence in support of nuanced policymaking that considers the complex and multi-scale interactions between geography, marginalization, ethnicity, and culture.

[1] Maine Maritime Academy, Castine, Maine, USA
[2] Agriculture and Forestry Research & Development Centre for Mountainous Regions (ADC), Thai Nguyen City, Vietnam

Corresponding author: Aaron John Kingsbury, aaron.kingsbury@mma.edu

Bibliographical notes

Aaron John Kingsbury, is an Associate Professor of Arts and Sciences at Maine Maritime Academy in the United States and serves as a research affiliate for the Agriculture and Forestry Research & Development Centre for Mountainous Regions in Vietnam. He has research experience in agricultural development and rural studies across several countries in Asia-Pacific.

Ngoc Son Ho, is an Associate Professor at the Thai Nguyen University of Agriculture and Forestry in Vietnam. He serves as the deputy director of the Agriculture and Forestry Research & Development Centre for Mountainous Regions in Vietnam. His research is centred on gender, indigenous knowledge, and climate change adaptation of ethnic minority people.

Hoa Thi Ha, is a lecturer at the Thai Nguyen University of Agriculture and Forestry in Vietnam. She serves as the director of the Agriculture and Forestry Research & Development Centre for Mountainous Regions in Vietnam. Her research is centred on gender, indigenous knowledge, and climate change adaptation of ethnic minority people.

Huong Thi Thu Kieu, is a lecturer at the Thai Nguyen University of Agriculture and Forestry in Vietnam. She serves as an advisor at the Agriculture and Forestry Research & Development Centre for Mountainous Regions.

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Introduction

On 19 February 2019, the Ministry of Agriculture and Rural Development (MARD) confirmed the African swine fever (ASF) outbreak in Vietnam. ASF is a virus transmitted by contact with infected pigs and by bodily fluids, or if swine consume pork products that contain the virus. Although it does not transmit to humans, it affects pigs and wild boars with haemorrhagic fever and high mortality rates. Since the original confirmation, all 63 provinces/cities of Vietnam have reported outbreaks and over 6 million pigs have been culled (FAO, 2020). The Northern Mountainous Region (NMR), an area largely populated by ethnic minorities (EM), has been particularly impacted.

The NMR is home to 31 (out of the 54) officially recognized ethnic groups in Vietnam, which together account for more than 50% of the total population of the region. These include the Hmong, Nung, Tay, and San Chi ethnic groups. Each group speaks a different dialect that belongs to one of several distinct linguistic groups, including Viet-Muong, Thai-Tay, and Hmong-Dao (Dien, 2002). The rural communities here are prone to multiple inter-related socio-economic stresses, including food insecurity, rising inequality, high debt rates, poor infrastructure, limited access to government services, and environmental degradation (World Bank, 2009, 2012; Rheinlander et al., 2010; Demombynes, 2013; Son and Kingsbury, 2020; Ha et al., 2021).

Many people here suffer from the direct effects of rapidly changing climatic conditions. While Vietnam is one of the most vulnerable countries in the world to climate change, it is in the NMR that this vulnerability is especially pronounced and visible. The impacts of climate variability in the region—as manifested through the longer and more frequently occurring periods of drought, flooding, and cold spells—have significantly rendered local communities more vulnerable to these and other environmental hazards (Delisle and Turner, 2013; Son and Kingsbury, 2020; Ha et al., 2021). These socio-economic and environmental issues compound existing stresses, thereby further increasing communities' vulnerability.

In social and economic terms, minority groups in the uplands are becoming more marginalized as the gap continues to grow between their living standards and development opportunities, and those of the wealthier lowlands (Cuc and Rambo, 2001; Tugault-Lafleur and Turner, 2009). These variations in income and opportunity are significant insofar as most EM groups in the NMR populate land at different altitudes (Dien, 2002), and their livelihoods are predominately based on agriculture, their main source of income and sustenance. Farming practices have been adapted to these conditions and include cutting down forests to produce new farmland, terracing hill faces, and establishing fruit and forest tree plantations (Son, 2013).

In Vietnam as a whole, the agricultural sector accounts for 22% of GDP and more than 60% of employment (Vietnam Livestock Competitiveness and Food Safety, 2009; Nguyen et al., 2014). Livestock production is one of its fastest-growing sub-sectors and accounts for about 42% of agricultural GDP. Pig husbandry is the most significant contributor to total livestock production, at around 70% (Vietnam Livestock Competitiveness and Food Safety, 2009; Nguyen et al., 2014).

Across the country, rapid urbanization, infrastructural improvements, and rising incomes have provided further choices in the diet for many urban and lowland Kinh (i.e., ethnic Vietnamese) (World Bank, 2009; Cassou, 2017). As a result, the consumption of protein from animal sources, and in particular from pork, has risen exponentially (Lapar, 2014; Nguyen et al., 2014; Hansen, 2018).

Consumers prefer to purchase meat fresh rather than chilled or frozen (Nguyen, 2017). The number of larger-scale pork producers has risen rapidly to match this growing demand (Cassou, 2017). Such producers use hybrid breeds in more intense confinement systems, import feed, and often situate their production in rural communities for cost advantages. Larger-scale pork production supplies domestic supermarkets in urban centres or export markets. Government policy tends to support the intensification of production (Herold et al., 2010).

Yet, not all the production of pork has shifted to the industrial scale. In the NMR, EM, typically women, produce most of the local or heritage breeds of pig on a smaller scale. Pork production at this level thus offers substantial opportunities for poorer communities to improve income, accumulate capital, generate family employment, and sustain livelihoods (Xuan et al., 2006; Vietnam Livestock Competitiveness and Food Safety, 2009; Herold et al., 2010; World Bank, 2012). The pigs are partially raised free-range and are able to root and rut in forests and harvested paddies. Heritage pigs mature sexually earlier, tend to be hardier, and are more resistant to diseases than are hybrid breeds (Nguyen et al., 2014). Overall, these smaller-scale systems are low-input, with feed grown or gathered locally, often by the producer. Indigenous knowledge (IK), that is, the systems of understanding that provide many NMR ethnic minority communities with more sustainable ways of reducing risk, are incorporated into management and decision-making (Son, Dong, and Kingsbury, 2019; Son and Kingsbury, 2020; Ha et al., 2021). This is in preference to, or more commonly in lieu of, veterinary services.

In the NMR, pigs represent a range of values in social, spiritual, and economic settings. Pork is consumed regularly at home in EM and Kinh households (Fieldwork, 2019). During holiday periods, it becomes indispensable. Pigs are given as gifts at weddings, funerals, anniversaries, and harvest celebrations, and are used to pay respect to ancestors. For example, the Hmong and Tay both use meals prepared of rice and heritage pork as part of worship ceremonies.

Financially, pigs constitute a form of capital investment for farmers, as the meat from pigs raised on a smaller scale is sold at local fresh markets. Moreover, preserving the smaller-scale producers not only provides benefits attributed to the conservation of genetic diversity and IK systems of management, and maintains higher standards of animal welfare, but also offers the potential for impoverished smaller producers to create unique opportunities to distinguish their production among wealthier urban consumers looking for niche-products (Huyen et al., 2005; Nguyen, 2017; Muth et al., 2017). While the majority of the pigs culled due to ASF were from larger and more industrial pork production facilities, it is these smaller-scale producers who were rendered even more vulnerable and further marginalized by the loss of income, social standing in their communities, and agency in family decision-making.

This article is based on data gathered from those smaller-scale producers in rural communities that are devastated by the effects of ASF immediately before, during, and immediately following outbreaks. It was collected as the mass culling of pigs across the entire northern region of Vietnam added considerable stressors to already fragile and precarious livelihoods. ASF was traumatizing communities and left smaller-scale pig farmers sad, scared, and in real positions of social, economic, environmental, and emotional vulnerability. It would not be an exaggeration to say the NMR was, and remains, in crisis. This study uses the case of the ASF pandemic in ethnic minority villages in two provinces in the NMR to gain a better understanding of the structural basis and diverse parameters of vulnerability, resilience, and adaptive capacity in marginalized communities.

Literature review

Vulnerability, resilience, and adaptive capacity

Vulnerability and resilience are concepts that are increasingly finding currency in several academic fields as well as in various policy and practitioner communities (Cutter, 2003; Knutsson and Ostwald, 2006; Vogel et al., 2007). The concept of vulnerability has roots in the fields of natural hazards, food security, and political ecology, and typically incorporates notions of a system's exposure to a set of hazards (Kelly and Adger, 2000; Klein et al., 2003; Buckle, 2006; Gaillard, 2007; McLaughlin and Dietz, 2008). Despite this, there is little consensus in the literature as to its meaning or how it relates to the concept of resilience.

Holling (1973, 9) defines resilience as 'the capacity of a system to absorb and utilize or even benefit from perturbations and changes that attain it, and so persist without a qualitative change in the system's structure'. In the social sciences, resilience can be defined as the ability of communities to withstand disturbances and

so to maintain their social infrastructures (Adger, 2000). In hazard research, this definition is refined slightly to mean the ability to survive and recover from a disaster event with minimal damage (Cutter et al., 2008). Overall, the views expressed in the literature range from considering vulnerability as the reverse of resilience (e.g., O'Brien et al., 2004), to incorporating resilience as one of the components of vulnerability (e.g., Turner et al., 2003; Manyena, 2006; Turner, 2010). Adger (2006) argues that both vulnerability and resilience research share common elements, including the shocks and stresses experienced by the social-ecological system, the response of the system, and the capacity for adaptive action. In other words, the points of convergence are more numerous and fundamental than the points of divergence.

While vulnerability and resilience may be perceived as two different but related concepts, adaptive capacity comprises the bridge between them (Paton, 2006; Paton and Johnston, 2006). An approach that both reduces vulnerability and enhances the resilience of a system is said to increase adaptive capacity. Focusing on adaptive capacity emphasizes that disaster-affected people should not be seen as helpless victims. Instead, development policy should increase their adaptive capacity to reduce future risk (Gaillard, 2010).

Ethnicity, pandemics, and the building of adaptive capacity in the north of Vietnam

There are clear and causal pathways linking ethnicity and low socio-economic status with poor health outcomes (Kaufman and Cooper, 2001; Mechanic and Tanner, 2007). In this regard, policymakers need to understand social vulnerabilities when developing policies that aim to build resilient communities. Policy interventions based on this approach target specific groups that are considered to be at risk of loss and harm (Paavola, 2008), and may also address the underlying factors that contribute to it. Such factors might include land tenure laws, unequal access to markets or credit, and the lack of social safety nets within unequal power structures and landscapes (Adger, 2006).

This article focuses on the impacts of African swine fever, an animal pandemic, albeit one with direct consequences to human health and welfare. The majority of academic literature on the vulnerability of ethnic minorities during pandemics is centred on the effects of underlying social issues on human health, largely in communities situated in the Global North. This has included studies on how minorities struggle with community mitigation measures such as self-quarantine (Blendon et al., 2008), have higher rates of distrust of the government (Quinn, 2008), suffer more from pre-existing health disparities (Pellowski et al., 2013), and are limited by educational, cultural, and linguistic barriers (Hutchins et al., 2009).

Michaud and Forsyth (2011) argue that ethnic minority communities in the NMR have been misrepresented as being marginalized and therefore powerless against social and environmental stressors. There is indeed a rapidly growing body of literature focused on how EM communities continually draw from various cultural sources to circumvent and respond, to maintain their livelihoods (see the examples of Hardy, 2003; Michaud and Forsyth, 2011; Turner, 2012; Turner et al., 2015; Turner and Bonnin, 2018). The present article does not suggest a lack of individual, collective, or even cultural agency. Rather, it explores how the adaptive capacity of these communities, already affected by pre-existing socio-economic marginalization, hazards, and climate change, is being modified by an ongoing pandemic. The aim is to more optimally determine how they and their cultural sources can best be supported. In other words, this article seeks to identify the appropriate measures that will help them to increase adaptive capacity.

This understanding will assist local governments in finding answers to the questions about who is vulnerable, what they are vulnerable to, the degree of their vulnerability, what the causes of that vulnerability are, and what responses can alleviate it (Cutter et al., 2012). As vulnerability is complex, evolving, and situation-specific, not all communities should be understood as being uniformly vulnerable. This article provides strong evidence in support of vulnerability-based policies, grounded on a more holistic consideration of the complex and multi-scale interactions between geography, marginalization, ethnicity, and culture. It looks at vulnerability, resilience, and adaptive capacity during an ongoing crisis, for both humans and animals, and is one of the first to focus on the numerous social, cultural, and economic impacts of the ASF pandemic on rural communities

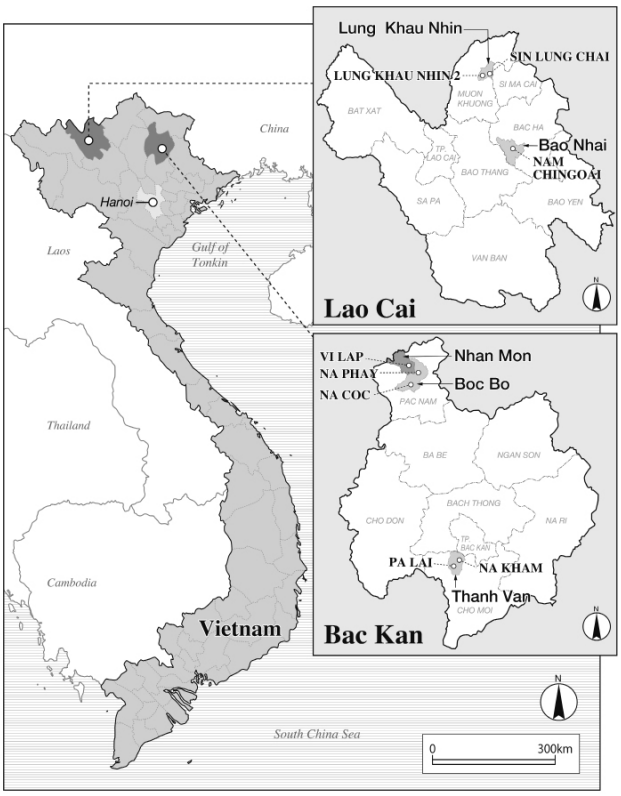
in the Global South.

Research methodologies

Study areas

Data for this study were collected from ethnic minority small-scale pork producers in Bac Kan province in the northeast and Lao Cai province in the northwest of Vietnam in August and September of 2019. These locations were selected as they are communities with majority EM populations that raise pork. Sites were also chosen based on the past occurrence, ongoing occurrence, or nearby proximity of African swine fever. In Bac Kan province, interviews were conducted in five villages. These included Na Phay and Na Coc villages (both in Boc Bo commune), Vi Lap village (in Nhan Mon commune), and Na Kham and Pa Lai villages (both in Thanh Van commune). In Lao Cai province, interviews were conducted in three villages. Sin Lung Chai and Lung Khau Nhin 2 are villages in Lung Khau Nhin commune and Nam Chi Ngoai village is in Bao Nhai commune. See Figure 1 for a map depicting the location of the study villages.

Figure 1: Map of study sites



Source: The authors

In Bac Kan, respondents were ethnic Hmong and Tay in Vi Lap village; San Chi in Na Phay village; Tay in Na Coc village; and Tay in Na Kham and Pa Lai villages. In Lao Cai, respondents of the Lung Khau Nhin commune were mainly Hmong and Nung people, while in Bao Nhai commune, they were Hmong and Tay. Table 1 categorizes the study villages by province, commune, and dominant resident ethnicities.

Table 1: Study site locations and ethnic composition of residents

Province	Commune	Village	Dominant Ethnicities
Bac Kan	Boc Bo	Na Phay	San Chi
	Boc Bo	Na Coc	Tay
	Nhan Mon	Vi Lap	Hmong, Tay
	Thanh Van	Na Kham	Tay
	Thanh Van	Pa Lai	Tay
Lao Cai	Lung Khau Nhin	Sin Lung Chai	Hmong, Nung
	Lung Khau Nhin	Lung Khau Nhin 2	Hmong, Nung
	Bao Nhai	Nam Chi Ngoai	Hmong, Tay

Source: Fieldwork, 2019

The number of villages in this study situated in Lao Cai province was less than in Bac Kan as research followed the data collection theory of saturation (Lewis-Beck, Bryman, and Liao, 2004). To identify respondents at each location, village elders and/or heads were consulted to obtain a list of households engaged in smaller-scale pig production. From these lists, 5 to 10 producers at each study site were invited to participate in a group discussion at the cultural house of the village. Participants included both men and women. A total of 8 group discussions were organized across both provinces, including 5 in Bac Kan and 3 in Lao Cai, with a total of 40

women and 20 men participating. The research team also visited and observed the production situation in just over half of the households.

Additionally, 5 in-depth interviews with women and 2 with men were conducted in Bac Kan, and 3 in-depth interviews with women and 3 with men were conducted in Lao Cai. Interview participants were randomly selected from small-scale pork producers who self-identified as being highly affected by the African swine fever pandemic. Interviews allowed for more nuanced questions on sensitive and/or personal matters not suitable for group discussions. This permitted respondents to share stories of a private nature, including those related to economic loss and mental struggle. Finally, participant observation, including assisting villagers in burying their culled pigs, was used in this study to have informal conversations and gain first-hand experience of the impacts of the pandemic.

Vulnerability assessment

This study adopted a participatory approach to vulnerability assessment. Based on the work of Schroter, Polsky, and Patt (2005), this study began by defining the areas of geographic focus, including the relevant communities and stakeholders. Thus, the scale of the investigation was delimited by drawing artificial boundaries around the coupled human-environment systems of interest. In this context, it was essential to develop the stakeholders' knowledge of their own communities, the government services they valued, and the drivers of vulnerability. The vulnerability of the human-environment systems was evaluated using ethnographic methods (e.g., focus group discussions, semi-structured interviews, and participant observation).

Given the study's focus on social vulnerability processes and adaptive capacity building, qualitative research methods were considered more appropriate than quantitative methods (Denzin and Lincoln, 2003; O'Leary, 2010). A range of techniques was employed to generate information, triangulate insights, and construct an accurate and detailed picture of the dynamics of vulnerability at the household, village, and commune levels. Rather than focusing only on official reports and statistics, this article explores how local smaller-scale producers conceptualized, experienced, and reacted to the ASF pandemic.

Within a short period in the field, collected data began to reveal the emergence of several major themes. Section 4 is divided into sections based on the temporal relation of the study site to the development of the ASF pandemic and is centred on vulnerability and resilience. Due to the small population size of many rural villages in the NMR, the names and specifics of individual villages have been generalized to maintain the respondents' anonymity. Identification of ethnicity is included only when relevant to the analysis.

Results

Before the arrival of ASF at the study sites

The production of pork has long been vital to rural EM communities and generates the main source of income for many households (Fieldwork, 2019). The average annual income from pig production accounted for 30-70% of the total income of all surveyed families (with the remainder largely derived from off-farm labour). Those with a higher total percentage were Nung and Tay people, who often live at lower altitudes and raise more pigs.

Depending on the community, the pigs raised were hybrid or heritage breeds alone or in combination, although Hmong respondents residing at the highest elevations kept a smaller number of heritage and no hybrid breeds. Many communities, regardless of ethnicity, raised only heritage pigs. At each of the study sites, women, in particular, benefited in various ways. Pigs constitute a form of investment, and the pork from these pigs provided local women with agency in how production was managed and the dominant voice in deciding where profits were spent. Female respondents across all study sites mentioned that their pig farming helped them fund communal celebrations, buy agricultural equipment and agrichemicals, cover family expenses and

school fees, and supply nutrition. Many also expressed that it provided them with an enhanced sense of purpose and worth to themselves, their families, and their communities.

It is important to note that pig farming is occasionally integrated with a side business of alcohol production. While the price of corn or rice is low, it can be fermented into alcohol and sold for high profits locally. The dregs of this production, combined with available rice bran and/or banana stems, provide a nutritious and inexpensive feed for pigs. The nutrient-rich manure from the pigs can be spread back on the fields. As with the profits earned from selling pork, in many cases the women dictated how the money from the sale of alcohol was utilized.

Overwhelmingly, before the outbreak of ASF in their communities, smaller-scale pig producers expressed little fear of it influencing their livelihoods. Generally, when respondents first heard of an outbreak, they assumed it 'was some disease far off in Africa'. Even when ASF was found in villages less than 100 km away, many noted that they remained confident that the problem would not affect them. Some villages took proactive measures, slaughtered all adult hogs before ASF was detected, and then shared the meat among households in the village. Such foresight was rare, government warnings went unheard or unheeded, and it was only when the disease was directly affecting the animals of their neighbours that smaller-scale producers really grasped the extent of the problem.

As ASF spread closer to the study sites and it became obvious to the producers that their animals would be affected, there were several immediate responses. First, if a freezer was available, a pig would be slaughtered and frozen for household consumption rather than for the market. More commonly, smaller-scale producers slaughtered their pigs and attempted to sell them at greatly reduced prices (i.e., 40,000 VND/kg or US$1.75/kg down from US$3.50 before the outbreak of ASF). Producers knew that once an ASF case was confirmed in their village, their pork would have no value.

