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Newspaper coverage of controversies about large-scale swine facilities in rural communities in Illinois¹

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ABSTRACT: The building and expansion of large-scale swine facilities has created considerable controversy in many neighboring communities, but to date, no systematic analysis has been done of the types of claims made during these conflicts. This study examined how local newspapers in one state covered the transition from the dominance of smaller, diversified swine operations to large, single-purpose pig production facilities. To look at publicly made statements concerning large-scale swine facilities (LSSF), the study collected all articles related to LSSF from 22 daily Illinois newspapers over a 3-yr period (a total of 1,737 articles). The most frequent sets of claims used by proponents of LSSF were that the environment was not harmed, that

state regulations were sufficiently strict, and that the state economically needed this type of agriculture. The most frequent claims made by opponents were that LSSF harmed the environment and neighboring communities and that stricter regulations were needed. Proponents' claims were primarily defensive and, to some degree, underplayed the advantages of LSSF. Pro and anti-LSSF groups were talking at cross-purposes, to some degree. Even across similar themes, those in favor of LSSF and those opposed were addressing different sets of concerns. The newspaper claims did not indicate any effective alliances forming between local anti-LSSF groups and national environmental or animal rights groups.

Key Words: Community Reaction, Controversy, Hog Waste, Newspapers, Odor, Swine

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Introduction

The original laboratory and engineering work that allowed farmers to move from pasture to confinement was well underway in the 1950s. Farmers began moving to confinement virtually immediately, and such operations grew steadily over the next several decades (Albrecht, 1997, 1998). After Murphy Farms in North Carolina was established (Thompson, 2000) in the 1990s, large-scale hog operations quickly spread to more traditional hog-growing states. Although the increase in large swine units was actually an outgrowth of decades of development, industrialized hog farms were seen as a new — and by some, a highly unwelcome — transition

from “family” to “industrial” farming. As a consequence, the building of large facilities led to considerable local controversy and protest (Thu and Durrenberger, 1998; Johnsen, 2003).

Social movement theory suggests that the arguments advanced by a specific movement dramatically affect the ability of activists to recruit supporters (Snow and Benford, 1988). If, for example, anti-large scale hog activists used the argument that the transformation of the hog industry is yet another example of the big guy forcing the little guy out of business, they are essentially using the argument of 19th century agricultural populists (Mooney and Majka, 1995) and are likely to appeal to the same groups that populists appealed to—local farmers under economic stress. Conversely, opponents of large-scale hog operations could use arguments that appeal to the concerns of the 20th century environmental and animal rights movements, arguments that usually appeal to individual preferences on how to treat the environment and/or animals. (Typically, people who must balance economic concerns with environmental/animal rights concerns are willing to accept or believe it necessary to accept more harm to the environment or animals to ensure an acceptable income.) However, if large-scale hog farm opponents focus on these prefer-

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ence issues, they would have more appeal to national groups, who largely do not see themselves as dependent on agriculture for income.

To date, no analysis of the claims made about large-scale hog farms by anti-farm activists has been done. The purpose of this study was to examine how local newspapers in one state covered the transition from the dominance of smaller, diversified swine operations to large, single-purpose pig production facilities.

Materials and Methods

In Illinois, the most dramatic changes in the growth of industrial farms were between 1992 and 2002. According to NASS (1992), 13,433 Illinois farms carried 5.61 million hogs and pigs. Of these, 1,368 farms had $\geq 1,000$ hogs and pigs per farm, collectively 2.9 million animals. That is, this 10% of the farms produced 52% of the Illinois inventory of hogs. By 2002, the number of Illinois farms with swine dropped to 3,929 operations, with a total of 4.1 million swine (NASS, 2002). The 970 farms with $\geq 1,000$ swine, however, carried 3.3 million hogs, 82% of the Illinois total. The pertinent period for conflict over the introduction of large-scale swine facilities (LSSF) was then assumed to fall between 1992 and 2002.

