THE LAND CONNECTION

Identity Narratives and the Adoption of Conservation Practices by Commodity Farmers

Background

- Adoption of conservation practices historically a slow process
- Research has raised many unanswered questions about farmer motivations
- Literature identifies occupational identity as an unexplored motivator
- Occupational identity a relatively "black box"

Purpose and Objective

- To understand more about the role of occupational identity as a motivator in adoption of conservation practices by commodity farmers
- To provide recommendations for educators on how to identify opportunities and mitigate barriers in the adoption process

Methods

- 20 in-depth interviews with commodity farmers in Central Illinois
  - 18 in-person interviews (one via phone and one via Zoom due to COVID-19)
- Single proprietors of family farms or shareholders in family farm corporations
- All male
- Varied levels of use of conservation practices
- Varied age range and farming experience

A Surprise!

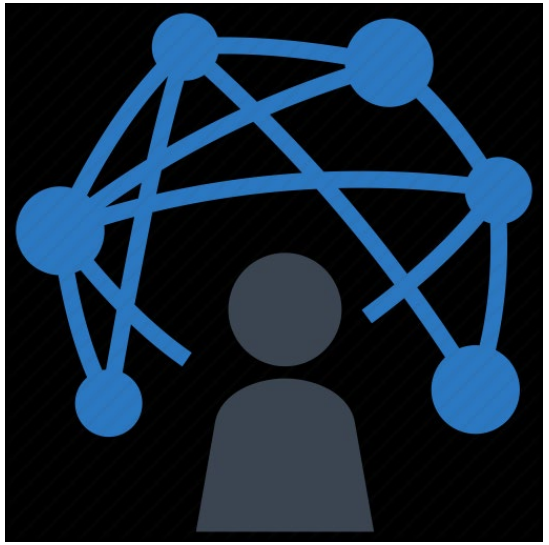
Assumed we would find clear differences in the identity narratives of farmers who had adopted a relatively high number of conservation practices and those who had not. Found little difference. Led us to propose identity as a reflection of the how farmers interact with the industrial agriculture system rather than as a driver of their behavior.

Conceptual Framework – Actor Network Theory (ANT)

- ANT focuses on the movement of power and influence in a system or systems created by interactions among people, technologies, objects and institutions in the system (Callon, 1986; Law, 1992; Latour, 2005;)
- Individual decisions facilitated or constrained by the system
- Farmer identity is dynamic: continuously defined and redefined
- Farmer identity "stories" illuminate the system and the decision-making context

System has Constraints/Limits

Most of elements that affect a farmer's decision about a proposed conservation practice are already in place in the system at the time it is introduced



Literature on Farmer Identity Narratives

- Must feel authentic to the farmer and resonate with powerful actors in the system
  - Illuminate how farmers negotiate the system in industrial agriculture (Gray and Gibson, 2013)
  - Identify the sources of power in the system (Gray and Gibson, 2013)
  - Change continuously; new practices requires new narratives (Everett and Rodgers, 1995)

Shared Farmer Identity - Overview

- Autonomous or "independent" risk-takers day-to-day, adapters in the larger context
  - Tactical vs. strategic: deciding what to do and when to do it, based on their reading of the system at any given time
  - Expert interpreters of information
  - Challenged and energized by synthesizing information from many sources and making decisions
    - A series of yearly cycles gives the farmer an opportunity to "go again"
  - Service providers and other "experts" help farmers to interpret the changing environment and learn how to use new technologies

Example of Cover Crops

In the analysis used cover crops as a practice of reference because some farmers had implemented or were in the process

Sources of Power and Influence in the System

- Land and landlords who control it
- Technology and equipment
- Labor

How do they create a system that slows
the adoption of a beneficial conservation practice such as cover crops?