Finally, some village-level leaders (e.g., village heads, party secretaries, youth union secretaries, and representatives from women's union branches and veteran's associations) forbade the purchasing of pork from outside the village, in an attempt to prevent the introduction of ASF through contaminated meat. This beneficially (and perhaps serendipitously) also secured a market for pork produced locally. It is important to note that most of these leaders were elected by their communities to represent them and provide a bridge with the commune government. As such, community members were very responsive initially to the regulations of their village leaders. With this way of self-protection, for example, some villages around Thanh Van commune were found to have limited or slowed the spread of ASF in their communities (Fieldwork, 2019).

During the ASF pandemic

Responses by the government

Once ASF was confirmed in a community, support from various levels of government was distributed in multiple forms. Most of this flowed down through a hierarchical bureaucratic structure in response to information transmitted bottom-up from the village/commune levels. For example, ongoing statistical data on swine mortality and location in affected villages were updated daily by the commune veterinary staff and reported twice a week to the commune People's Committee, and then to the district People's Committee. When a new outbreak occurred, however, it was relayed immediately to district authorities. Twice a week, the district People's Committee and the Department of Agriculture reported on the ASF situation in their district along the chain up to the provincial government.

The provincial Departments of Agriculture and Rural Development provided documents to guide subordi-

nates in disease prevention and control. These included instructions relevant to still unaffected communities such as lime sprinkling routines.[1] For locations where an outbreak was occurring, as an example, instructions were transmitted from the provincial level down to district People's Committees on how to handle diseased pigs and spray disinfectants. All of this information was in turn shared with commune officials to operationalize everything at the village and household levels.

As an example of this process, the provincial People's Committees regulated the actual culling and disposal of infected pigs. Pigs found to be sick were culled in the community but buried or cremated away from residential areas and water sources (See Figures 2 and 3). This burial process was closely monitored by rapid response teams formed at the commune level to prevent sick pigs from being slaughtered and sold for food (Fieldwork, 2019). Following the guidance of the district People's Committees, communes also organized security forces to staff quarantine checkpoint gates 24/7, to control the transportation of pigs. During the pandemic, it was forbidden to transport pigs from an infected area (either live or slaughtered), to avert the spread of ASF. In practice, however, many of these checkpoint gates were found simply left open and unguarded, especially due to cost or when discipline slacked during non-peak ASF periods.

According to respondents, the quality of the initial response from the government was mixed. While they tended to trust the village leadership (whom they knew), respondents were more critical of advice originating from higher levels within the bureaucracy. Most farmers across study sites also expressed considerable confusion when first hearing about the outbreak. They were not aware of whether the disease was already present in or would spread to their village, how to identify symptoms in their animals, and what the effects might be on their livelihoods. They felt that this type of information should have been made more readily available. Respondents also voiced scepticism and trepidation when quick response teams arrived to spray disinfectant around their barn areas and homes. Many believed that these people likely carried the very disease they were sent to prevent.

Figure 2: Culled pigs collected in Boc Bo Commune

Source: Fieldwork, 2019

[1] According to the information provided by the staff at one district Department of Agriculture, lime powder is used as a disinfectant that limits the spread of ASF.

Figure 3: The burial of culled pigs in Boc Bo Commune

Source: Fieldwork, 2019

The human dimension

Perhaps the most commonly held view among respondents was the disbelief that ASF had arrived in their village. When the pigs of one villager tested positive, neighbours bought lime and frantically began to spray disinfectant in and around their own homes. Others became preoccupied with thoughts about when their pigs would also be affected. Others took no action at all. As one San Chi female respondent explained:

> *When I saw information about ASF on the news, there were a lot of dead pigs that needed to be buried. I was sure it wouldn't happen to me, but it did. I did nothing to prepare for it.*

One ethnic Tay female respondent explained she lost 4 kg during the time of the pandemic.

> *Over a period of two months, [she said,] I could neither eat nor sleep. Every time the radio/TV announced something about the pandemic, I became more worried and overwhelmed… African swine fever is hard to prevent and we don't know when it will occur or end.*

One ethnic Tay male farmer commented:

> *The dead pigs made me very sad. I skipped meals and cried like a child. I was really shocked, and lost 40 million VND [around US$1,750 – a considerable amount of money] because of African swine fever.*

Although ASF does not spread directly to humans, its increase throughout the NMR has also led to a human health crisis. Local villagers and smaller-scale producers explained they suffered from anxiety and

changes in diet. Residents near affected sites expressed feelings of impending loss. Smaller-scale producers were found to obsessively watch their pigs all day for signs of disease, and many admitted privately to suffering from bouts of insomnia and panic attacks. As a female respondent noted: *'Now we don't know when the outbreak will stop or if we can re-invest in raising pigs'*. In short, ASF brought mental anguish and depression as respondents felt vulnerable and saw their future as uncertain.

The aftermath: Finding adaptive capacity

What makes ASF different?

Multiple respondents noted that ASF affected them differently to other disasters. As one explained,

> *While flash flooding may bury one rice paddy, other crops can compensate for the loss, and I can still cultivate the land again the following growing season.*

Cropland in the NMR is also small and geographically dispersed, so excessive flooding in one plot would not affect the farmer's other plots. Furthermore, communities in the NMR of Vietnam are closely knit and tied by larger kinship networks. The loss of a failed crop of one farmer can be eased via informal assistance and aid through their extended familial, ethnic, and other social networks (Fieldwork, 2019). While this provides resilience in the form of income and/or nutrition in a time of a disaster, the ASF pandemic proved more complex. Pigs from the entire village, commune, and region were uniformly gone. ASF was therefore experienced by respondents as considerably more frightening and devastating. With the death of their animals, farmers lose investment and earning potential, sink further into debt, and are unsure if they will ever be able to raise pigs again.

Other forms of animal husbandry

One common suggestion of the government was for affected producers to replace pig production with poultry or cattle. This proved unrealistic for many reasons. Culturally, while households in this study consumed pork 4-7 times per week, chicken and beef were eaten less than once. Respondents mentioned that this local dietary preference for pork meant it was easier to sell. Overall, however, their decision not to invest in non-swine animal husbandry operations was based on more complicated practicalities.

Respondents in this study were EM and typically used IK in their production. Many had been breeding pigs since childhood and this knowledge did not transfer to other animal husbandry operations. The timing, skills, and infrastructure required to raise poultry or cattle also bear no relation to those of pigs. For example, pens for pigs tend to be simple and the animals do not require additional heating in winter (unlike chicken coops which require a larger area and need to be built sturdier in a way that maintains warmth to protect the more cold-sensitive birds). Some respondents mentioned that they had considered raising cattle, only to find that the high initial investment costs proved insurmountable. Similar complaints were expressed by respondents who contemplated transitioning to ducks or horses.

Most respondents felt that raising unfamiliar animals was riskier than pigs and that their lack of experience would lead to the new livestock being more susceptible to disease and death. This potential loss of more animals, they argued, would further complicate their tenuous economic situation. Furthermore, pig production systems can support the fermentation of alcohol to sell for additional profits, something not applicable to chicken or cattle. Finally, other value-added products produced from pork in some villages before the pandemic (e.g., sausages), require a different array of technology and equipment when using chicken. As an example, commonly used equipment that removes bones from pork is too coarse to remove finer chicken bones. With a lack of viable options, respondents across study sites were very confused, scared, and uncertain as to what to do next.

Policies of compensation

Financial compensation details for culled animals were formalized in late June 2019 in a document entitled Decision 793, and the funds promised were US$1.10/kg for piglets and US$1.30/kg for sows and boars (Nguyen, 2019). Respondents remarked that the value was far lower than that achievable at the market for a healthy pig. Some respondents cynically noted they had yet to receive compensation for pigs culled six months earlier, which further contributed to their distrust in authority.

To limit future ASF outbreaks, previously affected villages were required to wait a mandatory full year before being allowed to raise pigs again. Respondents also expressed fear of restarting pig production, as they were uncertain as to whether or when ASF would return. As a result, the majority of financial compensation that was received from the government was found to have been used on activities unrelated to agriculture or animal husbandry. Respondents spent the money on things immediately essential to daily life including food, clothing, and fuel. In other cases, especially in ethnic Tay communities, the compensation money was used to pay bank loans and reimburse feed debts. After a couple of months, the money was spent and there was nothing tangible in place to generate more income. Without other viable alternatives, a few months following an outbreak, some farmers were found illegally raising pigs again. In these cases, they gambled on not being caught and on their pigs remaining uninfected.

Changing economic realities

Before ASF, residents of villages in this study had grown accustomed to relying on the income from small-scale pork production. It provided a form of self-employment that allowed for time and proximity to raise children and reside locally, without requiring traveling to manual labour jobs in distant industrial zones. In particular, EM women had come to rely on this income to support themselves, their families, and their communities. ASF changed this in dramatic ways. A Tay female farmer explained,

> *Now I have no money to pay for my children's school fees. Two pregnant sows which were ready to give birth perished due to African swine fever. I had expected them to give birth to about 20 piglets. I would have raised 10 and sold 10, earning about 8 million VND [US$345] to pay for my children's schooling. Now I have nothing, no money, no piglets, and also no mother pig. I don't know when I can raise pigs again.*

A Nung male farmer added,

> *Pigs were the main economy in our village and accounted for 70% of the total income of my family. Now that the pigs are dead, we have given up all our plans. Normally, we worked in the field to get rice and corn to raise pigs. But the pigs are dead, and I don't know where to sell the rice and corn. We have no idea what to do to earn money.*

Finally, the destruction of small-scale pig production is changing the dynamics of family and village life. Group discussions revealed significant losses in family income, and households going deeper into debt not only to banks but also to friends and extended family. Higher poverty rates [2] are forcing more out-migration of working-age males and youth to urban areas and abroad (e.g., China[3]) to secure new forms of income (Fieldwork, 2019).

[2] The word "poverty" in this article is defined in two overlapping ways. First, respondents explained their endogenous conceptualizations of poverty and their situation resulting from African swine fever. Second, on 27 January 2021, the Vietnamese government issued Decree No. 27/2021/ND-CP, stipulating the poverty line for the period of 2021-2025. This guideline defines poverty as: 1) earning an average monthly income of less than VND 1.5 million (around $65), and 2) lacking three or more indicators from twelve listed basic social services.

[3] Note that the research of this study was conducted prior to the COVID-19 pandemic. Before COVID-19, there was a more regular migration of men over the northern border of Vietnam into China for unskilled labour jobs.

Discussion

Across the NMR, ASF quickly rendered vulnerable people even more vulnerable. The death of pigs resulted in a substantial loss of both income and nutrition, especially as so many livelihoods are intrinsically interconnected to animal husbandry. Smaller-scale pig farming, such as keeping a few pigs at home, may not seem like a substantial investment, but it kept many from poverty. While the Vietnamese government has promised compensation for animals culled, farmers consider that their pigs are undervalued, and communities expressed insecurity as to when or even if the money would arrive. As studies of other ethnic and racial minorities globally have found (Quinn, 2008; Hutchins et al., 2009), cultural barriers and a pronounced lack of trust in government are also limiting the exchange of information between stakeholders. This is resulting in resistance to state-sponsored support programmes and ultimately increasing vulnerability at the study sites.

While no clear relationship was found between the different methods of pig husbandry and the adaptive capacity of specific ethnic groups when encountering ASF, this study uncovered considerable variation across ethnic groups as to the level of impact of ASF. In both Bac Kan and Lao Cai provinces, the Nung and Tay people residing at lower elevations lost the greatest number of animals due to the pandemic. This correlates directly to fact of them breeding more pigs. Overall, when pigs die or are culled, most families across ethnic groups were found to be left with greatly reduced income, little money to cover daily expenses, increased food costs, and mounting debt. Women with younger children cannot easily seek off-farm work, and those of any gender over the age of 40 also find it difficult to secure employment elsewhere. Many communities are also only marginally connected to the opportunities available in more urban settings at lower elevations. A combination of geographic isolation, low levels of formal education, a distrust of the government, and higher rates of illiteracy also mean that small-scale farmers tended to be more passive instead of proactively contacting officials when issues arise or reimbursement for their culled animals is sought (Fieldwork, 2019).

While broader generalizations of this nature are accurate, they fail to adequately depict the necessary complexity of how ASF uniquely affects people differently within the region. For example, ethnic Tay families raised the most pigs and some had developed their operations along slightly larger business models. Bank loans were taken to expand operations and purchase industrial feed. These families consequently lost more due to ASF. However, Tay ethnic people reside at lower elevations and tend to be better integrated into Kinh society. This allowed them to rely more on social networks and existing infrastructure to more easily replace their culled animals with those sourced from unaffected lowland communities. Tay people were also more likely to be able to counterbalance losses by securing off-farm employment. Thus, ethnic Tay people were found to be less or at least differently vulnerable than other groups.

By contrast, Hmong communities residing at the highest elevations enjoy the least social and economic connections to lowland communities and are the most isolated and impoverished. Yet, while they did also lose pigs due to ASF, they were less affected by the pandemic as culturally they tend more to have water buffalo and cattle. Under typical conditions of unequal power structures and varying social safety nets (Adger, 2006; Son and Kingsbury, 2020), this highlights the importance of deconstructing the relationship between geography, marginalization, ethnicity, and culture when scripting policy. It also further underscores the complex and situation-specific components of social vulnerability, and the lack of uniformity in adaptive capacity across and within different groups of people in relatively small spaces.

Another important finding of this study relates to the continued deterioration in the genetic diversity of heritage pig breeds in the NMR. This further exacerbates a disconcerting trend of decline already noticed before the ASF pandemic (Huyen et al., 2005; Xuan et al., 2006). The culling of large numbers of animals has furthermore removed considerable sources of breeding stock to repopulate the region. In turn, this will greatly undermine the relevancy and applicability of IK systems of farming that have provided valuable forms

of resiliency to minority populations over multiple generations. It also means that these more sustainable production systems have possibly been terminally disrupted. In short, ASF has resulted in a serious cultural and environmental loss not only to the NMR but also to Vietnam and beyond. This directly evidences the fragility of many forms of adaptive capacity in marginalized communities.

Overall, the majority of financial compensation that was distributed to replace culled animals was found to have been used on activities unrelated to agriculture or animal husbandry. Payments have not resulted in sustainable and longer-term options to generate income. In this case, passive welfare has decreased self-reliance and proven more harmful than supportive. As such, rather than simplistic compensation pay-out schemes, the government needs to organize more targeted investments and aid programmes that seek to reduce social vulnerability to enhance capacity.

At a time when affected communities would benefit from state support, a pronounced disconnect between aim, activity, and outcome limited effective response. Expanding on Cutter et al. (2012), degrees of social vulnerability significantly determine communities' responses, while directly providing clues to policymakers on appropriate actions to lessen vulnerability. In the case of the NMR, this would imply that policies target specific communities in the case of disasters or pandemics, and focus on those poorer households with less land or available labour. It also argues for a more active engagement and the development of more open lines of communication between policymakers and communities, to build trust and better conceptualize social protection.

This study also afforded valuable insights into how respondents perceived ASF to have differed from other environmental or climate-induced disasters. If there were a large flood, for example, planted vegetables and grains would be lost. However, this loss would only be for one season and other crops could be used to compensate for the caloric and monetary lapse. Supportive social, ethnic, and extended family networks could also help fill the temporary void. This study found ASF to be considerably more threatening. Whole villages are being required to reshape economic livelihoods, and previously utilized cultural sources of response are proving partially ineffective. How and under what conditions these new dynamics will play out, and how EM populations will circumvent them, will shape the future of the region.

Finally, the results of this study directly relate to the role of women in agricultural and community development, as well as the importance of gender in adaptive capacity building. The small-scale production of pork was culturally accepted in EM communities as a meaningful social and economic contribution of women. Female respondents explained that they were the decision-makers on how these earnings would be spent. To this, the interconnected side-business of alcohol production added valuable income. Following the culling of pigs, many female respondents expressed feelings of guilt at not being able to further invest in their children's education or the family's welfare. Questions must also be asked about the fate of family structures and village communities with many working-aged men and youth now forced to seek distant wage-earning jobs. Women have moreover added agricultural fields previously cropped by men to their unpaid domestic duties. Gender inequalities across ethnic minority groups will likely continue to worsen, as many families devote their scarce resources to educating sons, whereas daughters are kept at home to provide domestic labour. This highlights the importance of reducing inequality in order to reduce vulnerability, and further illustrates the structural factors that marginalize some members of society and keep them vulnerable. It also offers numerous points to inform direct policy intervention in support of EM communities in the NMR.

Conclusions

This article was centred on vulnerability, resilience, and adaptive capacity during an ongoing crisis in a marginalized region of the Global South. Through case studies of small-scale pig producers in Bac Kan and Lao Cai provinces in the Northern Mountainous Region of Vietnam, it identified how the adaptive capacity of ethnic minority communities was severely reduced by African swine fever, with more far-reaching effects

than those of previous hazards. From this, the following overarching developments can be predicted. First, a further deterioration in the genetic diversity of heritage pig breeds will continue. Questions as to the future of smaller-scale pig production are pressing, and this will have pronounced effects on those EM communities that most rely on pigs for food, income, cultural traditions, and resiliency. The ASF pandemic will likely become endemic, and smaller-scale producers cannot afford the biosecurity measures necessary to prevent further outbreaks. Second, EM women in particular will be further negatively affected by ASF. With childrearing traditionally considered the role of the women in the family, and with few opportunities for off-farm labour or training, pre-existing social strains will become greater. Family debt will increase. Those communities situated at higher altitudes and in more remote settings will face greater economic and emotional burdens. Third, with the lack of pork in the marketplace, Vietnam may be unable to supply the demand for pork through its domestic production. The predicted increase in price and its effects on consumers and future smaller-scale producers remain uncertain. What is certain, however, is that this void will be filled by imported and/or industrially-produced meat owned by those originating outside the EM communities of the NMR.

Overall, with interacting stressors, including poor infrastructure, geographic isolation, natural disasters, and climate change, now further exacerbated by ASF, the people of the NMR will face a more challenging future. Immediate and targeted policies that reduce these vulnerabilities by providing opportunities for agency and the building of adaptive capacity are essential. Increasing communication among all stakeholders is of paramount importance, as is the building of trust between stakeholders and government. Across many regions in the Global South, more informed policies based on supporting self-reliance guided by constituents, rather than simply distributing social welfare, would support communities in becoming more adaptive and responsive to environmentally-induced stress and change.

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Drivers and actions that determine the choice of young farmers in Costa Rica to stay on the family farm

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Victor RODRIGUEZ-LIZANO,[1] Mercedes MONTERO-VEGA[1] and Nicole SIBELET[2,3]

Abstract

Succession is essential for the existence and development of family farms and rural areas; however, the generalized aging of farmers is occurring worldwide. The main objective of this research is to analyse the motivations that determine young farmers' choice to remain on the family farm, and their relation to the Generational Integration Process. Traditionally, succession analysis focuses on how socioeconomic conditions influence the probability of a farm being successfully passed on to the following generation. Other approaches focus on the Generational Integration Process (GIP), which is the ability of distinct generations to relate as a family, with the goal of passing on the farm through specific actions involving the participation of both successors and incumbent. The field work was carried out in Zarcero, a horticultural canton in Costa Rica, where 20 semi-structured interviews were conducted with young famers (under the age of 35). Results indicate that the main reasons for staying on the family farm are related to self-management, a feeling of belonging, and family ties. This study generated a tentative framework to consistently analyse the Generational Integration Process and shows the complex nature of family farm succession by highlighting the multiple links between different motivations.

[1] Department of Agricultural Economics, University of Costa Rica, 11501-2060 San José, Costa Rica
[2] CIRAD, UMR INNOVATION, 34398 Montpellier, France
[3] INNOVATION, Univ Montpellier, CIRAD, INRA, Montpellier SupAgro, Montpellier, France

Corresponding author: Victor Rodriguez-Lizano, victorantonio.rodriguez@ucr.ac.cr

Bibliographical notes

Victor Rodriguez-Lizano has a background in Agricultural Economics from the University of Costa Rica. He worked from 2010 to 2012 in the development of rural communities in southern Costa Rica through local enterprises both productive and related to conservation areas. He studied a Master's degree in International Agribusiness and Rural Development at the University of Gottingen in Germany. From 2015 to the present he has worked at the Center for Research in Agricultural Economics and Agribusiness Development, conducting numerous investigations in conjunction with governmental Institutions in relation to rural development, which awakened his interest in mixed-methods approaches since the reality of rurality is quite complex. He has worked as an external advisor to the Inter-American Institute for Cooperation on Agriculture (IICA) on topics related to agricultural market analysis and the development of the bioeconomy in the Latin American region.