Newspapers were chosen as an indicator of public discourse concerning LSSF. Newspapers were used over other methods because community members have common access to this particular medium. Illinois counties were separated into those that did not and those that did have a large-scale swine facility ($>1,000$ animals) sited or proposed as of January 1998. A list of all daily newspapers in these counties was constructed, and, using a table of random numbers, 22 daily newspapers were selected. These newspapers ranged in circulation from 3,500 to 700,000. An initial sampling of five newspapers looked for stories on intensive swine production from 1990 onward by physically scanning all newspapers in the sample. No stories were found before 1995. An additional search of Illinois newspapers on a computerized database of newspaper articles (Lexis-Nexis) also found no stories. Newspaper articles regarding LSSF were collected from each of these newspapers for the period from June 1995 through December 1998. Between June 1995 and December 1998, 22 newspapers yielded a total of 1,737 articles concerning LSSF in some fashion or another. The mean number of articles per newspaper was 79, with a range of two to 196 articles.

By 1998, virtually no new types of claims were added in stories, which indicated a relative stability in the overall arguments used by both proponents and opponents to characterize hog farms. To check whether this stability continued, five papers out of the data pool were selected at random. One of these papers was no longer available. The remaining papers were hand-scanned for additional claims from 1999 to 2002. Out of these, 44 articles were found, a mean of 11 articles per paper

over the 4-yr period, with a range of five to 21 articles. Only three new claims were identified, specifically that LSSF hurt communities aesthetically, hurt reputations of communities as a viable place to live, and decreased community tax bases. These claims were repeated several times each. One additional argument, printed in a letter after September 11, 2001, claimed that monoculture farming jeopardized the nation's strategic safety by exposing the country to the risk of "total loss of specific food sources." Thus, overall, there is little evidence that the claims changed substantively from the earlier (1995 to 1998) period. Two new types of stories were observed in this extended period, specifically reports of research on swine odor and reports of legal proceedings (e.g., violation of state EPA standards). However, the vast majority of all stories in both the initial and the extended data collection periods concerned specific proposals to locate swine facilities in local areas.

Data Analysis

The newspaper articles were entered verbatim into a qualitative data package (Ethnograph V; Qualis Research Assoc., Denver, CO). The articles were coded for claims about the advantages and disadvantages of LSSF using a procedure that connected a descriptor code such as "swine odor" to a specific segment of the newspaper text, such as "the smell was so bad that we couldn't have the party." A claim is defined as a specific statement that could be read as an assessment of the characteristics—either positive or negative—about LSSF. The method used to develop the list of specific types of claims was the open-coding scheme described by Strauss and Corbin (1988) on developing grounded theory (also described in Krippendorff, 2004). Such an approach allows the codes to be developed during the process of analyzing the data. So to continue with the previous example, the claim "the smell was so bad that we couldn't have the party" was coded as "anti-LSSF"; similarly, the claim "provides jobs for the community" was coded as "pro-LSSF." When a pattern emerged that grouped claims along a consistent theme, the claims within the theme were further subdivided into a more precise descriptive set. To continue with this example, claims such as "the smell was so bad that we couldn't have the party" and "provides jobs for the community" were common enough that they were divided into distinct sets called "hog odor" and "community benefits."

All claims were double-coded by two coders, and any disagreements were resolved by reviewing claim sets for internal consistency. Ethnograph 5 allowed segments of the original text to be pulled by using attached claim codes so that all text segments labeled (for example) "hog odor" could be compared for consistency across time and across newspapers. In addition, the author, who comes from a farm background, read the claims a third time to check for consistency and for any additional interpretations that might change according to

Table 1. Newspaper argument themes favoring and opposing large-scale swine facilities (LSSF), by frequency

Claims supporting LSSF	Frequency	Claims opposing LSSF	Frequency
General		General	
Large-scale swine farms are good	6	Large-scale swine farms are bad	0
Physical effect		Physical effect	
Environment	414	Environment	1,123
Good for environment	36	Bad for environment	701
No/low effect on environment	236	Odor	422
No/minimal smell	52		
Better management decreases risk	90		
Minimal health risk	8	Health risk	121
Community	135	Community	424
Will bring job benefits	33	LSSF are bad for the community	280
No disadvantages	100	LSSF hurt community cohesion	144
Other	2		
Economy	305	Economy	59
LSSF is good for the state	114	Small operations are good for local economy	31
LSSF is necessary	191	LSSF are not viable	4
Farming structure	267	Farming structure	387
LSSF are better farms	141	LSSF are industrial	161
Support the next generation	75	LSSF hurt small farmers	221
Not worse than small farms	51	Agricultural policies favor corporate farms	5
Moral reasoning	32	Moral reasoning	19
Miscellaneous	32	Miscellaneous	5
		Animal rights	14
Regulations	502	Regulations	475
Current regulations are enough	404	Need additional regulations	475
More regulations are too much	70		
Other	28		
Miscellaneous	127	Miscellaneous	45
Good for consumer	29	LSSF have great impact	29
Claims associated with character of individuals	98	Other	16
Total	1,796	Total	2,653

farm background. In the third reading, only seven of >4,400 claims were regrouped as inconsistent with the overall description of that code set.