Increasing Farm Size – Scarce Land

- Farms will continue to increase in size due to "advances" in technology and shrinking margins
  - Most farmers could operate more acres than they have access to
  - Farmers in the same geographical area compete with other farmers for more land

Landlords Control Land Access

- The sunk investment in equipment makes loss of land and the inability to control more land one of the biggest risks of farming
- How farmers are viewed by current and prospective landlords (and their farm managers) and retiring farmers who offer their land for rent was of utmost importance to them

More on Landlords

- Farmers shared many tips on "handling" landlords and farm managers:
  - Need to appear competent to landlords and farm managers; to talk their language
  - Don't want to do anything that would make the farmer look unreliable
- According to farmers:
  - Landlords' highest priority is a steady stream of money
  - Pay "lip service" to conservation

High Yields as a Symbol of Farmer Fitness

- Yield is a proxy or "symbol" of profitability
  - Successful farmers have high yields
  - High yield is "proof" that a farmer is competent and will be able to pay high rents over the longer term
  - Untested practices that could negatively affect yield are risky and approached with extreme caution
    - Fears that profits are actually at risk
    - Fears that profits appear to be at risk; the farmer is "desperate"

Functional Concerns

- Machinery, equipment and technology investments define a dominant set of practices
  - Most of the farmers did not have the needed equipment for planting cover crops
- All new production practices have risks at first
  - Takes time to work out the issues; i.e. cover crops--turnips frozen hard as rocks
  - Unless farmers see it demonstrated by someone like them on land like theirs, they are not convinced there won't be problems

Travel Time Increases Complexity

- As farms grow in size, the distance between fields increases the time and complexity of adding practices which require additional trips over the field and must be timed to accommodate weather conditions
  - As the investment in machinery rises, margins shrink, and efficiency is key
  - Farmers typically travelling 15 to 25 miles between their farthest fields. One was traveling 70 miles (a 45 mile radius)

Labor is Scarce

- Highly skilled labor is a scare commodity which places limits on family farm operations
  - Family members composed ownership of the farm operation and/or farm corporation of our sample
  - Farmers themselves did most of the farm work—both management and day-to-day farm work
  - Fewer and fewer people in the community have farm backgrounds—no experience operating machinery and equipment
  - Farmers had difficulty hiring employees with the skill levels needed for the current technology

Anything that requires additional labor is a barrier

Farm Family Labor and Involvement

- Family is intertwined with farmer identity, though to a much lesser extent than it has been historically
  - Farm corporations in sample composed almost exclusively of family members
  - Immediate family tended not to be involved in the day-to-day work of the farm – have other jobs and activities
  - Families increasingly live off-farm the farmstead, even in the city
  - Immediate and extended family members often "help" at harvest
  - Level of technology makes equipment more difficult to operate

Conservation Practices in the System

- Farmers said they are "not against conservation"
  - Conservation practices needed only for steep land
  - Denied water quality issues
  - Continuing high yields demonstrate that soil quality is good
  - Conservation was outside what it means to be good farmer and/or an ethical person (good farmer has high yields)

Our Example: Implementation of Cover Crops

Why would famers implement cover crops?

Barriers and Opportunities

Barriers

- Concerns about functional issues
  - Learning curve creates risk; could impact yield
  - Don't have the needed equipment
  - Timing and distance creates complexity
  - Labor is scarce
- Landlords generally don't prioritize conservation; the risks and costs are borne by the farmer

- Opportunities:
  - Financial incentives
  - Increasing interest from some farm managers (when it improves farmer access to land)

Conservation Practices – Barriers and Opportunities

- What could be done to simultaneously mitigate the barriers and enhance the opportunities?

Final Recommendations

- A multi-pronged approach to facilitate the adoption of conservation practices which:
  - Considers the sources of power and influence in the system
  - Addresses functional concerns (machinery, equipment, labor, time, etc.)
  - Reduces risk with relevant/local demonstrations and tips
  - Provides system actors with resources to explain the practice to others

Three-Step Program Development Process for Introduction of Emerging Conservation Practices

1. Listening and observing to situate farmers in an evolving industrial agriculture system composed of people and things
2. Analyzing how system factors interact to create risks, barriers and opportunities which can slow or speed the adoption of conservation practices
3. Developing programs designed to mitigate risks and optimize opportunities created by the system