Mercedes Montero-Vega completed her PhD studies at the Tropical Agricultural Research and Higher Education Centre, where she focused on the inclusion of small pineapple producers in high value-added agro-chains in Costa Rica. She has worked as a professor at the University of Costa Rica in agricultural economic analysis and has participated in numerous research committees at undergraduate and postgraduate level. She has also worked as an external consultant on issues related to rural development and value chains for institutions such as IICA and FAO. She began her research with a quantitative conception and has gradually migrated to a more qualitative and integral approach due to her recent interest in aspects related to bioeconomics, social mobility in agriculture and food waste.

Nicole Sibelet graduated as an agricultural engineer and focuses her research on the sociological and ethnographic anthropology of rural regions related to forests and other agricultural production. From 1987 to early 1994 she collaborated with institutions related to rural development in France and other countries such as: Compagnie Française pour le Développement des Textiles (CFDT) (Magadascar), Centre pour le Développement de l'Artisanat de l'Industrie et de Commerce (New Caledonia) and the Ministère de la Coopération Française. From 1994 to the present, she has been a researcher at CIRAD where she teaches courses related to qualitative research methods applied to natural resource management. She has extensive experience in rural development, having worked in countries such as Costa Rica, Nepal, Magadascar, Comoros, New Caledonia and Mexico. She is currently a Fellow of the Rural Sociology Society and has published approximately 30 peer reviewed journal articles and book chapters.

Introduction

Most farms in the world are family owned (Corsi, 2004). Lowder et al. (2016) estimate that approximately 75% of agricultural land is held by family farmers. In Central America, family farming contributes to nearly 50% of rural employment (Salcedo and Guzmán, 2014), providing food security through a wide range of agricultural products. Succession is therefore essential for the existence and development of family farms and rural areas.

The exit of youth from rural areas has serious implications for both farms and food production. Emigration of rural youth can lead to cultural deterioration (Matte and Machado, 2017), especially through the loss of the farmer's specific knowledge (Bertoni and Cavicchioli, 2016a) when successors choose to discontinue farming. Other research has found that the farms which do not have a current or potential successor are more likely to enter a period of stagnation or decline in the years prior to the incumbent farmer's retirement (Inwood and Sharp, 2012; Wheeler et al., 2012). Likewise, older farmers usually tend to have less of an inclination to adopt new technologies or sustainable farming schemes (Dabkiene, 2015). This situation makes the involvement of young farmers fundamental in the adaptation of farms to the current climatic, technological and market demands.

Two main approaches to analyse farm succession can be distinguished in the literature. One approach focuses on the correlation of socioeconomic variables to succession, in which most publications use correlation analysis between socioeconomic variables and the succession status of the farm. Most of them focus on family, farm and farmer variables (Bertoni and Cavicchioli, 2016b; Suess-Reyes and Fuetsch, 2016), while others, to a lesser extent, have examined the topic by adding context variables (Creighton et al., 2016; Joosse and Grubbström, 2017). The other approach focuses on the description of the succession process and its stages (Carolan, 2018; Errington, 1998), in order to understand both succession and the strategies farmers employ so that their relatives can either stay on the farm or leave it (Conway et al., 2017; Fischer and Burton, 2014; Inwood and Sharp, 2012). In this approach there are studies suggesting that the Generational Integration Process (GIP) is the principal determinant in family farm succession (Perrachón, 2016: 24). GIP refers to the ability of distinct generations to relate as a family with the goal of passing on the farm through specific actions that involve the participation of both successor and incumbent.

The generalized aging of farmers is occurring in Costa Rica. The same phenomenon is found in Europe, where only 11% of farmers are under the age of 40 (Eurostat, 2016) and in Africa, where there is evidence that younger generations are increasingly reluctant to continue working on the family land (Boafo, 2019). In Costa Rica, the average farmer is 53.9 years old, and 22.5% of farmers are older than 65 (INEC, 2015). According to Costa Rican legislation, senior citizenship is obtained from the age of 65. This situation is a result of few young people entering the sector and incumbent farmers continuing to work into old age.
The main objective of this research is to analyse the motivations that determine young farmers' choice to stay on the family farm. The following research question was asked: based on an analysis of the GIP actions identified, what are the main motivations for young farmers to become successors on the family farm?

Theoretical framework

Extensive research has been conducted to identify the relationship between socioeconomic variables and farm succession, where succession is the product of a combination of convenient factors that are usually analysed using discrete modelling. Some studies show that farms with more capital have a better level of succession (Bertoni and Cavicchioli, 2016a; Nuthall and Old, 2017); others show that more specialized farms (Hennessy and Rehman, 2007; Wolf, 2003) or those with non-conventional production are correlated to better levels of succession (Corsi, 2009; Kerbler, 2012); and yet other studies suggest that being male (Cavicchioli et al., 2015; Kerbler, 2008) and coming from a traditional farming family (Mann, 2007) are characteristics positively correlated to succession scenarios. In addition to this, the literature shows that successors' education can play either a favourable role if their area of study is related to agriculture, or a negative role if it is not (Glauben et

al., 2009). Whereas all of this research has contributed to a better understanding of farm succession, there are other factors in addition to the traditional socioeconomic variables that could provide valuable information in this respect.

The literature suggests that in addition to socioeconomic variables, the incumbent farmer influences succession through concrete actions oriented to the heirs' introduction to farm management, which over time will generate a successor (Dirven, 2002; Perrachón, 2016). Díaz-Méndez (1999) found that children's inclusion in social and work-related activities is determined by the action-strategies taken by their parents, and that in rural areas these are often related to the continuity of the farm on which the entire family depends. These authors suggest that succession is a process rather than a single moment's decision. Dirven (2002:25) defines generational succession in agriculture as a process, during the farmer's lifetime or not, of transferring the use of the patrimony and the management of the farming operations to the next generation. Likewise, Cabrera (1998) mentions that succession is a process that begins even before the successors take over management of the farm.

Perrachón (2016) argues that succession is mainly based on the GIP, which refers to the ability of distinct generations to relate as a family with the goal of passing on the farm. If the integration process is successful, the farm will be more likely to have a successor. Key actions that make up the GIP are:

Communication: communication between incumbent and successor should be based on clearly stating the intention of succession from both sides. Clear communication between incumbent and successor increases the likelihood of effective succession (Dyck et al., 2002). The need for communication between incumbent and successor is a fundamental part of the process as it leads to consistency between the expectations of both generations regarding the succession and the strategy to be adopted. To achieve this congruence, the children will have to accept certain policies of the parents even if they do not fully agree with them, and, in turn, the parents will have to make an effort to adapt to the successor's needs (Cabrera, 1998).

Decision-making: incorporating the successor into farm decision-making. Uchiyama et al. (2008) state that the lack of incorporation of successors into farm decision-making leads to future farmers with little management capacity and puts the continuity of the farm at risk. Gallo and Peluso (2013) argue that one of the factors that most influences the children's decision to leave is the lack of participation in decision-making on the farm.

Payment: giving compensation for work done on the farm. When this remuneration does not occur, it is more difficult for the successor to formally establish themself on the farm because the employment relationship has been maintained informally (Morais et al., 2017). Successors who have been paid are usually the ones who stay on the farm once the incumbent is ready to yield control of the farm (Neiman, 2013). Likewise, paying children from an early age for their work on the farm can encourage them to stay, not only for economic reasons but also for psychological ones (May et al., 2019).

Supporting education: allowing sons/daughters to access formal education. Plana-Farran and Gallizo (2021) indicate that formal education is a factor that can create synergies with innovation, which ultimately favours succession. In this case, there is usually financial support for the successor to pursue their studies.

Land: allowing the heir to independently manage a segment of the farm. This action constitutes a proxy for training the successor on a practical basis. The presence of this action is necessary for the transfer of knowledge and at the same time is a key determinant of agricultural succession (Carolan, 2018). Using this action, the incumbent checks for what Shepherd and Zacharakis (2000) call "performance requirements". The term refers to the future leader's quality of output in specified areas, and to whether that output matches or exceeds certain acceptable levels or benchmarks in order to obtain management control.

Planning: this refers to an incumbent's pre-planned roadmap for farm succession. Succession should not be

seen as a single event but as a carefully planned process that takes place over time (Kirby and Lee, 1996). Bjuggren and Sund (2001) argue that good succession is usually planned well in advanced, prior to the younger generation being of age to assume control of the farm. Having an action plan helps the incumbent farmer take explicit or tacit measures towards succession, in which identifying an heir is usually the first step.

Each of the GIP actions affects the probability of family farm succession through a complex network of relationships that triggers different motivations regarding the decision to continue working on the farm or to leave it. Morais, Binotto and Borges (2017) argue that self-management characteristics such as autonomy in decision making, financial independence, and access to a healthy diet are possible motivations for young farmers to take over the family farm. These authors also suggested that family ties and having family members such as their father, mother, brother, and other relatives living in rural areas, as well as friends and labour unions (e.g. cooperatives), are important factors determining the successor's motivation. In addition, Plana-Farran and Gallizo (2021) show that the ability to take over the farm owing to empirical/formal knowledge and an emotional inclination to continue the family legacy are key motivations among young farmers to maintain the family farm. In this sense, family ties are usually motivations behind farm succession.

Material and methods

The data was collected from Zarcero, a horticultural canton located 67 km northwest of San José, the capital of Costa Rica. The typical Zarcero farm is small (less than five hectares) and family-run (INEC, 2015). Our initial database was provided by the National Ministry of Agriculture and Livestock (MAG), from which we selected young farmers. We considered farmers younger than 35 years old since national institutions use this cut-off age for considering people as young adults (CPJ, 2002).

Processing data from young farmers

INEC (2015) data indicated that there are 28 young farmers in Zarcero. We visited 20 of these farms during our fieldwork. These farmers were already in charge of the family farm or were managing the farm alongside their father and/or siblings.

The qualitative analysis was carried out with results obtained from semi-structured interviews based on the methodology established by Sibelet et al. (2013). The interview had two main sections. The first one aimed to find out how the young farmers experienced each of the GIP actions from a young age until they started managing the farm. The second section was designed to establish why young farmers stayed on the farm.

We conducted three analyses. The first was an in-depth analysis of how each GIP action was experienced by young farmers. The second, a cross-sectional analysis, looked at how many of the six GIP actions were present in each succession process. The third was an analysis of the main motivations for young farmers to continue working on the farm, complemented by a discourse analysis of each young farmer to identify the recurring motives for staying on the farm.

The aforementioned analysis led us to cluster the recurring motives according to affinity and to show the relationship between them, thus achieving a better understanding of how GIP actions are related to succession.

Results

Analysis of the actions that construct the GIP

For younger farmers, the median farm size is 3.5 ha, six of the farms (30%) are organic, 17 of them (85%) do not obtain value added products from their crops, and 18 (90%) grow two or more kinds of crops. The farmers' average age is 29 and the average time working on the farm is 16 years, which indicates that on

average, they started working when they were 13 years old. Seven farmers (35%) continued studying beyond high school. Those who studied at a university, whether they completed their degree or not, stopped working on the farm while they were studying. The actions related to the young farmers' GIP are described below:

Communication

Based on the young farmers' answers, three classifications of this variable were created:

Positive (+): the older farmer clearly communicated to the young farmer that he wanted him to be the successor on the farm

Neutral (o): the young farmer's father supported any decision that his son would take, whether that meant staying on the farm or leaving

Negative (-): the older farmer clearly expressed that he did not want his son to continue working on the farm.

Most cases (70%) fell into the second category: the young farmer's father supported his son's decision either way. As A11 stated: 'My father told us if we wanted to work, here you have enough to work with, and if you want to study and leave, I'll help you out'. This farmer was the youngest of three brothers. There are other cases where there was a lack of explicit communication, but the successor intuitively knew the incumbent farmer (their father) would like them to stay on the farm. For example, farmer A12 added:

> *We haven't actually sat down to talk about it, but I felt that he [his father] hoped we would continue managing the farm. When I told him I wanted to continue working on the farm and build my house here (on the farm) he was very happy. I think that yeah, he has always wanted me to continue the farm.*

This type of tacit communication, where the successor simply knows that the older farmer, in this case their father, desires the continuity of the farm, was discovered by Fischer and Burton (2014) in their study on understanding generational succession through Socially Constructed Endogenous Cycles. In this case, this kind of tacit communication has a positive outcome.

In four cases (20%), the young farmers mentioned that their fathers openly incentivized them to stay on the farm, as farmer A5 mentioned:

> *For me to study agronomy was a dream for my father because he always wanted to study but he didn't have the opportunity. When the time came for me to decide what to study and I told him I wanted to study agronomy, he was really happy. Then when I was finishing college he asked me if I could continue working on the farm.*

In only two cases (10%) fathers encouraged their children to choose another area of work besides agriculture. Farmer A20 mentioned:

> *when I was finishing high school, he always told me "go on and study because we don't know what will happen with agriculture.*

Decision-making

Complete autonomy in decision-making on the farm begins, on average, at age 21. Among the successors analysed, the youngest age at which they began to be an autonomous decision-maker on the farm was 17 and the oldest was 25. Evolution in decision-making is a recurring phenomenon. In the case of 13 young farmers (65%), their fathers assigned them simple tasks; however, over time the incumbent farmer (the father) granted them more important tasks, such as marketing products, choosing what crops to plant, and even buying and selling land. Related to this, farmer A10 said:

> *It makes sense that in the beginning I was just another of my father's hired hands, later when I was a little older, about 15 or 16, my father let me be more in charge, so I made decisions that I knew pretty well that my*

father, who was still in charge, was going to like.

Likewise, farmer A13 mentioned that when they first started working together, he simply obeyed what his father said, but over time this started to change:

At first, I did only what he said, of course, then I got more experience, but really he was the one who managed the farm. Shortly afterwards, I was the one making decisions about where was the best place to sell our products and also which seeds to sow.

These experiences show the importance that evolution in decision-making plays in the process of succession. Furthermore, it is coherent with the concept of the 'farm ladder' coined by Errington (1998) and analysed by Joosse and Grubbström (2017). In other cases, farm management is shared among siblings, allowing younger siblings to be incorporated into the decision-making process, which is facilitated by the older siblings as well as by the father. Farmer A18 mentioned:

The land we bought not long ago, yes, they took me into account, as a kind of business partner'.

In this case (farmer A18) the younger son was fully integrated into the farm management and his opinion counted in decisions that were very important for the farm, such as the purchase of land. Such an increase in the importance of decisions entrusted to successors is one of the key factors identified by Fischer and Burton (2014). Moreover, the faster a young farmer climbs the 'farm ladder', the sooner the farm will benefit from positive succession (Lobley, 2010). Every young farmer in our study who did not experience either of the following situations progressively evolved in the process of farm decision making.

Complete disagreement between the incumbent farmer and the successor about the direction the farm should take. Therefore, the successor acquired no autonomy whatsoever at first and simply followed the incumbent famer's (their father's) orders. They however became independent sooner, and were able to take over part of the farm. An example of this situation is farmer A12:

I left because I was totally against what they were doing, they continued farming conventionally and I went the organic route.

The incumbent farmer gave the successor the part of the farm that had been allocated to him (approximately 3.5 hectares) to continue his organic production independently. The father continued farming conventionally with another son on the rest of the family farm.

Sudden death/disability of the father. Farmer A9 mentioned:

When I was about 14 or 15, my father fell and ruptured his meniscus and ligaments so basically I had to take charge because for about 5 or 6 months my father couldn't do any kind of work in the field. He had to have surgery but because of this situation he gave the responsibility to me and basically from then on, I was in charge.

In all cases, as Inwood (2013) mentions, raising their son/daughter to do farm work from an early age was a key factor.

Payment

In 17 cases (85%) young farmers were paid by their parents for working on the farm, when the farm was still run by the father. Three payment levels were observed:

Incentive: a small amount of money, generally given on the weekend. This can be considered an allowance, but it was given on condition that the farm work was done. This work could even be sporadic. In this case, farmer

A17 mentioned: *'when I was a kid, I got a little bit of spending money.'*

Hourly payment or a fixed salary: this type of payment was given when there was more work. In this case, the incumbent farmer already considered the support of the successor as essential to reach the goals planned for the farm.

Division of profits/losses: this is the highest level of recognition for work done and was given when the farm was co-managed. It implied that the young farmer had reached the highest level of involvement in the farm, and therefore that he/she shared both the profits and the losses, should there be any.

Payment is an evolving process rather than a static one. Results indicate that four farmers experienced some kind of progressive payment process. For example, farmer A16 went from being paid hourly to receiving his share of the profits:

> *Well, as I obviously had a certain amount of knowledge about farming, I was paid by the hour for the work, but now we share the profits. (Farmer A16)*

In the case of farmer A5, he went from an incentive to an hourly wage:

> *He gave us a little bit of money on the weekend and then we got to the point where he paid us by the hour.*

In this case, it went from an incentive to an hourly wage.

Farmer A18 distinguished between the way the hired hands were paid (by the hour) and his own payment, which suggests that an hourly wage could be considered less important than having a regular salary.

> *Yes, they paid me, not much, but it helped...and as they saw that I started doing more, things changed… (Today) I have a salary; we all have a minimum salary. The hired hands are paid by the hour.*

Today this farmer co-manages the farm with his siblings. An evolution in payment was evidenced: in the beginning the farmer received only an incentive, but this progressed to a salary as he was involved more in important decision-making. Farmer A10 represents the three levels of payment. This young farmer received incentive payments in the early years of life, later he received a fixed salary, and finally he began to share the profits/losses with his father. In this regard, A10 mentioned:

> *When I was a boy, my father gave me one dollar every Saturday, it was a lot of money for me. From that age I began to be interested in agriculture. Then as a teenager, when I helped my father, he gave me, I don't know $10 or $20, but to save for high school, and things like that. Later on, when I left for university, I stopped working on the farm for a while, but then, when I returned to the farm, we started making decisions together about what to plant and what not to. That's when things really changed because it was like I was already in charge and my father said to me 'all right, now a percentage of the profits are for you' or 'let's go 50/50'. Later, my father left horticulture farming to raise cattle.*

In this case, the psychological impact of having an economic incentive which is given to the successor when he is young, in exchange for working on the farm, is recognized. This young farmer mentioned that when he started receiving this incentive, he became interested in agriculture. This result is in line with the findings of May et al. (2019), where paying children for their work on the farm from an early age can be an incentive for them to stay, not only for economic reasons but also for psychological ones.

Financial support while studying

Five young farmers (25%) received no financial support while they were studying, whereas 15 (75%) were

fully supported to continue their studies and were given both time and financial resources. Support given by parents to their children so that they could study correlates with the level of education of the young farmers, most of whom finished high school or even went on to university (7 farmers continued studying beyond high school). Lobley (2010) also found that young farmers who succeeded their parents mostly had secondary or post-secondary education, and that often they returned to the farm after studying, with ideas of things they wanted to implement.

Land

It was found that only four young farmers received a parcel of land to work on their own while still helping their father on the rest of the farm. Farmers A11 and A19 had the two largest farms, with 4.9 ha and 40 ha, respectively. By contrast, 17 of the 20 younger farmers did not benefit from this GIP action, which contradicts the hypothesis that giving land to the heir results in a greater probability that positive succession will occur. With respect to the farmers who mentioned this GIP action, farmer A19 mentioned that *'when I began farming, he gave me a parcel of land and said, "you're in charge of this"'*. This young farmer said he even got a parcel of land on which there were greenhouses.

> *In fact, we had greenhouses and they were separate from the rest of the farm. We'd been farming organically for several years.*

This GIP action often became the space in which the incumbent farmer passed on his knowledge to the young farmer and the latter put it into practice more-or-less independently. Carolan (2018) argues that such spaces are ideal for knowledge transfer since they constitute a critical aspect of farm succession.

Planning

Regarding planning, six of the young farmers (30%) mentioned indirectly that since they were young, their fathers had been planning for them to stay on the farm. However, we noted that in the case of 10 farmers (50%), there was initially no formal planning and that from an early age – typically between 13 and 17 – the farmer's son/daughter had the possibility of choosing the path that best suited them: to continue studying or to choose another vocation. These young people started high school or even university, but did not necessarily finish; or they started working in another field, outside of agriculture, and then sometimes returned to the family farm because of the lack of opportunities. For these successors, the planning process began when they decided to return to work on the family farm. In such situations, several young farmers described certain actions that the incumbent farmers considered as part of the planning process, for example: including the successor as a business partner with the incumbent farmer, uncles and brothers (A4, A11, A14, A17, A18 and A20); leaving the farm to their heir to farm full-time and change the farming operations if they wished (A3 and A10); horizontal integration on the farm (A12) or vertical integration on the farm (A20). None of the farmers mentioned an explicit plan for succession drawn up well in advance. Our research revealed mostly tacit actions or explicit but intermittent actions. The ideal roadmap with clear short- and long-term actions was not observed. This result is in line with the findings of Morris et al. (1996), who stated that in successful transitions, succession planning and related control activities are relatively informal.