Results

Pro Claims

Collectively, newspapers reported both positive and negative claims with six distinct themes: community impact/location, economy, environment, ethics/morals, farm structure, and legal/regulatory. The most frequent sets used by proponents of LSSF were claims relevant to the following: 1) the physical effects of LSSF on the environment, 2) a state-level controversy over LSSF regulation, and 3) the state's economic need for this type of agriculture (Table 1). The more frequent claims that opponents invoked were 1) the impact of LSSF on the environment and neighboring communities and 2) the need for legal or regulatory restrictions on LSSF.

Environment. The single largest number of claims, slightly <25% of all claims made, was about the environmental impact of this type of farming operation. Most are negations, countering opponents' claims that LSSF will have significant negative effects on the environment. The two primary tactics that proponents use are oppositional statements and management claims. The first, oppositional statements, also are divided into two

subtypes. The first subtype concerns the actual effect of odor on the aesthetics of the environment, such as, "The smell near the lagoon was unpleasant, but not overpowering" and "While there are some days that the smell is bad ... most days there is no strong odor." The second subtype consists of claims about the likely effect of the odor given the moral nature (e.g., "good quality people"), positive intent (e.g., "We want to be good stewards"), or technical skills (e.g., "high quality") of the people managing LSSF.

The difficulty with both oppositional and management types of claims is, first, that they are not convincing arguments against a variety of possible exceptions: accidents, natural disasters, or a change in circumstances (e.g., a financial downturn that does not allow for repairs or staying technologically advanced, or changes in management, or increasing age of operator). Second, arguments that an event will not happen are difficult arguments to sell because, by definition, they point to events that have not happened. And finally, claims that a risk is low do not offer any concrete present benefit to offset the potential risk.

In fact, only one claim set about the physical effects of hog waste on the environment points out a benefit from the operation: manure generated from swine facilities could provide excellent fertilizer. Given the beneficial qualities of manure for soil health and for fossil fuel conservation (decreased use of commercial fertilizer), it

is relatively surprising that only 10 of >1,796 claims supporting LSSF dealt with any advantage of using manure as fertilizer, and the only benefit mentioned was the “tremendous economic value” of the manure.

Arguments on Economics/Farm Structure. Roughly 15% of all claims made favoring LSSF were about the economic advantages these operations brought to the state, towns, and pork producers. Sources used in newspaper articles said that LSSF would bring revenue to the township, county, and school district; that these operations would provide a new source of jobs; and that “supplies will be bought locally.” Commonly, claims about the advantages of new facilities were extremely specific: “Cass County facilities will pay \$500,000 in salaries and benefits” or “Prairie Views is expected to employ more than 120 people and be one of the largest taxpayers in Fulton County, contributing more than \$500,000 annually with about \$300,000 going to area schools.”

An additional stream of claims pointed out that farmers are an important part of the Illinois economic base and that agriculture is a better approach than other options (such as tourism). Sources also made claims centered on the relative good of the facilities, such as: “The fact is the opportunities and economic values they bring into the state far outweigh the problems,” and “[LSSF] . . . helped revitalize economically depressed areas with new jobs at their hog plants.” The LSSF proponents also clearly delivered the message that “what is at stake is nothing less than the future of the state’s livestock industry.” Advocates for the industry argued that 1) the industry needed to grow to remain competitive in the market nationally and internationally, 2) the industry structure was changing and Illinois needed to respond to these changes; and 3) Illinois could lose its pork industry.

Farm Structure. Three-quarters of proponents’ arguments relative to farm structure dealt with claims that LSSF are better and easier to manage than small-scale operations, that LSSF attract younger farmers, and that the likelihood of problems depends on the skill of the manager rather than the design of the facility. The rest of the claims about farm structure flatly contradicted opponents’ claims (discussed later), saying that LSSF are really no different from, and are certainly not bad for, small-scale swine farms. Both types of swine facilities, large-farm proponents argued, are essentially dealing with the same types of problems, and both are agricultural. Although few say so directly, these arguments counter opponents’ claims that the new farms are industrial, not agricultural, and so should face different regulations. A very few claims (<5) argued that large farms are not forcing smaller farms out of business.

Large-scale swine farm supporters claimed that LSSF are better for a variety of reasons. Large swine farms, they said, are “more efficient” (e.g., produce pigs all year, are more comfortable for pigs and produce larger, healthier litters). Further, the LSSF supporters claimed that more advanced technology allows cleaner

and more efficient management. That is, operating with modern technology is easier on the farmer, better for the animals, and allows better solutions to environmental problems. Finally, LSSF supporters claimed that larger operations are more rational because economies of scale mean lower production costs per animal. Large-scale swine facilities, in fact, are part of the “natural evolution” of the swine industry, and they are needed to keep the industry successful.

The large-scale farms also are important for maintaining a farm population, proponents said. Large operations are a way to help the next generation of farmers enter into farming, as shown in the following, reasonably typical, quote: “It’s a way of doing business that allows me to pass things on to my sons,” said Steve Fogelsong.” Contract farming was specifically mentioned as a way to decrease risk and to lock into a predictable structure. Such financial practices also allowed current farmers “to continue in the swine business,” and to “stay home and work on the farm instead of taking another job in town.”

Legal Structure/Regulation. The pro-hog production expansion advocates also made a series of arguments that the facilities, as proposed or as being built, would meet or exceed existing guidelines and that producers were working with government agencies to meet the guidelines. In essence, these arguments assumed that the state’s regulations would be enough protection if followed correctly and that farmers should be allowed to build/expand an operation as long as they met state pollution guidelines.

Claims concerning the current legal structure are primarily concerned with events and issues unique to one period in Illinois: a call for a temporary moratorium on swine farm expansion and a subsequent discussion of what regulations would be needed to monitor and enforce environmental safeguards on swine facilities adequately. On the pro-LSSF side, most of these claims are, unsurprisingly, that the current regulations are strict enough: there are good/strong laws regulating LSSF; proposed (or actual) regulations are bad for farmers, the economy, and/or Illinois; and most farmers are adequately handling manure issues with current regulations. Closely associated with legal issues was a relatively small category of claims about moral/ethical issues that were related to the right or need to keep family farms in farming, the rights that farmers have to pursue their livelihood, and the obligation that farmers have to feed the world.

Negatives. In addition to positive claims about the advantages of LSSF, a series of statements were aimed at countering criticisms from residents and activists. The most frequent of these types of claims was discussed earlier (see Environment), but they also included responding to criticisms on being a good neighbor. Proponents pointed out that farming is “a long-term business” and that a production facility operator would be “a long-term resident of the community and steward of the land.” There were only a few claims (<5

overall during the entire data collection period) asserting that there were no health effects from hog facilities.

Claims against LSSF

Odor. The largest concentration of opponents' concerns about LSSF was clearly environmental, and the single largest concern within environment was air pollution (odor). The majority of concerns were aesthetic—how living near swine facilities could affect neighbors' quality of life. The claims about either potential or ongoing odor also included lowered property values, and health difficulties for individuals with compromised immune systems (such as the very elderly), asthma, or depression. Some of these claims are relatively neutral statements about either the potential for or the reality of odor, but a considerable share of claims were highly dramatic (and thus memorable) stories of the effects of odor on neighbors' lives. The following are examples of such:

“I get tired of closing my windows. I get tired of taking my clothes off the line. I get tired of having my kids come in and say, ‘Mom, it smells so bad I can’t play outside.’”

“The stench from nearby hog farms is sometimes so bad that Barbara Dunham takes her sheets off the clothesline, ushers pool parties inside and shuts her windows. With a ‘smell so thick you can taste it,’ she believes that the two large-scale farms, which she can see from her living room window, have driven down her property’s value.”