Cross sectional analysis

Three out of four cases in which the incumbent had positive communication also involved five GIP actions, which suggests that positive communication is usually associated with a better GIP process. On the other hand, neutral or negative communication about succession is strongly correlated with late planning or no planning at all. This is unsurprising, given that the incumbents usually encouraged their sons to study, or left the final decision up to the successor. The decision to stay on the farm was therefore usually made by the successor once he had studied or worked off the farm, in which case planning took place in later years.

The absence of increased decision-making is more common when GIP levels are low. No farmer who had two or fewer GIP actions experienced increased decision-making. Similarly, lack of planning is a recurring

characteristic associated with the absence of increased decision-making. Additionally, the absence of the incumbent at some point due to an unforeseeable event or poor chemistry between the father and his heir leads to low levels of GIP (A2, A4, A6, A9, A17).

In this study, allowing the heir to independently manage a segment of the farm was not common. This could be due to the economic conditions related to the farm as most farms did not exceed 4.9 ha. In such cases, awarding a segment of land to a potential successor for them to have a certain level of independence while continuing the normal production on the rest of the farm could affect the farm's profitability.

Two features were common to most (more than 75%) of the young farmers: 1) they received payment for their work even during childhood and adolescence, and 2) their father usually supported them by financing their high school and university studies. These two patterns hold true at both high and low GIP levels.

Table I: Number and type of GIP actions experienced by each young farmer

Farmer	Communication*	Decision Making	Payment	Financial support	Land	Planning	Number of GIP actions experienced
A1	+	Yes	Yes	Yes	No	Yes	5
A5	+	Yes	Yes	Yes	No	Yes	5
A12	0	Yes	Yes	Yes	Yes	Yes	5
A13	0	Yes	Yes	Yes	Yes	Yes	5
A19	+	Yes	No	Yes	Yes	Yes	5
A16	+	Yes	Yes	Yes	No	Yes	5
A3	-	Yes	Yes	Yes	No	Yes	4
A8	0	Yes	Yes	Yes	No	Yes	4
A10	0	Yes	Yes	Yes	No	Yes	4
A11	0	Yes	Yes	Yes	No	Yes	4
A14	+	Yes	Yes	No	No	Yes	4
A18	0	Yes	Yes	Yes	No	Yes	4
A20	-	Yes	Yes	Yes	No	Yes	4
A7	0	No	Yes	No	Yes	Yes	3
A15	0	Yes	Yes	Yes	No	No	3
A9	0	Yes	Yes	No	No	No	2
A17	0	Father Died	Yes	No	No	No	2
A4	0	No	Yes	Yes	No	No	2
A2	0	Independent	No	Yes	No	Yes	2
A6	0	Father Died	No	No	No	No	0

***Communication: positive (+), negative (-), neutral (0)**

Reasons why young farmers stayed to work on the family farm, and relation to the GIP

We analysed young farmers' recurring motivations for staying on the farm, in relation to the number of GIP actions exhibited by each young farmer (Table II). The main reasons that young farmers gave for continuing to work on the family farm were clustered into three groups: self-management, a feeling of belonging, and family ties.

Table II: Young farmers' main motivations to keep working on the family farm and number of GIP actions experienced

Farmer	GIP actions experienced	Main motivations									
		Self-management			Feeling of belonging		Family ties				
		Financial independence	Autonomous decisions	Time independence	Attachment to farm/ region	Lifestyle	Avoidance of conflict with father	Giving back to the father	Inclusion in decision-making	Continuing family tradition	To support siblings' studies
A1	5	X			X		X				
A5	5							X			
A12	5	X	X	X	X	X	X				X
A13	5	X									
A19	5	X						X			
A16	5				X	X		X			
A3	4		X	X							
A8	4		X								
A10	4				X	X		X		X	
A11	4	X		X							
A14	4	X									
A18	4		X			X			X		
A20	4	X							X		
A7	3	X			X			X			
A15	3				X						
A9	2	X	X		X	X					
A17	2	X									
A4	2							X			
A2	2		X				X	X			
A6	0		X								
Total	72	10	7	3	7	5	3	7	2	1	1
Percentage of farmers		**50%**	**35%**	**15%**	**35%**	**25%**	**15%**	**35%**	**10%**	**5%**	**5%**

The Spearman correlation between number of GIP actions and number of motivations that led young farmers to follow in their father's footsteps is 0.24, which is a low but positive value that reflects a weak association between these two variables. For example, the average number of motivations expressed by young farmers who experienced five GIP actions is 2.83. On the other hand, the average number of motivations expressed by farmers who experienced two GIP actions or fewer, is 2.

The first category and perhaps the one receiving the most attention, concerns self-management. Of all motivations, 49.83% are related to this group. Financial independence is the most important one, which shows that young farmers see farming as a way to earn money in light of a very common study-work dichotomy perception.

Motivations related to family ties account for 31.23% of the total. 'Giving back to their father' is an important motivation to stay on the farm, mentioned by 35% of young farmers. This result shows the importance of their father's opinion for young farmers, regardless of past GIP actions.

Related to a feeling of belonging, attachment to the farm or region plays an important role since farms are usually passed on from one generation to the next. Similarly, 25% of all young farmers interviewed preferred a quiet lifestyle and being in touch with nature, rather than city life. These kinds of motivations account for 18.94% of the total.

Figure 1 depicts the main reasons to continue working on the farm, and the relationships between them and

other factors. We discuss each cluster in the discourse analysis section.

Figure 1: Diagram of reasons to stay on the farm

Discourse Analysis

Group 1: Self-management

This group exhibits a clear relationship with the GIP action called "payment". Economic independence is the most important factor in this group. It was mentioned by 50% (10/20) of the younger farmers and can be considered an evolving process. Economic independence referred initially to the small amounts of money those young farmers received when they were children or adolescents. These payments were enough to buy inexpensive objects or to spend on leisure activities. Some of the younger farmers mentioned that even when they did not have an active role on the farm but still received a small sum from their father, this influenced their decision to continue working on the farm. For example, farmer A20 mentioned:

> *In my case, during harvest, each week I got some money to do whatever I wanted with.*

Likewise, farmer A11 mentioned:

> *I came to the farm, worked and then got to buy what I wanted, so this kind of economic independence is an incentive to keep learning and keep working.*

The second stage is associated with later phases in the succession process, when the successor already had a family or other kinds of responsibilities. Farmer A14 (married, and wife pregnant), is an example:

> *The money is important, as I saw that I was doing well and that I began to have a good income, I decided to stay. If I had started out poorly, I probably would have left.'*

Additionally, we see that economic independence is related to the 'study-work dichotomy', where many farmers perceive studying and work to be mutually exclusive. Studying is associated with a lifestyle that is much more economically restrictive compared to working on the farm, where one can earn an income much more quickly. Farmer A17 said:

> *When you study, you have many needs, I saw it with my sister, she needed a lot of economic help when she began to study, whereas here, working on the farm gives me money.*

Likewise, farmer A13 mentioned that:

> *Between studying and working on the farm, I was more interested in working on the farm because I started earning money, so I had it to spend on whatever I wanted. That would not have been the case if I'd chosen to study.*

Similarly, farmer A9 mentioned that:

> *Because of the poor economic situation, I was obliged to stay and work on the farm; studying was not an option because I didn't have the financial resources that it required, whereas working on the farm gave me more economic independence.*

One of the young farmers (A7) mentioned that it was impossible to find work in his field, so his only way to make a decent living was to return to work on the family farm:

> *What drove me to stay on the farm was that I couldn't find a job, things were really complicated. I couldn't find a stable job in the field that I'd studied in.*

In this case, working on the farm was the response to the lack of economic independence caused by unemployment in other sectors, which is in line with Kazakopoulos and Gidarakou's (2003) findings. Six farmers (30%) indirectly mentioned decision-making autonomy. In such cases, young farmers mentioned that when they worked with their father or another business partner, they could not make decisions, but when their father stepped down as the incumbent farmer or became too old, they became the new decision-makers on the farm and this motivated them to stay. For example, farmer A3 worked with one of his father's business partners from a young age, and mentioned the following as the main reason to stay on the farm:

> *There's no partner now, I'm not with my father now, now there's no one, so no one can say anything to me about the decisions that I take.*

Similarly, A12 mentioned:

> *What motivated me to stay was organic farming, I had a lot of ideas and things to implement that are different from conventional farming and that was what most motivated me to stay since I could decide what route to take.*

If the successor is not prepared to assume farm decision-making, it could lead to management problems,

We observed how important it therefore was for the successor to be self-confident enough to be able to manage the farm once their father was no longer in charge. Such confidence is related to the level of empirical knowledge acquired during the formal or informal agricultural training process. The more the young farmer is incorporated into the decision-making process, the more training they will have, and so will be more confident about taking over the farm. Twenty percent of farmers (4/20) mentioned empirical knowledge as a determining factor for staying on the farm – something that equally applies to other agriculture-related activities such as food retail and food processing (Levidow, 2018). For example, one farmer mentioned:

> *I feel like I don't do too bad...so this is motivating and makes me think that this is where I should be,*

adding that empirical knowledge was even more important than formal education:

> *… I don't really like to talk to the technicians (company representatives) because often they end up asking me questions and they're the ones who've studied, but I have what they don't have, which is experience, and that's what's most important.' (Farmer A2)*

Farmer A10 explained:

> *…when I decided that I was not going to keep studying, I knew that I could do well in what I'd been doing since I was young, and I still feel that way.*

Another driver in this group corresponds to time independence and was mentioned by three of the farmers (15%). They highlighted the well-being they experienced about not having set working hours, which was a factor that influenced their decision to stay on the farm. For example, farmer A3 explained that:

> *A truck driver [his brother's job] has a difficult schedule, you have to wake up very early, at one or two in the morning, every day. Here, no, I wake up around 6:00 a.m. and if I arrive a little later it's alright.*

These factors are strongly associated with a rural lifestyle, and are in line with those found by Kazakopoulos and Gidarakou (2003).

Group II: Family ties

Among family ties, the most important factor was having their father's approval. Seven farmers (35%) referred to this, which shows the cultural importance of the father in the scheme of family values, and of the perpetuation of the lifestyle that he had established. It also shows a feeling of gratitude towards the father. For example, farmer A2 explained:

> *I stayed in order to give back to my father some of what he has given me; he gave me the best I have, he taught me how to work, and this is worth a lot to me, so it was a way to give back, it was like saying: I'm going to thank him by staying here.*

Another family value reflected in the farmers' answers was the work ethic, which made it 'worth it' to keep working on the farm. The farm was seen as the nucleus of the family business and the source of development not only for the farmer but for the entire family. In this respect, farmer A16 added:

> *... I see it, I see it in them [his parents], so much work they've put into it, so that's what makes me want to stay here, to thank them.*

In the concept of the family, the importance of the father stands out again, as does the desire to take care of him when he no longer has the physical capacity to keep working on the farm. Farmer A19 exemplified this

when he commented,

...family first, that's what I always think. Now that my father's starting to get old, he needs help.

Linked to this feeling of family collaboration, is the continuity of family traditions. Farmer A10 said:

My family has always been farming. When I told my father that I was going to stay, he was so happy that I decided to come back to the farm, which is basically what our family has always done.

This statement not only shows the importance of family traditions, but also emphasizes that of making their father happy by deciding to stay on the farm. It shows how the father's beliefs affect the young farmer's actions, which is linked to symbolic violence first set out by Bourdieu (1977). According to Lukes (2005), symbolic violence generates an effect of domination in the successor since they adjust their actions according to their father's beliefs.

Additionally, making others happy or ensuring the well-being of other family members also includes the young farmer's siblings. Deciding to study or not is considered a family decision rather than a personal one. Investing in academic achievement is a family project, as farmer A12 mentioned:

At one point we decided to help our sisters, who were pursuing university degrees, so we [the young farmer being interviewed and his brothers] really made the effort to keep working so that our sisters could keep studying because there was not enough money for everyone to study.

These results are consistent with those of Conway et al. (2017), who found that young farmers felt they were obligated to act like their father would have, which is also related to symbolic violence. In this case, family ties have negative implications, because they could cause young farmers to continue farming, even if this was not what they wanted.

Group III: Feeling of belonging

The 'feeling of belonging' indicated belonging as much to the place where the farmers grew up as to farming itself. Approximately 40% of employment in Zarcero is related to agriculture (Morales and Segura, 2015), and a great deal of daily life revolves around activities related to it. This is reflected in the following comment: '*...as I grew up in it, I fell in love with farming*' (Farmer A15). As a result, residents in the area have founded agricultural cooperatives that promote local development, something that reinforces the feeling of belonging to the area. For example:

...the CoopeZarcero project influenced me to stay, my father works there now. It started out as a farmers' association then became a cooperative, but ever since I was little, I've seen how the cooperative has been growing and that has encouraged me to want to farm professionally and to be able to collaborate on projects here in the area. (Farmer A5)

Such an environment generates in farmers the feeling of being responsible not only for their own farms but also for local development – a feeling that they transmit to their successors and that increases over time. Likewise, there is an appreciation of farming that also increases over time, as we see in the following excerpts from our interviews with famers A1 and A2, respectively:

As years go by, you get attached to this. Sometimes there's money sometimes there's not, but overall, you like what you're doing.

As the years go by, you end up being passionate about farming and it becomes a way of life as much for the farmer as for the family and here we're getting ahead.

Another type of attachment is that which is related to the family farm, as A7 mentioned:

The farm is part of me, of us [referring to his father and brother] and that's what motivates me to keep going.

This type of motivation was also highlighted by Joosse and Grubbström (2017). Furthermore, family farm history and the sense of belonging to the area, farm and town play an important role in the construction of successor identity, as Conway et al. (2017) argued.

Conclusion

As the average age of the farming population is increasing worldwide, the findings of this research shed light on the complex nature of family farm succession. The most significant contribution of this paper lies in the understanding of how different motivations are linked to one another and their relation to the Generational Integration Process.

This research provides empirical insights on young farmers' motivations to keep working on family farms. As every family situation is unique, a broad range of motivations can be distinguished; however, an in-depth analysis led us further, to clustering the motivations into three groups according to affinity. In addition, this research found the links between the most important motivations according to young farmers' opinions, which is a step forward on the way to understanding family farm succession.

Although the level of GIP has a low but positive correlation with the number of motivations, external factors such as the presence of a cooperative in the area, or internal factors such as the characteristics of the farm, can enhance the incumbent's actions. In this regard, higher levels of GIP can increase the possibility of succession of a farm through both internal and external synergies. Likewise, the fact that a single motivation could be enough for farmers' children to remain on the family farm, means that the more GIP actions (Table II) carried out by the incumbent, the greater the probability of the successor being motivated – which ultimately could represent the difference between having a successor or not.

Findings suggest that self-management-related motivations play a key role in having a farm successor. Self-management can be encouraged in two ways, the first one oriented to financial independence, and the second one linked to decision-making autonomy. Regarding financial independence, adequate payment is crucial to encourage a son or daughter to stay on the farm. When they are still very young, a weekly allowance seems to be a necessary action to encourage them later on to stay on the farm. However, as payment should increase as the responsibility and age of the heirs increase, other kinds of remuneration are used, such as payment per hour, a salary, and a share of profits. Similarly, the incumbent must consider the heir's opinion related to farm decision-making. The lack of inclusion in decision making, along with inappropriate or no payment can jeopardize family farm succession.

While farm characteristics, incumbent characteristics, and context all have essential roles to play in family farm succession, family ties can be the main reason why young farmers decide to follow in their father's footsteps. According to this research, having younger siblings to take care of or honouring the family farming tradition are decisive reasons that can be even more important than self-management.

As a feeling of belonging is an important group of motivations, it is strongly linked to the farm or town where the young farmer grew up. As such, the feeling of being responsible for the wellbeing of the town can play a key role in determining young farmers' decision to stay on the family farm. Local initiatives such as cooperatives or farmers' associations are presented as important elements in the construction of a feeling of belonging starting in childhood. Regarding attachment to the farm, this motivation has profound links to self-management motivations, since autonomous decisions can be made when young farmers are included in farm decision-making – a long-term action that is in turn linked to the number of years worked on the farm.

Analysing farm succession using isolated factors can lead to important but reductionist results, where links between motivations can be missed. The results of the present research can serve as inputs for the generation of new policies to attract young people to agriculture. For example, motivation related to lifestyle and time independence are characteristics of the agricultural sector that can attract young people who are looking for a healthier lifestyle and a job with a more flexible schedule. In addition, long-term motivations related to autonomous decisions, a feeling of belonging, and inclusion in decision-making are strongly linked not only to early childhood but also to the successor's integration as they grow up. As such, policy action oriented towards encouraging family farm succession should not be focused on solving only episodic succession crises. Instead, it must include actions with long-term orientation.

Our findings suggest that family farm succession is not just a financial or business matter; it also implies passion, family pride, connection to the family farm, and a sense of mutual family support. If we wish to keep farmers on the land, public policy should not only tackle economic or financial aspects, but also attempt to address the intangible aspects that can be decisive in the process of becoming a young farmer.

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Legitimating Visions, Mitigating Risks: Industrial and Agrarian Strategies to Resolve the Enigma of Animal Welfare

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Robert CHILES[1] and Scott LOUGHEED[2]

Abstract

The tension between industrial and agrarian systems is well traveled territory in both environmental and rural sociology, but the needs, interests, and experiences of animals as meaningful subjects in the context of these systems has received far less attention. In this paper, we accordingly analyze how public understandings of risk and legitimacy are actively negotiated by industrial and agrarian meat producers in the aftermath of animal welfare controversies. More specifically, we examine how animal welfare is enacted through these two paradigms, respectively, by analyzing Temple Grandin's industrial slaughter reforms and on-farm (agrarian) slaughter. We argue that all concerned meat producers must make difficult decisions about which animal welfare risks they wish emphasize or de-emphasize, and that neither system can eliminate these risks entirely.

[1] Department of Agricultural Economics, Sociology, and Education; Department of Food Science; Rock Ethics Institute; The Pennsylvania State University
[2] Department of Agricultural Economics, Sociology, and Education; The Pennsylvania State University

Corresponding author: Robert Chiles, rchiles@psu.edu

Bibliographical notes

Robert Chiles, is an Assistant Professor of Rural Sociology in the Department of Agricultural Economics, Sociology, and Education, the Department of Food Science, and the Rock Ethics Institute at The Pennsylvania State University. His scholarship involves three related themes: (a) how food culture, ethical beliefs, and political-economic institutions are intertwined, (b) the methods and social processes by which agricultural science is performed, and (c) the development of novel, interdisciplinary, and impactful solutions to food system challenges and controversies. His overarching objective is to empower scholars, students, policymakers, and other stakeholders to make sociologically and ethically informed decisions about food and agriculture. He recently served on the Board of Directors for the Agriculture, Food, and Human Values Society. He earned his PhD in Sociology at the University of Wisconsin-Madison.

Scott Cameron Lougheed, is an environmental social scientist. Most recently he was a postdoctoral fellow in Geography and Planning at the University of Toronto. Prior to that he was a visiting scholar in the Department of Agricultural Economics, Sociology, and Education at The Pennsylvania State University. He earned my PhD from the School of Environmental Studies at Queen's University, Kingston. He also hold Master's (Queen's University) and Bachelor's (University of Victoria) degrees in Sociology. His primary interests lie in two domains: environmental governance, particularly with respect to waste and consumption; and the biopolitics of the food system. He is also interested in the development of community and communal spaces. He is particularly interested in models of collective ownership and sharing as a means of reducing consumption (and thus, waste), community capacity-building and empowerment, and social justice.

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Introduction

Industrialization and consolidation in the meat and livestock industries in the United States has resulted in the vast majority of US livestock being raised under intensive confinement and slaughtered in high throughput packing houses (Wohlgenant, 2013; Blanchette, 2018). In response to public outcry over the treatment of animals in these facilities (see Norwood and Murray, 2018; Tonsor, Lusk and Schroeder, 2019), legislatures, government agencies, and companies have increasingly taken steps to address animal welfare issues (Sullivan et al., 2017; Grethe, 2017; Tonsor and Wolf, 2019).[1] The Proposition 2 (2008) and Proposition 12 (2012) ballot initiatives in California further pushed the industry to reform its animal welfare practices, both in the state and nationally. Alongside, and to some extent in opposition to, the dominant system of industrialized production, there exist alternative livestock production systems which often describe themselves in contrast to conventional industrial animal producers. This method of production accounts for only a fraction of the meat sold in the US (Mathews and Johnson, 2013) but the demand for these products has grown post-COVID19 (Nickelsburg, 2020). In this paper, we explore the persistent tensions that lie between (and within) these competing systems of meat production, specifically as concerns animal welfare.

While we recognize that meat production can take myriad forms, for the purposes of this paper we identify two ideal-types of meat production, which we refer to as 'industrial' and 'agrarian' (see Thompson, 2015), characterizing the ends of a broad spectrum.[2] Industrial discourse and practice tends to correspond to large-scale intensive operations that use some combination of grain feeding, confinement housing, prophylactic antibiotics, and wholesale and/or mainstream retail. Industrial meat producers' goods are made affordable and accessible through economies of scale, yet this same process also makes these goods homogenous and impersonal. Advertisers, restaurants, and retailers can aestheticize, enchant, and add value to these types of products, but their cultural authenticity remains subject to increasing consumer scepticism. In contrast, the agrarian discursive strand is often taken up by smaller operations that typically use some combination of extensive production methods, agroecological practices, traditional knowledge, grass feeding and finishing, outdoor, pasture or free-range housing and feeding, organic labelling, minimal antibiotic use (e.g., only for treatment of illness), and local marketing through farmers markets, local retailers, or direct to consumer channels (Mathews and Johnson, 2013). By producing niche, specialized products, agrarian meat producers lay claim to the 'lost art' of pastoral living, terroir tastes, craft butchery, close direct contact between farmers and consumers, and the nostalgic yearning for an uncorrupted relationship between animals, land, and people that is sustainable and nurturing (Weber et al., 2008).

The discord between industrial and agrarian systems is well travelled territory in both environmental and rural sociology (Guzmán et al., 1997; Foster 1999; Buttel, 2001; Guzmán and Woodgate, 2013), but the needs, interests, and experiences of animals as meaningful subjects in the context of these systems has received far less attention (see Bohr and Dunlap, 2017; Twine, 2020). This is unfortunate, as farmed animals number in the billions across the globe (Mehrabi et al., 2020), and 'all vertebrates should be considered capable of experiencing pain (National Research Council, 2009, 23)'. In recent years, a core constituency of determined scholars has steadily increased the visibility of animals' interests in both environmental and rural sociology (e.g. Tovey, 2003; Buller and Morris, 2003, 2014; Kendall et al., 2006; Morris and Kirwan, 2006; Irvine and Ellis, 2010; Deemer and Lobao, 2011; Ellis, 2013; Pellow and Brehm, 2013; Fitzgerald and Pellow, 2014; York, 2014; Chiles, 2017; Bassi et al., 2019). To date, this emerging body of work has extensively critiqued the moral status of animals in the context of industrial capitalism (Miele and Bock, 2007; Ransom, 2007; Maciel and Bock, 2013; Gunderson and Stuart, 2014; Stuart and Gunderson, 2020). Environmental sociologists and rural sociologists have generally been far less critical of the agrarianism approach to animal welfare. This parallels the broader

[1] Our paper is grounded in the broadly recognized category of 'animal welfare' as defined by the World Organization for Animal Health (2021:1), wherein 'animal welfare means the physical and mental state of an animal in relation to the conditions in which it lives and dies'.

[2] In practice, there is a sizable grey area between the industrial and agrarian systems: many certified organic operations are very large, many small-scale ranches use conventional rearing practices, larger operations are experimenting with certain types of agroecological practices, and so on.

public discourse on animals and the environment, wherein many animal protectionists have sought common cause with environmentalists on factory farms (Holt, 2008) and have thus been reluctant to alienate small farm defenders (Freeman, 2020). In recent years, however, a slowly growing chorus of animal ethics scholars has begun to critique the agrarian vision of animal welfare as well (Weis and Ellis, 2013; Ellis, 2014; McWilliams, 2015; Thompson, 2015; Stanescu, 2019; Lundström, 2019).

In what follows, we contribute to this discussion by comparing how industrial and agrarian meat producers articulate their own vision of how animal welfare risks 'should' be addressed. We then examine these visions in further detail by analysing Temple Grandin's industrial slaughterhouse reforms and the agrarian practice of on-farm slaughter. While our paper emphasizes industrial and agrarian production in the United States, we occasionally refer to animal welfare studies that have been conducted elsewhere, and the basic ethical tensions that we describe in this paper are broadly applicable to other geopolitical contexts.[3] In short, we argue that many of the tensions and contradictions that disrupt the legitimacy of meat are longstanding and likely to persist indefinitely, regardless of the material and discursive resources that are deployed to address them.

Framing Risks to Animal Welfare: The Discursive Struggle for Legitimacy

The concepts of legitimacy and risk are ideally suited to comparing and contrasting the industrial and agrarian paradigms, and they moreover have a deep and storied tradition in environmental sociology (e.g. McLaughlin and Khawaja, 2000; Frickel and Davidson, 2004; Marshall and Goldstein, 2006; Pellow and Brehm, 2013). At its core, legitimacy is a reflection of social acceptability, and a person, object, practice, or institution is legitimate to the extent that it is taken for granted and unquestioned (Johnson, Dowd, and Ridgeway, 2006). Classical sociological theorists have traditionally used the concept of legitimacy to analyse citizens' acceptance of state power. Habermas (1975), for example, argued that the contradictions intrinsic to late-capitalist societies resulted in a loss of public confidence in state governance (legitimation crises), while Giddens (1984) conceptualized domination, signification, and legitimation as comprising the core structural features of social systems. However, in an increasingly consumer-driven postmodern world, where political decisions are made daily through one's participation in the marketplace, the process by which producers, mass media, and consumers legitimate large industries also requires critical attention. Public reactions to meat industry controversies also vary according to the specific context in which people respond to them. For example, as a citizen, someone might vote to support a cage-free ballot initiative, but as a consumer, they may well continue to purchase conventionally sourced eggs (Norwood et al., 2019).

The repositioning of the consumer within the market in recent decades maps onto the shifting of scientific authority over a similar period, as described by Beck (1992). Throughout the twentieth century, experts and scientific institutions maintained a privileged position of power by which they could authoritatively identify risks and determine 'appropriate' social solutions (Beck 1992; Mythen, 2004). This is no longer the case in late modernity, where science is no longer the primary means by which risks are understood or legitimacy is maintained. For many in the animal agriculture community, this has been a difficult transition to come to terms with (Rollin, 2011). The rationality of science, while not replaced or rendered illegitimate, is increasingly butting up against a 'social rationality' of cultural values, norms, and knowledge beyond science (Beck 1992; Mythen, 2004). The broader societal tension between these epistemic communities maps closely with the tensions between the two dominant meat production systems, whereby industrial systems are grounded in techno-scientific rationality and agrarian systems are grounded in social rationality. In the context of meat production, social rationality is typically understood through consumer demand for 'better' meat. Here, industrial and agrarian producers effectively compete with one another to emerge as the most dependable provider of legitimate meat in the eyes of consumers. Effectively framing animal welfare risks is critical to these actors' ability to secure their legitimacy in the eyes of concerned publics. By invoking the language of risk, we are referring to the extent to which certain aspects of animal welfare are prioritized and protected

[3] See also Carey et al. (2020, 301)'s observation that animal welfare preferences and institutional arrangements in one region can become 'globalized' and thus extended to other markets.

or not. Different ways of framing the issue of animal welfare – and risks thereto – —underpin the material and discursive strategies mobilized to establish legitimacy with consumers. These are important distinctions to understand, as different types of producers vie for legitimacy with consumers, and in so doing shape discourses of what meat production 'ought' to look like.

The Industrial Discourse on Animal Welfare

Industrial meat producers and retailers leverage their structural position within the global food system to secure stability and symbolic capital, in large part by continually refining and tweaking the industrial apparatus through the use of science and standards (Ransom, 2007). In the US context, the meat industry has developed close relationships with government agencies, legislators, and policymakers, and these partnerships have been used to reframe welfare and risks to welfare in industry-friendly terms (Ransom et al., 2010). With respect to animal welfare crises, 'many companies acknowledge national regulations in their own animal welfare policies as a means of gaining legitimacy with national governments and the corresponding national public' (Ransom, 2007, 32). This has been further facilitated by the institutionalization of neoliberal discourse, wherein government oversight and regulation of the market has been scaled back and corporations have taken the initiative to set the rules and standards that govern the economy (Busch, 2000, 2011; Konefal et al., 2005). Given stiff price competition and the natural limits to the total quantity of food that consumers can buy, private standards have been particularly important in helping retailers to expand their market share by focusing on quality and value-added products like 'black angus' certified beef (Busch, 2000, 2011; Konefal et al., 2005). Quite often, however, corporations' rules of classification, measurement, and grading 'mask controversy and vested interests and allow actors to exclude, conceal, and mystify possible alternatives' (Ransom et al., 2010, 160).

Defining animal welfare in quantifiable and measurable ways places emphasis on attributes that are easily recorded, aggregated, and expressed as rates or averages. This facilitates the standardization, auditing, and enforcement of standard veterinary health measures concerning, for example, mortality, morbidity, and growth – what Appleby (1999) would describe as the body domain of animal welfare (Thompson, 2015). In essence, these narrowly defined metrics serve the interests of industrial producers by neglecting other aspects of animals' experiences that are less amenable to uniform measurement and scientific interventions. The challenge of accurate and comprehensive on-site measurements is further compounded in production systems that lack unannounced and longitudinal auditing.

Industrial meat producers also secure partnerships to develop standards with third-party organizations and/or academic entities that can further testify to their legitimacy. Here, as noted by Carey et al. (2020, 285), a certified label like 'sow stall free' effectively 'corporatizes animal welfare through the co-optation of activism against the factory farming of animals'. In exchange for the blessing of these entities and actors, the industrial meat producers allow these groups to leverage their influence and get things done that would not happen without corporate cooperation. The work of Temple Grandin, an animal sciences professor at Colorado State University, is an exemplar of this phenomenon.

Temple Grandin and Science-Based Risk Framing

For decades, Grandin has been a leading voice on animal welfare issues and has been praised by corporations and activists alike for promoting livestock handling recommendations, slaughterhouse designs, and consulting work. Nearly half of all beef slaughterhouses in North America are based on her designs, and she has also developed 'an objective scoring system for assessing handling of cattle and pigs at meat plants' (Grandin, 2021). Her personal narrative about living with autism, along with a dramatized biography on HBO, has further legitimized her with the public by positioning her as a charismatic science communicator (see Lion, 2020). Grandin's work is also influential because she symbolically affiliates herself with dominant institutions and discourses in the broader society: scientific progress, improving production efficiency, and affective revulsion at animal suffering (Carey, 2011; Lion, 2020).

When companies that enlist Grandin find themselves in the midst of controversy, these companies symbolically affiliate themselves with the principles of animal welfare by pointing to their work with Grandin in an effort to insulate themselves from criticism. At the same time, the companies, and Grandin herself, will distance themselves from disgraced workers and suppliers by labelling them as bad apples that did not follow company guidelines or Grandin's instructions. If the companies are willing to negotiate with Grandin and show improvement to her liking, she will publicly defend them, but if they do not, she walks away. This has sometimes led her to take apparently contradictory positions.

One example of Grandin's 'walk away' tactic can be found with the negative publicity that engulfed KFC and their supplier Pilgrim's Pride in the mid-2000's. In 2004, an NBC NEWS article on Grandin mentioned that KFC chose Grandin to coordinate its supplier animal welfare audits because she was 'the best possible professional' (Bonné). One month later, however, People for the Ethical Treatment of Animals released a video that depicted Pilgrim's Pride slaughterhouse workers 'jumping up and down on live chickens, drop-kicking them like footballs and slamming them into walls, apparently for fun' (McNeil, 2004). According to the undercover investigator who shot the film, the workers were trying to 'alleviate boredom or vent frustrations' at having to work late, behaviour that was normally tolerated by the supervisor except when plant inspectors were visiting. Grandin told The New York Times that the behaviour was 'absolutely atrocious' and 'they need to fire the plant manager' (McNeil, 2004). KFC called for the workers to be fired and threatened to end their relationship with Pilgrim's Pride if the incidents continued. Pilgrim's Pride and KFC further said that they would send Grandin – who served on KFC's animal welfare advisory board – to the plant to further investigate. KFC's public shaming of the Pilgrim's Pride facility was somewhat ironic, as the same facility had won KFC's 'Supplier of the Year' award in 1997. The fact that such a damning episode occurred at an award-winning facility showcases how quickly a meat producer's legitimacy can be shattered. By 2005, Grandin and three other consultants on KFC's Animal Welfare Advisory Committee had resigned, having felt 'used', particularly after being asked to not discuss KFC's animal welfare policies in public (Martin, 2005).

A similar event involving McDonald's and Smithfield Foods occurred in 2011, but in this case, Grandin ultimately chose to publicly defend the company. In 2004, Grandin and Dr Stan Curtis wrote that the current Animal Welfare Management System for Murphy-Brown, a Smithfield subsidiary, 'could serve as a model for the entire U.S. pork industry (Smithfield Foods, 2004)'. Later, in 2007, Smithfield announced that it would end the use of gestation stalls, a move praised by HSUS – the Humane Society of the United States (The Virginian-Pilot, 2013). In 2008, McDonald's issued a statement acknowledging Smithfield's commitment 'to the well-being of animals' (McDonald's Corporation, 2008). By 2010, however, 'HSUS found that Smithfield pigs were living in hellish conditions where basic needs were systematically unmet' (McWilliams, 2011). HSUS' investigative footage had been shot at a Murphy-Brown plant, the same company Grandin had previously described as 'a model' for animal welfare (McWilliams, 2011). After an investigation, Murphy-Brown fired three of the workers (Philpott, 2013).

Unlike KFC, Murphy-Brown and Smithfield were willing to continue negotiating the path forward with Grandin, and she stepped forward to shield them from criticism. While Grandin was critical of the company's practices on the video, she qualified her remarks by saying 'I'm not going to defend them on that. They did stuff that was definitely wrong. But when you looked at some of the older undercover videos, it was way, way worse (Walzer, 2011a)'. This statement is puzzling, as Grandin and her colleague had praised Murphy Brown's practices seven years earlier, in 2004. A year later, in 2011, Grandin starred in a Smithfield promotional film that commended both her life accomplishments as a 'groundbreaking animal advocate' (Walzer, 2011a), and Murphy-Brown's commitment to animal welfare and social responsibility. Grandin used the opportunity to praise Murphy-Brown – which had just been badly embarrassed by the HSUS video – for its longstanding commitment to proper animal handling. HSUS later filed a complaint with the U.S. Securities and Exchange Commission, claiming that Smithfield's film constituted false advertising (Walzer, 2011b). In 2015, Smithfield announced that it had committed, for a second time, to a plan to phase out the gestation crate and was again praised by HSUS (Walzer, 2011c). After Smithfield declared that it had accomplished this goal, in January 2018

(Sauers, 2018), the activist group Direct Action Everywhere released a series of undercover videos alleging that gestation crates were still being used at Smithfield facilities – a claim that Smithfield disputed (Matthews, 2018).

In short, there is an inherent contradiction in Grandin's legitimation strategy. When things go according to plan, she wants those instances to be understood by the public as the baseline for how the entire industry works. When things do not go well, however, she wants those involved to be treated as 'bad apples' that do not reflect upon the entire industry. In 2014, for example, Grandin (2014, 467) wrote 'I have worked over 40 years in this industry and I am proud of the improvements I helped achieve. We need to show it'. Grandin has also used examples of her idealized system in action to try to minimize the negative publicity that emerges from activists' undercover videos. For example, Grandin noted in an American Meat Institute brochure that 'It should be reassuring to know that 50 percent of cattle and 20 percent of pigs are processed in plants that use my designs', even though she had previously acknowledged that her own systems often fail to resolve animal welfare challenges due to inadequate implementation (Grandin, 2006, 129).

On numerous occasions, Grandin herself has openly acknowledged that some degree of animal suffering is endemic to all systems of meat production, even at the facilities that operate according to her idealized system. In 2013, she rhetorically asked 'Can you make a slaughterhouse perfect? No, nothing in this world that's a practical thing can be made perfect' (McClelland, 2013), and she has also stated that 'it is totally impossible to stun every animal perfectly' (Grandin, 2011). The broader question, however, concerns what constitutes a socially acceptable level of risk. As noted by the U.S. General Accounting Office, if it is acceptable for 95% of animals to be stunned at the first attempt (i.e. Grandin's target rate), this 'indicates that hundreds of thousands of animals were not stunned on the first try' (General Accounting Office, 2004, 16; quoted by Singer and Mason, 2006, 67). It is therefore 'probable that anyone who eats meat will, unknowingly, from time to time be eating meat that comes from an animal who died an agonizing death' (Singer and Mason, 2007, 68).

Grandin's work, along with third-party certifications and labels, may help to bolster meat producers' legitimacy, but the aforementioned incidents demonstrate the fragility and logical inconsistency of these promotional efforts. Activists' and journalists' efforts to expose the limitations and discrepancies of these schemes can potentially make companies look even worse than they did prior to certification.

The Agrarian Discourse on Animal Welfare

While Grandin-esque reforms are one pathway to address the doubts and scepticism that continue to follow the meat industry, agrarian producers tend to frame animal welfare very differently, and as such have pursued an alternative path. Agrarian producers constitute a small fraction of the meat and poultry industry and cannot compete with the larger producers on price or availability (Johnson et al., 2012). To this end, agrarian producers and their advocates symbolically affiliate with agrarianism, a longstanding motif in American society (see Thompson and Coskuner-Balli, 2007; Hagenstein et al., 2011; Gillespie, 2011; Press and Arnould, 2011). Here, agrarian producers leverage their cultural capital by arguing for the authenticity and tradition of small-scale farming and their participation in the local community. DuPuis (2000, 293), for example, notes that when compared to smaller companies, larger companies 'cannot make the same neighborly claims with the same legitimacy'.

The small scale of agrarian operations is also purported to reduce the incidence (Alali et al., 2010), spread, and scale of foodborne hazards compared to the amplifying effect of large-scale production (Juska et al., 2003, 11). This signals a different way of framing risk. Agrarian producers further rely on their locally embedded knowledge and close relationship with individual animals to mitigate risks to the environment, humans, and animals. They moreover distance themselves from practices that are commonly associated with industrialized production, such as long-distance transportation, prophylactic antibiotics, and pathogenic proliferation (Juska et al., 2003; Klar, 2016; Stuart and Worosz, 2012). From the agrarian perspective, risks are best managed by

'mimicking relationships found in nature' rather than controlling nature (Pollan, 2006, 215).
Agrarian producers and their advocates also maintain that by avoiding intensive confinement, extensive farming operations improve animal welfare as they allow livestock to get outside, move freely, engage in natural behaviours, and have satisfying affective experiences (Pollan, 2006). This particular welfare focus seeks to preserve the expression of species-typical behaviours, satisfaction, and diverse affective experiences – what Appleby (1999) refers to as the nature and mind domains of animal welfare (Thompson, 2015). It is through their perceived close connection to nature and personalized stewardship that agrarian farmers feel specially-equipped to assess the qualitative and subjective indicators of animal welfare (Pollan, 2006; Thompson, 2015).

Despite the idealized agrarian imaginary, animals raised in extensive conditions also face 'significant welfare challenges' (Turner and Dwyer, 2007). Chickens raised outdoors, for example, can easily become overcrowded. This can result in feather pecking, and many pastured poultry farmers rely upon the industrial technique of debeaking as a convenient preventive measure (Sossidou et al., 2011). Attempts to enhance the nature and mind domains of animal welfare thus create new risks, particularly in the body domain. Due at least in part to practical and fiscal constraints, many small-scale farmers either neglect the costly veterinary care their animals require, or subject them to body modifications that inhibit species-typical behaviours such as pecking (Thompson, 2015). There are numerous painful husbandry practices that are present in 'virtually all management systems' (Stafford, Melor, and Vogel, 2021, 114): castration, dehorning, disbudding, ear notching, and ear tagging in cattle; castration, tail docking, ear notching, and ear tagging in sheep; and tail docking in pigs. Free-range systems also pose their own unique challenges. For example, 'pigs farmed outdoors, especially sows, often have rings, clips, or pieces of wire placed in their noses to prevent digging and rooting' (Stafford, Melor, and Vogel, 2021, 114). The castration of male pigs, which is done to improve the flavour of pork, is 'still common in most countries' (Bonneau and Weiler, 2019, 884). Castration without anaesthesia is intensely painful, and even with anaesthesia, serious complications can arise (McWilliams, 2015).