Water Use and Safety. Sources made both very general and very specific claims about manure’s threat to the environment. On a general level, many sources claimed manure was “a threat” to the state’s water supplies. Specifically, residents and other opponents pointed out that the swine facilities would use considerable amounts of water, possibly more than the area would have available. Sources also mentioned problems with waste from overflows or leaks reaching surface waters (rivers and streams), groundwater, and aquifers; affecting drinking water safety; and threatening scenic river/waterways, soil, and wildlife. Sources also pointed out that a variety of species could be affected: fish, small animal life, and wildlife along rivers and lakes. Most of these claims are of potential damages (e.g., “critics fear [that building large-scale hog operations] will lead to pollution of the state’s air and water”) rather than actual instances of water or wildlife problems. More recent stories (2000 to 2003) were more likely to point to real, rather than potential, fish and wildlife kills. A small subset of claims within water use and safety was specific to a site location. Most of these argued that because of unique factors (e.g., nearby aquifers, sandy soils, or location within flood plains), the particular

location was too environmentally sensitive to risk having a LSSF built.

Laws and Regulations. A large subset of claims by those opposed to LSSF was specifically concerned with whether Illinois needed stricter regulations. As would be expected, those opposing the swine facilities favored enacting stricter codes and felt that the regulations that finally emerged were insufficient. Specifically, opponents felt that the regulations had too many loopholes and did not protect groundwater and health adequately.

Farm Structure. Sources against LSSF also routinely voiced considerable concern about the effect of the large-scale facilities on Illinois farm structure. Large-scale swine facilities, they claimed, are “squeezing family farmers out of business” by making competition harder. One subcomponent of this argument is that what was being lost was a way of life: “These places symbolize the transition of the American farmer from free agent to company employee.”

As a part of the argument that traditional farms as a whole are declining/disappearing, newspaper sources drew on a more complex argument, specifically that the large complex animal units are “industrial.” Scattered throughout most of the newspapers studied were references to LSSF as agribusiness, not agriculture, and as animal factories (not farms). In one newspaper story, for example, a county State’s Attorney made the argument that large livestock farms have “the same type of environmental impact that major industries have” and that “agriculture needs to realize that if the pig farmers want to industrialize, they have to accept the reasonable burdens that come with industrialization in a modern economy.”

Roughly 10% of the claims of sources opposed to LSSF directly contradicted proponents’ claims that LSSF will benefit communities economically, but here opponents were not able to generate the exact convincing details (specific numbers of jobs and property taxes) that proponents were able to marshal. Instead, swine facility opponents made general claims unsupported by evidence that money generated from swine facilities would not stay within the community. In addition, opponents argued that the jobs are low-paying and that the costs to the community (e.g., destruction of local roads and increased traffic; decreased property values; problems with tourism; increased costs to pay for bilingual teachers and other educational infrastructural demands) would be larger than any benefit gained. Finally, there was a scattering of claims from letters, not mentioned in news articles, that factory farms are not really viable, and that their claims of viability come from not being held accountable for the problems they create.

Communities routinely called for increased power over zoning for large-scale facilities and increased protections against long-term risk (e.g., establishing liability bonds to clean up the lagoons so that communities are not forced to pay for spills or other damages “down the line.”)

Another set of claims was that large-scale hog farms will impoverish rural communities. Some of the comments along this line were quite specific—that the LSSF would ruin rural roads and increase traffic, dust, and noise. But there also was a sense that the hog facilities were temporary and were controlled by outsiders who could leave at any point, forcing area residents to take care of any long-term problems.

Sources were uniformly worried that the swine facilities would threaten the quality of rural life. Most of these comments were from neighbors in reference to smell coming from the swine facilities. Commonly, quotes from nearby residents were highly detailed, emotional, and concerned with traditionally protected populations—the young and the old. In addition, sources claimed large-scale hog farms were socially divisive, “pitting longtime neighbors” against one another and agriculture against the community. In towns with particularly high conflict, the sources opposing LSSF made claims—even before LSSF opened—that the hog operators were bad neighbors. This latter charge was often associated with operations that came from outside the community.

Health. As with most of the other claims, charges about health were written by reporters and with a relatively neutral tone, such as stating that opponents were “concerned about what such an operation would do to their ... health.” Most of the direct quotations from residents also were tied to swine odor and argued through analogy that anything that smells so bad must be bad. A few sources included more science-based information, which claimed increased rates of depression, increased respiratory problems, and increased potential for disease from manure.