Biosecurity, Suffering, and On-Farm Slaughter

Support for on-farm slaughter is another important component of the agrarian discourse on animal welfare. Here, agrarian proponents argue that an animal 'killed on its own turf doesn't know what hits it' (Estabrook, 2010, 1). On-farm slaughter also avoids the process of transporting animals long distances in crowded trailers (in potentially inclement weather), which frequently results in animal stress, injury, and/or yield loss (McCorkell et al., 2013). Proponents also defend on-farm slaughter as being hygienically superior (Klar, 2016), and demand for on-farm slaughter often spikes shortly after media reports of foodborne illness outbreaks from meat (Estabrook, 2010). In short, supporters of on-farm slaughter thus argue that it has significant benefits with respect to cost-savings and flexibility, both of which are particularly important for small-scale operations.[4] As one small farmer argues in an editorial:

> *I want to know what my animal has eaten, how it has been treated through life, and that it has been killed humanely. My customers wish for these same assurances, and understand that cheap meat bears other costs – of antibiotic and hormone contamination, risks of pathogens, and the suffering caused when 400 beef are inhumanely slaughtered every hour in horrific factory 'environments'. (Klar, 2016, 1)*

In the US, a combination of increasingly strict legal restrictions on on-farm and low-capacity slaughter made access to these forms of slaughter more difficult or impossible for years (Worosz et al, 2008), leaving agrarian producers with few options other than to send their livestock to commercial abattoirs. Some localities loosened these restrictions in the aftermath of industrial meat processing shutdowns during COVID-19 (Nickelsburg, 2020). In the meantime, large slaughterhouses continue to worry that bringing in livestock from multiple small meat producers increases biosecurity risks. Industrial producers are also more likely to have

[4] In some states, only the individual who purchased the animal, not the farmer, is permitted to perform the slaughter, in others, only licensed mobile abattoirs may perform the slaughter, and in many other states the practice is banned altogether.

consistently followed strict biosecurity procedures, unlike small meat producers who lack the capacity or resources to do so (Johnson, Marti, and Gwin, 2012, 17). Prior to slaughter, pasture-raised poultry systems are exposed to wildlife, parasites, and bacteria, placing these birds at risk of acquiring numerous diseases (e.g., pasteurella) or becoming pathogen carriers (e.g., E. coli) (Sossidou et al., 2011; McWilliams, 2015).

On-farm slaughter is conducted in non-uniform settings and accordingly leads to a wide array of different outcomes. There is also conflicting evidence as to the effectiveness of certain types of on-farm slaughter methods. For example, one recent study found that manual neck dislocation was a highly effective method that resulted in 'rapid loss of brain function… [and] no evidence of reduced performance with time/bird number' (Martin et al., 2018, 1). A different study emphasized that this technique was physically demanding and time-consuming, and that the effectiveness of this technique varied widely according to operator fatigue and 'birds' weight, size, and age' (Jacobs et al., 2019, 2).

Another method for stunning and killing larger animals on-farm is to use a rifle (in contrast to the captive bolt gun common in industrial abattoirs), and this is 'a popular choice for euthanasia in North America' (Woods and Shearer, 2021, 362). Moreover, according to Iowa State Extension, 'in most circumstances on the farm or ranch, gunshot is the only practical method of euthanasia' (Shearer and Ramirez, 2013, 3). However, only certain bullets and shot placements can guarantee that the animal is immediately stunned (Retz et al., 2014), and failures to instantly stun animals with the first rifle shot can result in death being painfully prolonged by minutes (e.g. USDA, 2013). Moreover, although practitioners of on-farm slaughter in the US are expected to comply with state regulations, inspection of on-farm slaughter is sporadic compared to industrial producers, thus providing ample opportunity for compliance failures (Evancie, 2014).

Any discussion about the intentional forms of on-farm slaughter would also be remiss without attending to the unintentional forms of on-farm slaughter, that is, the incidental killing that takes place by other means in agrarian systems. For example, when exposed to open fields without shelter, chickens are unable to rely upon their natural protection strategies and can easily be victimized by predators. Pastured poultry also suffer from high rates of smothering and shorter lifespans (Sossidou et al., 2011). Many agrarian poultry farmers openly admit that veterinary care for their chickens is too expensive, and will thus kill potential predators (McWilliams, 2015). With respect to agrarian swine production, lactating sows in free-range systems can unknowingly crush their young when lying down, thus resulting in a pre-wean mortality rate of up to 25% (Seibert and Norwood, 2011, 11-12). This is a problem that industrial producers have long addressed by confining sows to farrowing crates, which pose their own set of well-publicized welfare concerns. Given the dual problems of farrowing crates and crushing, pig farmers are essentially caught in a bind, as crushing in free-range systems can only be managed by careful 24-hour surveillance of lactating sows. For many small operations, this type of management is extremely laborious and thus impractical (McWilliams, 2015). Upon reviewing two decades of studies on this method of husbandry (n=238; 2000-2020), Pietrosemoli and Tang (2020, 223) concluded that 'pasture pig production systems present specific challenges to animal welfare that are inherent to the nature of these systems where producers have little room to make improvements'. In short, returning to pre-industrial husbandry practices can often lead to unintended consequences that have negative ramifications for animal welfare.

Lastly, the agrarian practice of avoiding antibiotics poses another significant risk of unintentional on-farm slaughter. Under USDA regulations, any application of antibiotics to livestock requires them to be sold as 'conventional' animals, thus resulting in profit losses for organic producers. Ironically, according to organic veterinary specialist Hubert Karreman, the withholding of antibiotics has been more of a problem with his clients at smaller farms:

> *Antibiotics save lives. Using them in a timely fashion prior to any permanent damage is a critical component in the responsible use of these life-saving medicines… Sometimes a farmer operating a small organic farm will want to know everything possible they can do for an animal (short of giving an antibiotic). All-natural treat-*

> *ments, regardless of scientific merit, will be tried to save 'Bessie', but then the farmer realizes only too late that an antibiotic should have been used. This is probably unique to small organic farms, since a large organic farm may give the antibiotic more quickly because there is a ready replacement animal for the one to be removed. The animal that must leave a large organic farm does not create as much loss as an animal removed from a small organic farm. (Karreman and Fulwider, 2021, 280)*

In sum, the above examples showcase the diverse, multi-faceted, and (quite often) expensive welfare complexities that confront agrarian producers. Each operator will also face their own unique set of challenges.

Discussion

Agrarian producers, by symbolically affiliating themselves with the agrarian ideology and marketing themselves through direct exchange, have circulated a countervailing orientation to the dominant (industrial) risk discourse. At the same time, the inaccessibility and price of local meat is a constant threat to its mainstream viability, and hence its overall legitimacy in the eyes of the broader public. Moreover, while agrarian meat producers must draw firm boundaries between themselves and industrial meat producers in order to retain their symbolic capital (i.e. their legitimacy), the agricultural methods by which these boundaries are drawn introduce their own set of practical and existential dilemmas. Moreover, as agrarian production techniques are highly context-sensitive, they result in a broad spectrum of animal welfare outcomes.

Industrial producers seek to avoid these irregularities and idiosyncrasies by turning to science and technology. Science serves as a relatively stable way of ordering relationships between actors in the complex globalized food production system, which allows for the generalization of standards (Busch and Bain, 2004; DeLind and Howard, 2008). It also offers a way of both defining problems and deriving solutions, and it can serve as a means by which to restore legitimacy. Risks can also be defined and experienced through different socio-cultural and cognitive frames, such as emotional responses and specific definitions of quality (Jasanoff, 2007). It is becoming increasingly common for publics to 'test and contest the framing of the issues that experts are asked to resolve' (Jasanoff, 2003, 397). As noted by Rollin (2008, 15), 'science can give us facts relevant to animal welfare… [but] to say that the animal is 'well-off' or 'not well-off' requires a value judgement on what counts as well off'. Decision-making on animal welfare measurement in the global cage-free egg supply chain is a case in point. Here, 'at stake are different players' attempts to stabilize and commodify different ways of connecting the food chain among earth and sun, hen and farmer, distributor, marketer and retailer, and consumer, that will differentiate non-caged egg products and markets in different ways that can be legitimated by different values' (Parker, 2013, 67). It is therefore critically important for scholars, stakeholders, and publics to examine how risk is being framed, understood, experienced, and acted upon (Lupton 1999).

Efforts to reconcile the tensions between the three core domains of animal welfare – i.e. the Five Freedoms model, the Welfare Quality Project, the Five Domains welfare model, biochemical and haematological measures, and qualitative behaviour assessment – all face their own sets of challenges and limitations. This is particularly evident with respect to measurement reliability, operationalizing and implementing the framework, scaling the framework to meet the needs of large numbers of animals, ensuring transparency, and involving different groups of stakeholders (Thompson, 2015; Webster, 2016; Mellor, 2016; Wigham et al., 2018; Sandøe, 2019). Here, the use of weighted protocols (Yeates, 2013; Wigham et al., 2018) or precision/automated welfare assessments (Grethe, 2017; Winckler, 2019; Schillings, 2021) may help to prioritize certain welfare domains as opposed to others, but the establishment of such protocols and algorithms do not obviate the ethical dilemmas that are intrinsic to the prioritization choices. Animal welfare experts also disagree on which types of weighting procedures should be used for such models, and this is due at least in part to their basic differences in disciplinary training and professional roles (Dam Otten et al., 2017). There are also well-establish discrepancies between producers' and consumers' understanding of how animal welfare should be defined and pursued (Croney et al., 2018; Grethe, 2017). It should thus come as little surprise that 'no universally accepted measurement protocol has been devised' for animal welfare assessment (Wigham et

al., 2018, 176). Croney et al. (2019, 153) similarly conclude that 'it is likely impossible to find an engineering solution that fully addresses all of the issues'. The California ballot initiatives that changed farm animal welfare standards in 2008 (and then again in 2016) – along with the recently announced phase-out of caged systems in the European Union (Abnett, 2021) – demonstrate that 'the objective is a moving target… [and] to some extent, the long-term uncertainty is unavoidable' (Grethe, 2017, 85). Meanwhile, large meat companies and trade associations have continued to lobby for faster line speeds and fewer federal inspectors in processing facilities – practices that imperil both workers and animals (Nosowitz, 2020a, 2020b; Fu, 2020; Plume, 2021). Significant concerns thus remain with respect to producers' compliance with new animal welfare initiatives, both in the US (Reed, 2021) and in the EU (Dullaghan, 2020), and producer resistance to transparency only heightens public suspicion (Whitford, 2019).

Conclusion

In this paper, we have compared the different ways in which animal welfare risks are framed by industrial meat producers and their agrarian counterparts. We have also analysed concrete examples of how these paradigms are enacted by critiquing Grandin's animal welfare reforms and the practice of on-farm slaughter. Both industrial and agrarian producers have a concern for animal welfare, but they frame and define animal welfare very differently. The result is that different aspects of animal welfare are prioritized and protected and others not, depending on the system of production and the broader discursive framing. These frames shape and direct what both consumers and producers may accept as legitimate and safe.

While environmental and rural sociologists' ongoing search for viable alternatives to neoliberal capitalism and rampant industrialization is laudable and vitally important, our analysis shows that there are inevitable risks to animal welfare in both agrarian and industrial systems. We would thus encourage future environmental and rural sociological research on agricultural production to take these risks and contradictions more seriously. Moreover, given that the empirical scope of the present work is primarily focused on the US context, we would also welcome and encourage follow-up studies that focus more explicitly on the industrial vs agrarian paradigms of animal welfare outside of the US.

Regardless of where animals are raised or how well they might be treated, in order to produce meat, they must be killed. This reality can never be renegotiated, and while the killing of animals is widely accepted as a legitimate activity – made more palatable by the ways in which industrial and agrarian producers variously frame their animal welfare protection – periodic reminders of this killing continually disrupt that legitimacy.

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Building Solidarity in the Slow Food Movement

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Noha SHAWKI[1] and Gina L. HUNTER[2]

Abstract

Collective transnational efforts to create a more just, sustainable, and peaceful world must confront the diversity and inequities associated with differential positions and power. How movements deal with social disparities among participants impacts movement persistence, legitimacy, and efficacy. Slow Food International is a transnational movement that envisions good, clean, and fair food for all. Slow Food's mobilization takes various forms across the globe, and its millions of participants are highly diverse in terms of race, ethnicity, national origin, and other dimensions of identity. In this article, we use the framework of active solidarity to consider the ways in which the international Slow Food movement has mobilized its diverse participants across global disparities, and the implications thereof. Between 2018 and 2021 we conducted semi-structured interviews with 24 movement leaders, Slow Food staff, and representatives from international development partners. Drawing on these interviews, we consider the specific discourse, practices, procedures, and organizational structures that the Slow Food movement has used to address inequities and to centre the identities and experiences of marginalized communities. The Slow Food case provides an example of how civil society groups might adopt processes and practices that will not only deepen solidarity and inclusion, but also position them to realize their goals.

[1] Department of Politics and Government, Illinois State University
[2] Department of Sociology and Anthropology, Ilinois State University

Corresponding author: Noha Shawki, nsshawk@ilstu.edu

Bibliographical notes

Noha Shawki is a Professor in the Department of Politics and Government at Illinois State University. Her research focuses on transnational social movements and advocacy networks, international norms, and global governance, with a substantive focus on human rights and sustainable development.

Gina L. Hunter is Associate Professor of Anthropology in the Department of Sociology and Anthropology at Illinois State University. Her current research interests include local food movements, food as cultural heritage, and food and ethnicity. She is the author of Edible Insects: A Global History (2021, Reaktion Books).

Introduction

Transnational social movements are global networks that bring together people at different levels of governance working towards a shared goal (Smith, 2013). As globalization and interdependence expand, social movements have organized across borders to address global problems. Collective efforts to create a more just, sustainable, and peaceful world are challenged to create solidarity across class, racial, ethnic and gender differences. Transnational movements face the additional task of bridging differences of national origin, language, North-South divides, and the legacies of colonialism (Tormos and Weldon, 2016). How can movements create solidarity despite social disparities among participants, and what are the implications thereof for these movements' persistence and efficacy? These are the main questions we address in this article, using the Slow Food (SF) movement as an example to illustrate our broader arguments.

Some research suggests that downplaying difference in favour of universal aspects of participants' identities may strengthen social movements. For example, Rupp and Taylor (1999) show how, during the first decades of the transnational women's movement, essentialist notions of womanhood helped establish a sense of transnational solidary and collective identity among feminist activists who had strong personal affiliations and loyalties to their own organizations, as well as very different goals, priorities, and perspectives about what it meant to be a feminist. These essentialist identities helped them overcome some of these differences and develop a collective identity as a transnational movement to which they all belonged. However, other research has found that long-term effective cooperation within transnational social movements can only advance through active confrontation and mitigation of the exclusion, discrimination, and injustice that difference entails (Weldon et al., 2018; Wright et al., 2018). Active solidarity (Einwohner et al., 2016) is an approach for intentionally contending with difference and inequality. Scholars emphasizing the significance of active solidarity (e.g., Tormos and Weldon, 2016) counter Rupp and Taylor's study (1999) and similar arguments, stressing that a preoccupation with essentialist identities can unintentionally silence marginalized voices. In this article, we apply the framework of active solidarity to the SF movement to consider the extent to which the movement is inclusive and fosters active solidarity among its diverse participants, and the implications thereof.

SF is a transnational movement that seeks to transform the global food system to ensure it produces "good, clean, and fair food for all", a phrase that captures the movement's philosophy. SF opposes the social and ecological destructiveness of corporate industrial agriculture and supports small-scale agri-food systems (Petrini, 2001). With origins in northern Italy and a strong base in Europe and the United States, some critics claim that the emphasis on food that is pleasurable and healthy ("good"), environmentally sustainable ("clean"), and socially just ("fair"), caters to only the privileged few and will not provide "for all". Yet, in its four decades of existence, SF has expanded its programmes, reach, and membership to become a global movement with millions of participants in over 160 countries (Slow Food, n.d.a). In particular, it has facilitated connections with thousands of small-scale peasants and with indigenous peoples worldwide through the Terra Madre (TM) and Indigenous Terra Madre (ITM) networks.

To what extent does the SF movement build meaningful solidarity among participants that are so highly diverse in terms of race, ethnicity, national origin, and other dimensions of identity? Can marginalized groups (e.g., indigenous groups) find their voice and assume leadership roles in the movement? To what extent can they shape the movement? And what is the impact of any conscious efforts to make the movement truly inclusive? To address these questions, we interviewed movement leaders and SF partners from around the world and analysed SF declarations and public documents. We illustrate many of our findings using ITM as an example.

Our research extends the range of cases to which the framework of active solidarity has been applied. SF, at its inception, was considered by many to be largely a lifestyle movement, rather than a movement with explicitly political goals (Haenfler et al., 2012; see also Chrzan, 2004 for an account of the movement that views it as not explicitly political). Lifestyle movements, as we dicsuss in greater depth below, are movements that *"con-*

sciously and actively promote a lifestyle, or way of life, as their primary means to foster social change" (Haenfler et al., 2012: 2 - emphasis in the original). Our research examines the mechanisms of SF's intentional efforts to build meaningful solidarity and inclusion in the movement. Our most original contribution is the finding that to be truly inclusive and foster solidary across North-South divides, a lifestyle movement must reconsider its focus on personal lifestyle choices and expand its agenda and activities to unequivocally attend to political issues. Our article documents this shift in the SF movement over time, to focus on more explicitly political issues.

We begin with a brief overview of the SF movement and its activities, and discuss the theoretical framework that informs our study. We then describe our methods of data collection and SF's efforts towards active solidarity in discourse, structure, and practice, and their implications for the movement. We conclude with suggestions for further research.

Slow Food: Lifestyle Movement or Social Movement?

Introducing the Slow Food Movement

SF is a multi-faceted entity. As a non-governmental organization, it creates large-scale events and coordinates congresses where elected members deliberate and vote on position statements, policies, and campaigns. Additionally, it cooperates with philanthropic organizations and international organizations for development activities, mostly in the Global South. SF is also a grassroots network of millions of members working within 1600 local chapters and 'food communities'.

The movement started in the 1970s with a group of Italian leftist activists, led by Carlo Petrini, who were concerned with the threat that industrial processing and large agricultural conglomerates posed for food and wine quality and for the survival of small-scale producers. Catalyzed by the establishment of a McDonald's fast-food franchise near the Spanish Steps in Rome, activists mobilized in defense of local, artisan foods and traditional food purveyors against the "Americanization" of Italy. In 1989, the international SF movement was born. Slow Food (always written in English) opposed not only the standardization and industrialization represented by "fast foods" but also the increasing frenetic pace of life (Andrews, 2008).

In the 1990s and 2000s, community-based chapters (called convivia, signaling the notion of conviviality and the shared table) spread across Europe, and national coordinating offices were established in countries where the movement was strongest (e.g., Germany, USA, Japan) (Slow Food, n.d.b). Today SF remains headquartered in Bra, Italy, and is led by an International Council and an Executive Committee. Members of these bodies are elected by national delegates at international congresses held every four years (Slow Food, n.d.c).

In 2004, SF established the TM network of small producers to give them "voice and visibility, to raise awareness of the true value of their work, and provide them with the tools needed to be able to work in better conditions" (Terra Madre, n.d.). The ITM network was established in 2011, and an ITM Advisory Board in 2018. Since 2012 (with the exception of 2020) representatives of these global networks have met biennially at the Terra Madre event in Turin in conjunction with SF's Salone del Gusto (Italian producers' exhibition) (Terra Madre, n.d.).

SF describes its own philosophical evolution as moving from eno-gastronomy, eating to appreciate wine and food, to eco-gastronomy, eating that is concerned with the health of the planet, to, most recently, neo-gastronomy, or new gastronomy, "a multidisciplinary approach to food that recognizes the strong connections between plate, planet, people and culture" (Slow Food, n.d.d). The motto, "good, clean and fair for all", which has represented the movement since 2005, conveys the approach. "Good" refers to both taste and quality of foods that result from traditional production methods and ingredients. "Clean" food is produced and distributed in ways that minimize harm to the environment (e.g., agro-ecological production and local consumption). The emphasis is on food produced via sustainable methods that protect crop biodiversity and the ecosys-

tems needed to support traditional foods and small-scale producers. Through its projects with producers, SF efforts encompass the broader contexts of small producers' lives and working conditions. Thus, "Fair" food is socially just; it respects small producers' rights to fair prices and working conditions, and emphasizes fair prices for consumers (Slow Food, n.d.e).

SF's programmes for the preservation of agri-food practices connect cultural and biological diversity with economic development. The non-profit Slow Food Foundation for Biodiversity coordinates international projects, such as the Presidia programme (Presidia meaning strongholds or bastions), aimed at preserving biodiversity while enhancing artisanal production processes (Slow Food n.d.c). Established in 1999, the Presidia programme invites small groups of producers to work with SF to identify and protect an at-risk food product, breed/species, or ecological niche (see Milano et al., 2018). Through the Presidia, cultural aspects of small producer groups, distinctive habitats, and terroir are highlighted in a narrative label that identifies a product's unique qualities. As "examples to follow and models for action", Presidia products serve as "a means to transform the movement's philosophy into something concrete" (Sinichalchi, 2013: 299). Producers work with SF experts to develop strict protocols that producers must follow in order to use (for a fee) the SF label and promotional apparatus. By establishing Presidia, SF offers training, technical expertise, and networks but also functions as a kind of regulatory body for the Presidia designation.

SF's commitment to taste and epicurean pleasure, as well as to social and environmental justice, aims to turn consumers into "co-producers". SF's "approach to gastronomy is one of critical reflection in which consumers are encouraged to recognize their potential to recreate the global agriculture infrastructure" and "the dinner table is literally the seat of power in which consumer behaviour is portrayed as being capable of altering the globalised food infrastructure" (Dunlap, 2012: 42). The premise is that when people learn, through taste education, to enjoy local and sustainably produced food and to appreciate the process and context in which it was produced, they will choose to buy it, thereby supporting local farms and the "regional livelihoods that create local cultures and societies" (Chrzan, 2004: 123).