Ethics. Only a very small number of articles (three) and a few letters (six) contained any claims about animal rights, most of which were concerned with the relatively small spaces in which swine were raised. These articles did not engage the large-scale swine controversy directly.

Discussion

Structure of Arguments

Advocates argued that LSSF would be good (or at least not bad) for the environment and that more advanced technologies, more specialized management, and newer facilities would be less likely than older facilities to emit odors or leak manure into ground or surface water. Proponents also asserted that they held the ethical high ground: farmers have the right to do whatever they want on their own land, so long as they operate within the current system of rules and regulations. The LSSF supporters maintained that LSSF were necessary for the younger generation to stay in hog farming and that those who opposed such facilities were either jealous or did not know anything about these operations. Those who supported LSSF also pointed out that large

farms were better business operations, that they were economically good for the community because they created jobs (and added to the tax base), and that LSSF benefited both state and national economies.

An Illinois state moratorium and a regulation debate at the state legislature triggered a wave of legal/regulatory claims, which were primarily reactions to opponents’ statements about the inadequacy of current laws. The most prominent were that regulations were bad for the swine industry as a whole, including small-scale farmers, whom opponents were thought to support. Arguments regarding the community impacts from LSSF were less frequent and primarily detailed the money and jobs that LSSF would bring to the community.

Those people who were opposed to new or proposed hog farm expansion focused primarily on the potential for environmental impacts. Newspaper articles contained 1,123 claims, almost one-half of all anti-expansion comments, about the risks that LSSF posed to the environment, including air, water, and soil pollution. Only one-third of the environmental claims were about odor; other claims about other pollution—groundwater, aquifers, wildlife damage, etc.—were collectively considerably more frequent.

The second most frequent theme was legal/regulatory. Opponents and proponents were diametrically opposed; opponents of LSSF argued that more laws were needed to control the large-scale operations. Opponents also were concerned about the threat LSSF posed to small(er) farms. In particular, they claimed that LSSF are more akin to industrial factories than to agriculture and that small-scale swine operations are better for the community, the economy, and the environment.

A distinct undercurrent to a variety of comments was that expansion of hog facilities was difficult for communities. Sources were concerned that LSSF were socially disruptive: they went against traditional community values, destroyed the community’s history, violated ethics of neighborliness, and created community conflict. In addition, they were concerned that the community would have to develop infrastructure capacity to handle the effects of LSSF, paying for social services, schools, and health care for migrant workers and cleaning up spills and abandoned lagoons. Those opposed to LSSF also maintained that the large-scale operations had no overall economic benefit for communities because they displaced more jobs than they created, decreased property values, and made alternative industries, such as tourism, less viable.

Critique of Arguments

Claims made by farmers and other supporters were primarily defensive, arguing that LSSF are not environmentally destructive and that the current legal structure, including zoning restrictions, monitoring, and fines, was adequate to regulate the industry. To some degree, these arguments underplay the advantages of large-scale hog farms, such as the benefits that manure

offers soil tilth. Positive benefits are usually more persuasive than defensive ones (O'Keefe, 2002; Perloff, 2003).

Pro- and anti-LSSF groups were talking to some degree at cross-purposes. Even across similar themes, those in favor and opposed to LSSF were addressing different sets of concerns. A typical example was farm structure. The people who opposed LSSF concentrated on large-scale vs. small-scale swine farming, claiming that LSSF are bad for small-scale farmers and that large-scale farms were industrial, not agricultural, and should be treated as such. The LSSF proponents barely addressed these points. Three-quarters of the farm-structure arguments put forth by proponents were claims that LSSF are better and easier to manage than small-scale operations, that LSSF attract younger farmers, and that the likelihood of problems depends on the skill of the manager rather than on the design of the facility. The rest of the proponents' arguments along this theme simply contradict opponent claims, saying that LSSF are really no different from, and are certainly not bad for, small-scale swine farms.

An oppositional form of argument structure, in which primary actors are not engaging each other in constructive debate, does not decrease conflict about hog farms within communities. Conflict within rural areas negatively affects communities for longer than the overtly obvious length of the conflict, and as such, the controversy and conflict itself causes community harm, regardless of whether the large-scale swine farm has a negative effect in other ways (Coleman, 1957; Albrecht et al., 1996; Freudenburg and Gramling, 1992).

The difference between sources who favored hog facilities and those who opposed them was largely a difference in focus. Those who favored large facilities were clearly concerned with the effect of the hog facilities for Illinois as a state, where the sources who opposed LSSF were almost exclusively concerned with the effects of swine facilities on the local level. In addition, those sources who favored LSSF were much more likely than not to focus on the total number of jobs created, the total dollars brought in, and property tax revenues. Those against the facilities pointed out that many of the jobs were low quality and that others were temporary (construction) work. Again, this oppositional form of debate does not decrease conflict nor does it suggest potential resolutions.

Congruence with Movement Arguments

Controversy in agriculture is not particularly unusual. From the beginnings of the republic, small farmers have criticized, organized, and protested. As early as the 1780s, small yeoman farmers were organizing to stop farm foreclosures during a severe depression that followed the Revolutionary War (Stock, 1996). In the 1800s, following the Civil War, organizations such as the Grange (Patrons of Husbandry) and the Farmers' Alliance actively protested market issues, including the

high costs of transporting goods by railroad. Later organizations such as the Farmers' Union, the American Society of Equity, and the Nonpartisan League also addressed the constant marketing and credit problems of producers. At the heart of both waves of farmer protest was a vision of a more egalitarian rural society where the "small guy" could wrestle control from corporations and the federal government and where small producers were valued for what they made rather than what they could buy (Goodwyn, 1978; Stock, 1996). These farm movements made alliances with urban and other rural organizations (e.g., miners) in the populist movement and later as part of the New Deal, but, in essence, the progressive farm movement and the urban progressives were most closely joined at the most conceptual level, the "little guy" against the "big." The specific goals and activities of the urban progressives—sanitation, child-labor laws, urban parks, union rights—were distinctly different from rural movement concerns and from farming in general (Hofstadter, 1955).

In the latter half of the 20th century, however, farmers more commonly were the focus rather than the source of social movements. First, environmentalists questioned the effects of DDT on the ecosystem (Carson, 1962). Then, animal rights activists questioned the morality of confinement agriculture (Jasper, 1992). On the national level, environmentalists and animal activist organizations are actively engaged in the swine-farm controversy. For examples, see the HSUS (2005), the Sierra Club (2005), and Waterkeeper Alliance (2005). But unlike most of the movements of the latter 20th century, which tend to originate in urban areas, much of the active resistance to LSSF has been neighbor against neighbor or at least community member vs. farmer. Further, similar to the movements of the 19th century, the resistance to large-scale farms is in part structural—the "big" vs. the "small" farms.

From the newspaper articles alone, there was little to no evidence that urban-based outside environmental or animal activist groups were acting in concert with local residents. Although environmental issues were a concern for community residents and neighbors, they were primarily concerned with the effect of pollutants in the local areas. The local residents did not refer to outside activities, nor were outside environmentalists quoted in the newspapers. State-wide farm organizations that were promoting local and alternative agriculture, such as the Land Stewardship Alliance, were clearly present and quoted in local newspaper articles, but environmental groups were not. Animal rights claims were extremely rare, and no animal rights activists were identified in the local stories. Hence, it seems that there is little reason to believe, from the newspaper evidence alone, that there is any effective public alliance forming between local anti-LSSF groups and national environmental or animal rights groups. Nevertheless, the lack of newspaper coverage of such an asso-

ciation does not prove that such an association does not exist.

Ending Comments

The claims that newspapers make about local swine farm facilities are important in that what newspapers report is the picture to which the residents of a local community have easy public access. However, care should be taken in interpreting what newspapers say is the clear and accurate picture of the viewpoints of residents of a particular area. For example, although the topic of the environment is clearly a major concern for residents, hog odor itself may not be as large a concern as newspapers suggest. Newspaper reporters ask questions as well as listen to answers, and they routinely ask these questions using an internalized script (typification) of what information they expect the story to include (Tuchman, 1978). So, for example, if a reporter is writing a story about a fire, the reporter (and the reporter's editor) expects that the story will tell whether any people were injured and if so, how badly, how much property damage was done, and so on. Equivalently, if a reporter was covering a story and expected that hog odor would be a concern, it is likely that the reporter would ask neighbors their concerns about (or reaction to) hog odor, which could elicit comments the sources might not have brought up otherwise. In other words, the predominance of information about hog odors might be as much about what the reporter thought the story should include as the relative importance of hog odor itself.

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