Slow Food: A Lifestyle or a Social Movement?

From its very beginnings, the movement wed gastronomy and politics, commerce and preservation in unusual ways that have generated much criticism. Historian Rachel Laudan (2004) has argued that SF invents culinary patrimony as much as preserving it. Peasant life is often meager and poor, as are the diets of still too many in the world. It is only due to Culinary Modernism, she notes, that so many can partake in the kind of traditional, artisanal gastronomy that SF promotes (Laudan, 2001). Similarly, another scholar argues that SF's efforts to save foods and cooking techniques from the onslaught of industrial processes and their effects, "negates the possibility of and the right to modernization of whole sectors of the Global South for the sake of an 'organic' and 'authentic' lifestyle of European and American consumers" (Schwaderer, 2021). Some argue that SF, with its focus on unique, local products and 'good taste', is as much about the creation of luxury goods and social distinction for elite consumers as it is a space of resistance for the disfranchised in the global food system (Chrzan, 2004; Laudan, 2004; Pietrykowski, 2004). As such, SF may be seen as a lifestyle choice rather than a politically engaged movement.

Wexler et al., for example, describe SF as a lifestyle movement with a "big tent" ideology that "integrates principles espoused by other ideologically rooted lifestyle movements" (Wexler et al., 2017: 4), including the voluntary simplicity movement. They distinguish lifestyle movements from protest movements. While the latter are explicitly engaged in protest targeting an "institutionalized entity" (Wexler et al., 2017: 5), such as a multinational corporation or a government agency, the former focus more on lifestyle choices and educating the public about both their benefits and broader potential to bring about change (Wexler et al., 2017).

Haenfler et al. (2012) also consider SF to be a lifestyle movement. They argue that lifestyle movements do

seek broader social and political change, but that they work towards that change by developing personal lifestyles and identities, and by targeting and changing cultural habits and practices. In so doing, these movements do not engage in contentious politics that explicitly challenge the state or other institutions or sites of political authority and targeting policy (Haenfler et al., 2012: 3). They involve ongoing individual action in the private sphere and daily life – individual action that is ultimately intended to cumulatively bring about social change and that expresses a set of personal values and fosters and supports a morally consistent and individually rewarding identity. Lifestyle movements tend to be ongoing, decentralized, and anchored in informal networks (versus formal organizations) and lifestyle movement organizations. They are also oriented towards cultural practices and norms (Haenfler et al., 2012: 5, 6-7, and 10-12). In short, lifestyle movements involve "lifestyle action undertaken by (primarily) individuals with the self-conscious agenda of change" (Haenfler et al., 2012: 3) but without joint coordination, public protest, or an explicit political agenda.

In contrast to these scholars, we show that through its engagement with diversity and efforts towards inclusion, SF has become more overtly political and can no longer be characterized as simply a lifestyle movement. We examine the ways the movement has grown among historically marginalized groups (in particular indigenous peoples) and how these groups have been able to shape the orientation of the movement. As one critic put it, the challenge for SF was "to recognize its own heritage of privilege derived from an economic system shaped by imperialism and to actively resist nostalgic renderings of the 'other' …which fetishize cultural difference and sentimentalize the struggle for cultural or economic survival. This requires more meaningful dialog between Slow Food and those it seeks to support in order to create a space of mutual respect and recognition of difference" (Donati, 2005: 239). We argue that SF has approached this challenge in part through the establishment of the TM and ITM global networks and the ITM Advisory Board. A document that reflects these changes is the Declaration of Chengdu adopted at the 7th Slow Food International Congress, held in Chengdu, China, which stated:

> *Only by radically renewing the organization of Slow Food, only by making it more open and inclusive, and only by trying out new forms of aggregation, involvement and participation can we address the challenges that await us in the future in the best way possible and thwart those—the very few—who possess power and wealth and decide the fate of the world's food and of humanity itself (Slow Food, 2017a).*

Before examining the mechanisms through which SF has sought to create solidarity across cultural difference and social inequity, we turn to the theoretical framework that guides our analysis.

Analytical framework for Active Solidarity

Solidarity refers to the "ties between social groups, their ability to act in concert, to cooperate, and act together in pursuit of social change" (Wright et al., 2018: 4), and solidarity is political when it involves groups working to coordinate their political behaviour (Einwohner et al., 2016: 3). According to the scholars who have devised the concept of active solidarity, solidarity takes different forms which vary in two respects: the degree of active engagement (vs. passivity), and the approach to diversity. The first refers to "*the degree to which activists are actively engaged in communication, in defining movement goals and discourse*" (Wright et al., 2018: 5-6 - emphasis in the original; see also Einwohner et al., 2021: 708). For example, these scholars argue that honoring a picket line is a passive form of solidarity, and while it can be significant, it is still quite limited as it does not entail active engagement, cooperation, and deliberation with others towards developing goals, a joint message, or an action plan (Einwohner et al., 2016: 4). Because it involves little active engagement and coordination, it is unlikely to be sustained in the long term, particularly in diverse social movements whose members and participants may, at least initially, lack a shared identity and mutual trust (Einwohner et al., 2016: 4). The second form of solidarity relates to "*the recognition or sublimation of difference, whether movements intentionally and explicitly* act to counter the distorting effects of power expressed in such differences" (Wright et al., 2018: 6 - emphasis in the original). A typology of solidarity that encompasses four forms of solidarity is

based on variations in both these two respects (see more on these forms in Wright et al., 2018; Einwohner et al., 2016).

Active solidarity, the most robust form, is cultivated deliberately and purposefully. It is designed to cultivate diversity and inclusion and challenge relationships of domination between powerful and marginalized groups (Wright et al., 2018; Einwohner et al., 2016; Einwohner et al., 2021: 706). Active solidarity is intended to foster critical diversity, which focuses on "interrogating differences that may be the basis for power differentials to reveal the perspectives of dominated or excluded groups on the political issues in question" and to develop "concepts and forms of political action that are reflective of these previously repressed and sublimated points of view, interests and identities" (Einwohner et al., 2016: 7). Rather than assuming shared identities or interests, active solidarity entails efforts to recognize and affirm differences between groups, and their corresponding differences in interests and identities: "more solidarity does not mean more sameness" (Einwohner et al., 2021: 707).

Another key feature of active solidarity is the intentional acknowledgement of difference and engagement with the power asymmetries and intersectional marginalization it entails (Einwohner et al., 2021: 705; see also Herring and Henderson, 2011). Active solidarity requires deliberation and the active participation of members and constituents in the movement's activities and decision-making processes based on the principles of respect, inclusion, and reciprocity. Giving marginalized groups voice entails more than listening. Dominant groups must actively engage in interactive discussions while safeguarding against the potential to simply reproduce power differentials (Einwohner et al., 2016: 8-9; Tormos and Weldon, 2016: 11; Einwohner et al., 2021: 709). In other words, formal inclusion is not sufficient. Once included, marginalized groups must have meaningful opportunities to take on leadership roles, shape a social movement, and engage with other movement participants (Einwohner et al., 2016: 10; Weldon et al., 2018: 3-4). This kind of truly inclusive deliberation "requires the development of specific norms of decision-making that work to diminish the role of power and domination in discussion, and that empower the marginalized in their efforts to articulate and communicate about their perspectives and concerns" (Tormos and Weldon, 2016: 3). Different and new issue frames could emerge from such deliberation, setting the stage for mobilizing a broader coalition of diverse groups (Tormos and Weldon, 2016: 11).

The Requirements and Impacts of Active Solidarity

Active solidarity can ensure that diversity within social movements will go beyond the presence of diverse groups in a movement and will position historically marginalized groups to play leading roles. Previous research has posited that only when movements address the diversity of their membership in genuine and meaningful ways, and acknowledge power differentials between the movement participants, can they harness the power of diversity and use it to have significant political impact and remain organizationally viable over the long term (Wright et al., 2018; Einwohner et al., 2016). It is essential to have formal rules in place that reflect a commitment to diversity and inclusion. While it is unclear what rules, exactly, can be effective in facilitating this kind of active solidarity (Einwohner at al., 2016: 8), three avenues to inclusive, substantive deliberation are to: 1) create separate, autonomous spaces for marginalized groups to self-organize within the movement and to develop their priorities and proposals (e.g., caucuses); 2) give additional weight to concerns raised and priorities defined by marginalized groups to ensure that a movement's agenda will include and reflect their concerns and priorities; and 3) ensure that there will be regular opportunities for dissent (Tormos and Weldon, 2016: 14).

The theoretical formulations we use here posit that building active solidarity can have significant positive impacts on a social movement. Movements that achieve a high level of active solidarity enjoy greater legitimacy, tend to be more innovative, possess organizational persistence, and have greater political and cultural influence. Contrary to arguments that difference and critical diversity can weaken and fragment a movement (see the review of these arguments in Weldon et al., 2018: 2-3; Tormos and Weldon, 2016: 2 and 5-6), the fra-

mework we use here views diversity as a potential resource. Inclusion can broaden social movement participation, and expand the range of experiences, perspectives, and ideas around which movement building unfolds (Wright et al., 2018: 4; Einwohner et al., 2016: 7 and 29; Einwohner et al., 2021: 708-708).

These benefits will only be realized, however, if there is an intentional effort by a social movement to build active solidarity in the ways described above. Without that effort, the interests, perspectives, priorities, and concerns of privileged groups are likely to define the movement, potentially alienating and turning marginalized groups away from a movement they come to believe does not meaningfully represent them (Tormos and Weldon, 2016: 6).

While active solidarity is a value that can animate social movements, it is also reflected in specific rules and procedures and can be empirically observed. As Einwohner et al. explain, "Active solidarity is both an empirical and a normative concept, in that in addition to being a normative goal, it can be measured as a set of observable practices that value diversity and intentions of inclusion" (Einwohner et al, 2016: 9). In other words, "the 'active' part of active solidarity is a collective commitment, visible at the level of organizational structure, agenda, or policy" (Einwohner et al., 2021: 710).

Einwohner et al. develop a set of five indicators to assess the extent of active solidarity in a given social movement, and place different social movements on a continuum that ranges from passive to active solidarity (Einwohner et al., 2016: 11-12; Einwohner et al., 2021: 711-712):

1. Active solidarity requires an accessible decision-making process centred on discussion and deliberation. Decision-making must unfold through public and transparent deliberations rather than executively by movement leaders in a top-down manner.
2. Organizationally, active solidarity requires special caucuses or other bodies for the autonomous self-organization of marginalized groups within the movement. Their absence would be indicative of passive solidarity.
3. Discursively, active solidarity requires an explicit acknowledgement of difference and diversity and the resulting marginalization. Emphasizing homogeneity and suppressing difference would be indicative of passive solidarity. Active solidarity requires that movement discourse reflect the perspectives of marginalized groups.
4. In terms of the composition of a movement's leadership, active solidarity requires the representation of marginalized groups in leadership. Homogeneity in leadership would be indicative of passive solidarity.
5. Finally, active solidarity requires opportunities for dissent and criticism by marginalized and other groups. Active solidarity is not present when participation is based on pre-defined rules and when participants lack opportunities to partake in defining them and to express dissent (Einwohner et al., 2016: 11-12).

The Broader Context of Solidarity in Social Movements

While we ground our discussion here in the active solidarity framework, it is important to note that such work builds on a much larger body of scholarship on inclusion and solidarity in social movements (Weldon, 2006; Smith and Glidden, 2012; Juris, 2008; Blackwell, 2018). These authors also note the importance of explicitly recognizing the ways that power relations permeate all social relations, and the necessity of separate spaces in which historically marginalized members develop and articulate their distinct perspectives and have their own distinct voice. Inclusivity also requires a commitment to finding consensus and common ground, while being mindful and accepting of conflict and disagreement between dominant and marginalized groups in the process of deliberation.

Weldon (2006) showed that inclusive deliberation within diverse movements can help organizations and activists cooperate and develop common collective action frames. A sense of shared interest positions them well to develop a policy agenda that everyone can support and to capitalize on available political opportunities.

Rather than assuming that a pre-existing shared identity, common interest, or frame will make cooperation possible, Weldon posited that norms of inclusivity can foster agreement and consensus across politically relevant differences even in the absence of a shared identity at the outset. She showed how three elements of inclusivity can build solidarity in diverse movements: descriptive representation, autonomous self-organization by marginalized groups, and the institutionalization of dissent in the process of consensus building. Descriptive representation refers to the participation of minorities and marginalized groups in significant numbers and in leadership positions. This requires intentional efforts to include them and to facilitate their participation. Beyond descriptive representation, inclusivity requires that members of marginalized groups have the opportunity to organize separately and autonomously within the movement to develop and articulate their distinct perspectives and have their own distinct voice. Finally, inclusivity requires an effort to reach consensus, while remaining aware of and embracing disagreement between different groups. Recognizing and affirming conflict resulting from inequality and identity (as opposed to suppressing it) while pursuing common ground can ensure that dominant groups' perspectives, identities, and interests will not carry the day in the name of building consensus and fostering cooperation (Weldon, 2006).

Others, including Smith and Glidden (2012) and Juris (2008), have also shown that these norms of inclusivity can help activists avoid the common pitfalls of decision-making procedures that privilege certain groups while creating barriers to participation by marginalized or disadvantaged groups. While Weldon's account is based on her study of the global women's movement, the norms of inclusivity she highlights also reflect the lessons that can be drawn from the global justice movement, in particular the World Social Forum process (Smith and Glidden, 2012) and the US Social Forum process (Juris, 2008). Those most familiar with these processes emphasize the importance of what Juris refers to as intentionality in fostering leadership by members of marginalized communities, and mindful consideration of issues of culture and identity. Processes for deliberation and decision making must ensure opportunities for participation by all and avoid putting in place procedures that only reflect and reinforce inequality (Smith and Glidden, 2012; Juris, 2008). Because social movement spaces can reflect prevailing power relations and social exclusions, it is not enough to simply improve descriptive representation. It is critical to intentionally empower members of marginalized groups to participate meaningfully and on an equal footing (Juris, 2008). Overall, the global justice movement has engaged in intentional efforts "that disrupted prevailing inequalities and centred the voices of oppressed groups" (Smith, 2020: 119). As Smith explains, "understandings of intersectionality and organizational practices and principles that have emerged from movements have facilitated cooperation across diverse groups and collectives" (2020: 131).

This dovetails with della Porta's (2005) definition of deliberative democracy, which is present "when, under conditions of equality, inclusiveness, and transparency, a communicative process based on reason (the strength of the argument) transforms individual preferences into consensual decision making oriented to the public good" (pp. 74-75). As della Porta (2005) has shown, the global justice movement aspires to translate these principles of democratic deliberation into movement procedures and practices. It thus adopts the principle of horizontality, a "mode of political organizing characterized by nonhierarchical relations, decentralized coordination, direct democracy, and the striving for consensus" (Juris, 2008: 354).

The concept of active solidarity and our discussion here are especially relevant to transnational social movements because they face additional challenges in building truly inclusive movements. Transnational social movements connect diverse locations to form a global movement space. These disparate places often come together via communication and mechanisms, such as meetings and events, that require economic resources and cultural capital which are not equally available to everyone. Resource-poor organizations and groups may find it particularly difficult to develop strong ties, a sense of trust, and commitment to distant allies and the broader movement. Resource-poor nodes in a global network may not be able to shape the network, its direction, and its governance to the same extent as the most affluent groups, whose economic resources and cultural capital position them to lead the network. In sum, connecting activist places to form a global movement space is a process that requires the commitment of resources needed to overcome the obstacles of

distance and diversity so that all nodes can participate and shape the movement (Nicholls, 2009).

In the following section we contribute to this body of literature by applying the concept of active solidarity to the SF movement, with a special focus on their work with indigenous communities. In doing so, we add another example of efforts to build solidarity and foster inclusion in highly diverse transnational movements. We also offer some insights into the impact of efforts to build solidarity on the evolution of a social movement and its discourse, its organizational structures, and its decision-making procedures over time.

Methods for Examining Active Solidarity in the Slow Food Movement

To examine SF's intentional efforts toward inclusive solidarity, we draw primarily on semi-structured qualitative interviews (Rubin and Rubin, 2005) with twenty-four key participants who have longstanding or in-depth knowledge of SF processes and activities. Following an approved Illinois State University Institutional Review Board protocol IRB#2018-28, we recruited participants through personal connections and word-of-mouth. Our interviewees included nine current or former International Councillors (seven from the Global South), two SF leaders from Africa, and two leaders of SF's ITM network who also serve on the ITM Advisory Board. These movement leaders, along with additional interviews with three SF central office staff members, helped us understand changes to SF's organization, campaigns, and decision-making processes over time. We also interviewed eight individuals external to SF, including officers of the International Fund for Agricultural Development (IFAD), a UN specialized agency, and leaders in non-governmental organizations who have partnered with SF for rural development initiatives. These interviews offered perspectives on SF's relationships with rural and indigenous communities. All interviews occurred face-to-face in person or via Zoom, lasting from 30-75 minutes. We prompted interviewees with a short list of open-ended questions derived from our theoretical model. The appendix contains a list of interviews and these interviews are cited by number in our discussion below (e.g., I2, Interview 2). Finally, our work is also informed by our observations at the 2018 Terra Madre/Salone del Gusto, where we first met and interviewed several of our participants, our attendance at the 2020 Slow Food USA Leader Summit (online), as well as a close reading of SF's many public documents and declarations.

Using Einwohner et al.'s (2016) indicators of active solidarity as a guide, we identified in our data several mechanisms through which SF has been working to achieve a more diverse and inclusive global movement. Our findings show that SF has: 1) publicly recognized both the value of diversity and the challenge of overcoming inequities; 2) intentionally fostered diversity in leadership and established organizational mechanisms to create a more diverse and equal membership; and 3) created spaces for public and transparent deliberation as well as autonomous spaces for historically marginalized populations. In what follows we give special attention to SF's efforts to build solidarity with indigenous peoples.

Indicators of Active Solidarity in the Slow Food Movement

Discursive Shifts: Explicit recognition of the value of diversity and need to address inequities

The recent discourse of the SF movement shows that the movement now explicitly and directly recognizes diversity and difference, as well as the inequalities associated with them. This aligns with the third indicator of active solidary in our model. The Chengdu Declaration, adopted at the SF International Congress in 2017, is a key SF movement document that explicitly marks the shift in discourse to address diversity and inclusion more explicitly. It reflects the culmination of the Slow Food movement's efforts unfolding over a longer period of time to grapple with issues of diversity, difference, and inclusion (I14). It states that "diversity is the greatest wealth we possess as human beings and as a community. Be it genetic, cultural, linguistic, generational, sexual, or religious", and "that the unjust division of riches and opportunities originates suffering and discrimination, hence needs to be addressed courageously at every decision-making and practical level (…)" (Slow Food, 2017a). These and other statements are significant because the International Congress is an important

governance body of the SF movement.

SF's statements on biodiversity represent another aspect of the movement's recent discourse that is indicative of an effort to recognize difference and diversity and the inequalities they entail. They provide evidence of the presence of the third indicator of active solidarity. A position paper on biodiversity released in 2020 states that "the cultural and gastronomic heritage of food products falls fully within the category of biodiversity to be protected" (Slow Food, 2020a: 39), emphasizing the significance of artisanal products that are connected to their local setting and of the centrality of traditional knowledge in their production. This position paper has a section on indigenous peoples that highlights their role in preserving biodiversity through the sustainability of their traditional food systems. It emphasizes the significance of protecting their rights (e.g., rights to land and to natural resources), their cultures, their knowledge and practices, and their food sovereignty, for the protection of the world's remaining biodiversity (Slow Food, 2020a: 43-45).

Relatedly, SF also released an urgent call to action to be discussed across the world ahead of the 2022 International Congress. It stated: "We believe in the fundamental importance of assembling the diverse voices that call for and manifest changes in the food system via their words and actions around the world." In addition, it stated: "… we find strength in the diversity of the participatory network that is Slow Food" (Slow Food, 2020b: 6). Beyond this affirmation of the movement's commitment to diversity and embracing diversity as a strength, the call to action identifies three broader goals: education, protecting biological and cultural diversity, and political advocacy. The focus on biodiversity, and the link established between protecting biodiversity and protecting cultural diversity, also shows a commitment to active solidarity, much in the same way as the position paper on biodiversity expresses that commitment. Both documents emphasize that biodiversity cannot be protected unless cultural diversity and traditional agricultural knowledge are protected: "When we defend biodiversity, we go beyond the biological diversity of plants and animals and think about the relationship between people and nature, as well as the traditional knowledge that has given rise to thousands of techniques for transforming raw materials into breads, cheeses, cured meats, sweets, and more" (Slow Food, 2020b: 7).

This approach to biodiversity elevates the role of indigenous peoples and artisanal and small producers in the movement because they are the guardians and stewards of traditional agricultural knowledge (17, 112, 121, 126). Protecting indigenous cultures, rights, and food systems is therefore essential for the protection of biodiversity (17). This approach makes these marginalized producers the key actors in the SF movement and makes indigenous interests, knowledge, and food sovereignty central to the movement's goals (Slow Food, 2020a: 43-45).

In line with the discursive recognition of diversity and the need for the organization to reflect the global movement has been the intentional inclusion of leaders from the South and indigenous communities at the highest executive levels within SF (114). As our model posits, such representative diversity does not necessarily indicate active solidarity unless it is accompanied by opportunities for socially marginalized voices to be heard. We see these opportunities as existing in the creation of the ITM network and in the recent shift in forms of SF membership, as discussed below.

Autonomous Spaces and Leadership Diversity

The SF movement builds solidarity with indigenous peoples[1] in ways that reflect many of the dimensions of active solidarity discussed earlier, in particular the second indicator which highlights spaces for autonomous organizing. ITM, for example, is "a network of indigenous communities, partners and organizations. It was born out of the wider Terra Madre network to bring indigenous peoples' voices to the forefront of the debate on food and culture, to institutionalize indigenous peoples' participation in the Slow Food movement and its

[1] We recognize that the constructions used by SF and in this article, such as "local food community" and "Indigenous peoples" are diverse categories themselves, and that however defined, such communities are also marked by internal power dynamics.

projects as well as to develop both regional and global networks" (Slow Food, n.d.f). With its own Advisory Board consisting of indigenous leaders from around the world, ITM mirrors what the theoretical framework we use posits is critical for building active solidarity and inclusion. ITM holds its own regional or global meetings that are led by indigenous groups and take place in indigenous territories. These meetings "represent key moments for ITM members to meet, debate, exchange knowledge and food products as well as to raise awareness among governments and civil society on indigenous peoples' issues" (Slow Food, n.d.g). In addition, ITM meetings are held as part of the Terra Madre/Salone del Gusto event. SF staff and International Councillors have described the expansion of spaces and events for indigenous communities as a turning point for SF that has significantly shaped SF campaigns and agenda (I10, I20, I7).

A motion adopted at the Seventh Slow Food International Congress in 2017 offers some evidence that there was awareness of the need to create opportunities for indigenous voices to be heard, and to value indigenous knowledge as key for achieving the goals of the SF movement. The motion acknowledges that indigenous knowledge is "traditionally undervalued" and that it "is essential to addressing global challenges such as climate change, food insecurity and inequalities". The motion expresses "commitment to supporting and strengthening the voices and participation of indigenous peoples within the Slow Food movement and Terra Madre network". Other specific commitments in this motion include "giving strength to the voices of indigenous peoples' (sic) within Slow Food communications" and "promoting indigenous peoples' holistic vision of food…and creating opportunities for exchange in which the network can learn from indigenous peoples' practices and visions" (Slow Food, 2017b). Overall, the spirit and tenor of this motion are consistent with what scholars of social movements have posited is important for building meaningful forms of solidarity. We highlight the importance of ITM as an autonomous space, within the broader SF network, for indigenous peoples. One of our interviewees noted that this space for autonomous and independent organizing is a strength of the SF movement (I25). Another noted that an indigenous network within the broader SF network allows indigenous peoples to be part of the SF movement on their own terms and participate according to their own "logic" and at their own pace, in ways that acknowledge and affirm indigenous identities and cultures (I15). A third respondent noted that participation in SF gives indigenous groups a sense that they are part of a global movement and that there is a place for them (I16). Finally, a fourth interviewee explained that indigenous groups have a different reality and therefore need their own space (I19). This helps recognize difference and value all groups (I19).

Our interviewees also explained the ways in which an autonomous space is important for building solidarity. They explained that ITM creates a space for indigenous groups to display indigenous foods, create horizontal linkages, and discuss issues that are critical to them (e.g., biodiversity), and that ITM amplifies indigenous voices and makes it more likely that they will be heard (I22) because of the global reach of SF (I24). Additionally, this autonomous space represents a "safe space" or "safe caucus" to collectively share and exchange knowledge, build networks, engage youth, and move forward separately from spaces that can be exclusive. It enables them to advance indigenous goals that are not necessarily shared by the movement more broadly (I25). While, according to an interviewee, this may not be the best venue for political organizing, it is a very effective space for knowledge sharing, exchange, and building networks (I25).

SF's engagement with indigenous communities allows these communities to define the terms of their participation. It provides them with opportunities to lead the movement, define its direction, introduce innovations, and shape the rules and processes that guide local work.

Organizationally, the ITM network is represented by two individuals on the SF International Council (I10). Representation on this governing body is a significant step towards diversifying movement leadership and the subsequent direction of the movement. The success of ITM paved the way for organizational innovations in the larger SF network, such as the formation of producer-based networks (e.g., Slow Fish or Slow Food Coffee Coalition) that overcome the limitations of geography-based organizations to provide fora for global collaboration (I17)

From Convivia to Communities

Since the International Congress in Chengdu (2017), another way SF has worked to build active solidarity is by modifying the terms of membership of Slow Food, from formal convivia to less structured food communities. Many of those we interviewed consider the addition of the communities model to be a significant development towards greater inclusivity within the SF movement (I1; I2; I5; I8; I12; I26).

For many years SF has operated locally through convivia that consist of a minimum number of dues paying members, a board of directors, by-laws, and appropriate financial reporting for fund-raising and tax law regulations (Slow Food, n.d.h). Membership provides access to resources, such as branding (the Slow Food Snail) and networks, as well as official participation and input in the organization. Countries with larger dues-paying membership can send more delegates to, and therefore have a larger voice at, International Congresses. Countries in the Global South, where there are many people extensively involved in SF work but are not dues-paying members, are not represented at International Congresses to a degree commensurate with their role in the SF movement (I12).

As SF expanded its reach, the convivium structure proved to be a barrier to inclusion. Leaders from the South pressured SF to adopt a new model of affiliation (I20, I1) that would allow those working on projects that align with SF principles to be officially counted and represented in the movement. As one Councillor put it: "where we come from, in [Africa], a single individual was paying membership, but representing a larger group. So instead of us saying that we have five paid-up members (…), we can now say we have 1000 members, though not necessarily paying members, but they are doing other things. They're using and following the [Slow Food] philosophy; they are participating in activities" (I9; also I4 and I12). Loosely organized "food communities" allow membership status and coordinated efforts under the SF umbrella. This expanded membership through communities translates into greater representation of the Global South at SF Congresses (I26).

A SF community forms around a particular set of activities, goals, or a project within a local area. The community takes a name that indicates its focus as well as the locality represented and generally cooperates with convivia to support the international network's strategic projects (such as the Presidia, or global campaigns). Although communities represent smaller and more targeted aims, SF affirms that "[B]ased on the decisions taken in Chengdu, convivia and communities will have equal dignity and the right to speak within Slow Food. Slow Food's policies will be developed with equal attention and listening equally to both structures" (convivia and communities) (Slow Food, n.d.i). In short, the community model allows SF to unite diverse efforts—both short and long term—that advance the goal of good, clean, fair food without becoming tied down to bureaucratic strictures of chapter organizations whose members must pay dues.

Our interviewees universally understood the shift as one way that SF can be inclusive at the structural level in the face of economic disparities between the North and South. To be sure, the change in organizational structure does not erase power differentials inherent in the global economic landscape, but it does allow for greater representation in movement Congresses and leadership (I4, I13). We also note that this new organizational structure is part of ongoing efforts to enhance the representation of marginalized groups. SF has long addressed economic inequity by funding the travel of delegates from indigenous communities and those in the global South – a vital practice according to many of our interviewees (I1, I9, I20). Also, whereas years ago Africa was represented by only one International Councillor, there are now several, which is significant since International Councillors vote on the leadership and direction of the movement (I4). At the most recent SF International Congress in 2022, Edie Mikiibi, from Uganda, became the President of Slow Food, a position previously held only by founder Carlo Petrini. These efforts to overcome some of the barriers that prevent the equal representation of the Global South can be understood as an effort to address the obstacles that distance and diversity create (Nicholls, 2009). Additionally, these intentional efforts by the SF movement are cosnsistent with the fourth indicator, which pertains to having diversity in leadership. Because it is intended

to amplify the voices and enhance the representation of SF movement praticipants in the Global South at SF Congresses and other entities within the movement that have a strong influence on decision-making, the addition of communities to SF's structure is evidence of the presence of the fourth indicator of active solidarity. By ensuring the equal representation of the Global South at Congresses and the International Council, the SF movement may also be taking steps towards ensuring that marginalized communities will be better positioned to express dissent and define the rules that govern participation and decisionmaking, which aligns with the fifth indicator.

Impacts and Effects of Active Solidarity: The Example of Indigenous Terra Madre (ITM)

What then has been the impact of SF's efforts towards active solidarity with rural populations and indigenous groups, especially in the South? First, SF has become recognized as a leader in working with indigenous peoples and has been able to partner with other international organizations working in rural development. The development agency staff we interviewed perceived SF as having developed long-standing and effective partnerships with indigenous communities, as we discuss below. Indeed, the continued opportunities that SF has had to partner with development agencies and with indigenous communities clearly reflect the enhanced legitimacy of the movement, which is consistent with what the active solidarity literature has maintained.
In 2012 SF founder and president Carlo Petrini was invited to address the United Nations Permanent Forum on Indigenous Issues (UNPFII) session on the issue of food sovereignty and the right to food. He was the first invitee not representing an indigenous group, the United Nations, or a government (Slow Food, 2012). We consider this invitation to be evidence of SF's legitimacy and of UNPFII's recognition of SF's commitment to indigenous communities. We also believe it is indicative of the positive impacts that a commitment to meaningful forms of inclusion can have on the effectiveness and political influence of a movement, as discussed by the scholars who elaborated the concept of active solidarity. More significantly, SF's commitment to meaningful solidarity and inclusion has been effective in fostering trust between indigenous groups and the SF movement, and has allowed SF to partner with IFAD to advance its agenda and goals by working with indigenous communities (Slow Food, n.d.j). Once again, this is indicative of some political influence and is consistent with what the active solidarity literature posits.

From our interviews with coordinators at international development and philanthropic organizations, we have learned that these organizations appreciate SF's networks, its membership model, and its Presidium projects. What they have told us provides further evidence of SF's international legitimacy. While UN agencies work with and through governments, SF's local networks help identify community partners for development projects. SF's networks and membership are long term and not dependent on one funded project. In addition, SF participants are viewed as members, not beneficiaries – unlike all too many cases in the development world. As one UN agency coordinator noted, "in Slow Food, there are these local sections. People are members. They are seen as equals and they are being strengthened as that, and they are given a voice in the events and other activities that Slow Food is organizing. And that I think, is very good in that it gives them also a lot of confidence and allows them to speak to their local governments and to industry leaders in a way that is very different than if they were just a small community from some area" (115). Other interviewees (117, 127) concurred that participation in SF builds indigenous groups' political confidence and capacity. Political empowerment is, therefore, another impact of SF's engagement with indigenous communities. Participation in SF networks and indigenous Presidia can put indigenous groups in a better position to interact with governments (115; 121, 122). Additionally, through SF, indigenous leaders gain access to other international forums like the United Nations or the International Indigenous Women's Forum (117) where indigenous issues and concerns are voiced.

Another example of the impact of building solidarity with indigenous communities is the development of a locally and collectively controlled certification system for indigenous products. SF has piloted the use of a Participatory Guarantee System (PGS) for indigenous Presidia (110). The PGS is an alternative to third party certification systems for quality assurance and further development of the Presidia programme. Third party

certification can be costly and bureaucratic, and the certification process is standardized, led, and controlled by external actors. A PGS, by contrast, is a community-based system designed to ensure that products meet "good, clean, and fair standards" using a process that is defined and controlled by local stakeholders and that is based on trust within local social networks (Slow Food, 2020c). SF and IFAD piloted a PGS in two indigenous Presidia, one in Mexico and one in Kenya: "Slow Food and indigenous leaders were interested in adopting a bottom-up system to ensure that products are good, clean and fair with minimal intervention from Slow Food headquarters. This grassroots initiative would give local areas almost complete independence, be resilient over time and would add international credibility and value to the Slow Food system, in particular to the Presidia project" (Slow Food, 2020c). Through the PGS, local communities gain greater control of their participation in the Presidia. While the PGS model is not unique to SF, its application to indigenous presidia (and its later expansion to the SF Coffee Coalition), speaks volumes about the ability of SF to adopt alternative approaches and adapt them to its work in innovative ways. This is also consistent with the impacts that the active solidarity literature posits will result from intentional efforts to foster solidarity.

The Presidia also offer additional advantages to some indigenous communities. Some Presidia focus on fostering leadership based on traditional systems and on traditional leadership forms and structures. The aim is to create a local actor that can define community-wide priorities and have a place at the decision-making table (I18) in conversations with local and national governments.

Valorization, revitalization, and celebration of indigenous cultures and sense of identity

Our interviews highlighted the ways that SF's efforts to celebrate and revitalize indigenous cultures have had positive impacts on indigenous communities.

Indigenous Presidia valorize and enhance the visibility of indigenous products (I15); they contribute to cultural valorization and preservation, and to social development and sustainability (I19). The Presidia model, based on the local ownership principle, strengthens local identities and fosters pride (I22, I17), and participation in the indigenous network can help indigenous groups rediscover their identity as food producers (I18). Involvement in the indigenous network can also strengthen communities and engage youth, thereby preserving traditional knowledge (I15) and fostering new leadership (I22). Finally, some interviewees noted that SF adopts an asset-based approach focused on potential and opportunity (as opposed to a problem-based approach) in engaging indigenous communities (I23), and encourages communities to leverage their own resources (I22). Valorizing indigenous knowledge (I22; I18) was also emphasized by our interviewees.

Indigenous Rights and Self-determination

SF builds solidarity with indigenous communities by allowing them to define the terms of their participation. They thereby shape the movement in ways that centre indigenous struggles for autonomy and self-determination. This, as noted below, allows the SF movement to be more influential by offering alternative ways and venues for addressing politically sensitive and contentious issues. Such autonomous spaces align with the framework for establishing active solidarity.

One way in which SF furthers the self-determination of indigenous peoples – a key principle of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) (I22) – is by allowing local groups to self-organize and lead SF work, without prescribing a specific model for carrying out this work (I23). One interviewee noted that SF has a respectful attitude towards indigenous communities and is eager to learn from them (I23). Moreover, two different development partners form very different organizations made similar points about the contribution of SF to upholding indigenous rights and the right to self-determination. One explained that SF provides a different "entry point" (I24) or a "different space" (I24) and a venue less fraught with conflict (I24) to address critical and politically charged issues that indigenous communities face, such as land rights or the right to self-determination (I24). The focus on food and biodiversity provides another way

to address the politically contentious issues surrounding indigenous rights (e.g., land rights). The other one noted that SF represents an approach to building solidarity by asking local groups to self-organize, and that this local work is "tied to larger struggles for sovereignty" (I25). This is an example of how active solidarity can broaden participation and create opportunities for political influence in ways that are consistent with active solidarity.

Conclusion

Our initial research questions revolved around how a diverse movement can build meaningful solidarity and be truly inclusive. In applying the active solidarity framework to the SF movement, we find examples that illustrate the intentional effort of SF to build active solidarity. These efforts include official statements, such as the Declaration of Chengdu, that celebrate diversity in membership and leadership (Slow Food, 2018). Organizationally diversity goes beyond representation, by incorporating mechanisms for inclusion through the creation of autonomous spaces for marginalized groups, such as ITM, and through the removal of barriers to participation in the movement and its leadership. We consider these efforts to be important steps even as we acknowledge that building solidarity is a long process (I13) and can be "complicated" (a word used several times by one of our interviewees, I2).

We also considered the nature of SF as a movement. As it expanded globally, SF had to explicitly address a variety of issues pertaining to food and agriculture policy, the right to food, and global justice. Our respondents emphasized the movement's origins as a "wine and dine club" (I1, I4, I8). One Councillor commented that SF had been "an elitist movement that was exclusive and it was handled by a bunch of chefs from [the city]." Now, he explained, "…we helped open the movement to anyone, to indigenous communities, to young people, to women" (I1). The categorization of SF as a lifestyle movement may have been more accurate in the past. The contemporary SF network has evolved to become a social movement with a more explicit political agenda.

This evolution is quite relevant to the issue of solidarity. Our respondents saw it as a requirement for (and consequence of) the expansion of the movement to include areas outside of Europe or the West more generally (I4). While there may always have been political aspects to SF, it had to engage directly with issues such as climate change, GMOs, and land grabbing to expand and build solidarity worldwide (I4, I7; also, I12). This finding is also relevant for the study of social movements, including the question of how a social movement evolves and changes over time.

More specifically, some of the previous research that developed the concept of active solidarity has focused on more recent movements (e.g., the 2017 Women's March) or protest waves that for a variety of reasons were relatively short in duration (e.g the Gezi Park protests). This article focuses on a case that can be studied over time using the concept of active solidarity. The case study in turn deepens our understanding of the concept by elucidating how it may unfold in practice over time. By analysing a movement over a long period, we can also contribute to the active solidarity literature with some perspectives on how a social movement's intentional efforts to foster active solidarity impact its trajectory and evolution.

Additionally, not all of the examples and cases discussed in the active solidarity literature that we cite are transnational social movements, and those that are considered are discussed briefly as one of several examples in each source. Our study provides a more in-depth discussion of one transnational social movement, allowing us to more deeply and comprehensively examine issues of active solidarity in transnational contexts. This can contribute to the development of the concept of active solidarity.

While this article has focused on the global SF movement, future research could deepen our insights into processes of building active solidarity, by focusing on SF's work in specific countries. It could investigate the ways in which these efforts are tailored and respond directly to the challenge of fostering equity, justice, and

inclusion in specific contexts that are characterized by more idiosyncratic forms of injustice. Additionally, future research that included surveys on SF participants' understanding of solidarity would provide important additional perspectives that are not represented in this article, which is based on interviews with SF leaders and partners. Finally, comparative studies of other highly diverse transnational social movements or advocacy networks, that focused on issues not connected to the food system, could further advance research on active solidarity, the ways it can intentionally be prioritized, and its implications for networked activism. Examples of such networks include Girls Not Brides, Women's International League for Peace and Freedom, and the International Action Network on Small Arms.

Appendix

Note 1: In the article interviews are referred to by the letter "I" and a number (e.g., I1, I2, I3) corresponding to the list of interviews below.
Note 2: The International Councillors we interviewed were not all members of the International Council (IC) when we interviewed them and may not currently be members of the IC.

Interview 1 (I1): In-person interview with International Councillor, 18 September 2018
Interview 2 (I2): In-person interview with International Councillor, 19 September 2018
Interview 3 (I3): In-person interview with International Councillor, 19 September 2018
Interview 4 (I4): In-person interview with International Councillor, 21 September 2018
Interview 5 (I5): In-person interview with International Councillor, 21 September 2018
Interview 6 (I6): In-person interview with International Councillor, 21 September 2018
Interview 7 (I7): In-person interview with International Councillor, 21 September 2018
Interview 8 (I8): In-person interview with International Councillor, 22 September 2018
Interview 9 (I9): In-person interview with Slow Food leader from Africa, 23 September 2018
Interview 10 (I10): Zoom interview with Slow Food International staff member, 20 April 2021
Interview 11 (I11): Zoom interview with International Councillor, 10 May 2021 (follow up with I1)
Interview 12 (I12): Zoom interview with Slow Food International staff member, 11 May 2021
Interview 13 (I13): Zoom interview with International Councillor, 11 May 2021 (follow up with I3)
Interview 14 (I14): Zoom interview with International Councillor, 13 May 2021 (follow up with I6)
Interview 15 (I15): Zoom interview with IFAD staff member, 21 May 2021
Interview 16 (I16): Zoom interview with IFAD staff member, 8 June 2021
Interview 17 (I17): Zoom interview with Indigenous Terra Madre Advisory Board Member, 14 July 2021
Interview 18 (I18): Zoom interview with indigenous Presidium partner, 8 September 2021
Interview 19 (I19): Zoom interview with indigenous Presidium partner, 10 September 2021
Interview 20 (I20): Zoom interview with Slow Food leader from Africa, 17 September 2021
Interview 21 (I21): Zoom interview with Slow Food leader from Africa, 20 September 2021
Interview 22 (I22): Zoom interview with IFAD staff member, 21 September 2021
Interview 23 (I23): Zoom interview with IFAD staff member, 5 October 2021
Interview 24 (I24): Zoom interview with IFAD staff member, 11 October 2021
Interview 25 (I25): Zoom interview with Slow Food Turtle Island partner, 14 October 2021
Interview 26 (I26): Zoom interview with Slow Food International staff member, 18 November 2021
Interview 27 (I27): Zoom interview with Indigenous Terra Madre Advisory Board Member, 29 November 2021

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