

ABSTRACT

LINTON, MARISA DAWN. Activism, Credibility, and Pigs: Measuring Public Perceived Credibility of the Pork Industry (Under the direction of Dr. Joann Keyton).

This study explored how levels of activism related to perceived credibility of the pork industry. Participants in this experiment saw either positive or negative portrayals of the pork industry in news releases to determine if portrayals influenced participants' perceptions of the message and source credibility. The experiment also examined if levels of activism acted as a moderator on source and message credibility. Conducted in the top pork producing states in America, Iowa and North Carolina, the study encompasses a varied demographic to explore how participant's perceptions differed based on what county they reside. This experiment aims to fill a gap in literature by providing a unique perspective of the pork industry. Results demonstrated that what participants read as the stimulus was more influential than where participants lived. While activism was proposed to influence credibility, participant's sex was a stronger influence on activism. Finally, participants report of pork consumption, eating pork does not increase perceived credibility of the pork industry.

Activism, Credibility, and Pigs: Measuring Public Perceived Credibility of the Pork Industry

by
Marisa Dawn Linton

A thesis submitted to the Graduate Faculty of
North Carolina State University
in partial fulfillment of the
requirements for the degree of
Masters of Science

Communication

Raleigh, North Carolina

2016

APPROVED BY:

Dr. Nicholas Taylor

Dr. Dan DeJoy

Dr. Joann Keyton
Chair of Advisory Committee

BIOGRAPHY

I am from Mount Olive, NC. I graduated from Campbell University with a B.A. in Communication with concentrations in health communication and public relations with magna cum laude honors in May 2014. I have a passion for agriculture, and have focused on agriculture throughout my master's program. I have worked with many companies, primarily in the agriculture industry, to develop social media plans, cover and plan events, run campaigns, teach classes, and run PR in the organization.

ACKNOWLEDGMENTS

I want to thank several people for their guidance, support and mentorship. Thank you to my committee chair, Dr. Joann Keyton, for her constant guidance and dedication to this study, but more than that is her impact on me as both a person and a researcher. Thank you also to my committee members, Dr. Dan DeJoy and Dr. Nick Taylor for their feedback and invaluable insight. They were truly a joy to work with. I am also grateful for the entire Communication Department and their positive impact on this entire process. Thank you to the NC Pork Council for their contributions to this study. This would not have been nearly successful without their support.

Finally, I would like to thank my parents and grandparents for their constant support and love, and Isaac, Gideon, and Alec for always making me smile. Thank you to Garrett for always being there. I am incredibly grateful for all of the prayers said by friends and family.

TABLE OF CONTENTS

Introduction.....	1
Literature Review.....	4
Method.....	19
Results.....	24
Discussion.....	26
Recommendations & Concluding Remarks.....	32
References.....	34
Appendices.....	45

LIST OF TABLES

Table 1	State Pork Production Scene.....	43
---------	----------------------------------	----

CHAPTER 1—Introduction

Ranking third in the world for pork production (Quick Facts, 2014), America's pork industry plays an important role in providing enough pork to supply the demand of the most widely consumed meat in the world (Sources of Meat, 2014). In 2014, 26% of pork production was exported to other countries, making America the largest exporter of pork in the world. Japan and Mexico are the biggest consumers of pork exports (Pork Facts). A growing population only increases the demand for pork, and therefore, hog farms and practices have had to evolve to keep up with demand. Despite the fact that less than 2% of the population are farmers (General Facts About Agriculture, n.d.), farmers are now able to feed more with less. In order to accomplish this feat, farms have increased in size and become more efficient through scientific innovations (Moreland & Hyland, 2013). Such innovations in the pork industry include increased growth rates due to better genetics and feeding practices, automated systems that reduce labor, and more successful bio-security that reduces disease. This has also led to healthier animals and pork. Pigs are 16% leaner than they were 25 years ago (Williams et al., 2005), and people worldwide have taken notice. Not only is America the largest exporter, but some organizations in other countries have decided to invest in the American pork industry. In 2013, the largest pork producers and processor in the world, Smithfield Foods, was purchased by WH Group Limited in China. In 2000, North Carolina based hog producer Murphy Family Farms was purchased by Smithfield Foods, making Smithfield the largest producers in the world (Company Profile and History, 2016). These acquisitions caused some disdain from many critics within the American public. Within a decade, a hog company had gone from family owned to corporate, and now foreign-owned. While these

innovations and changes have created a healthier product, improved efficiency, and helped the industry meet the growing demand for pork, they have also led to a gap between consumers and farmers. With 98% of the population removed from the farm scene, the situation has resulted in much controversy between the public and farmers (Croney & Anthony, 2009).

In today's society, there is a movement that revolves around the safety of food and how it is produced. In the midst of the critique of food production and safety are hog farmers and their practices. Activist groups and consumers have voiced concerns and at times strong opposition of the pork industry. This critique has often led to lawsuits and media coverage, especially in regards to food safety, and environmental and animal welfare practices (Brantley, 2013; Bullers, 2005; Pitt, 2013) such as: farrowing crates, euthanization, antibiotic use, lagoon environmental effects, and environmental injustice conflict (i.e., lower income households are situated near the smells of a hog farm). These practices are typically challenged in newspapers, ad campaigns, and television, reaching a wide audience, and cast hog producers as defensive when they are given a chance to speak. The criticisms that are made of the industry and the changes that are desired by the public have severe consequences on the industry, including costly overhaul of facilities, more dangerous working conditions for employees, and an increase in product price that consumers have to pay (Quiroz, 2010; TeVelde, Aarts, & Van Woerkum, 2002).

While pork production is not the only agricultural industry facing critique, it is a prominent subject in public conversations. Media messages about the pork industry are often on one extreme or another. Activist groups like PETA or Waterkeepers Alliance promote negative perceptions of the hog industry and push messages such as "raise a

stink: stop industrial swine pollution" (North Carolina Billboard Campaign, 2015). On the contrary, organizations such as the North Carolina Pork Council push messages such as "Hog farming: An honest days work" (North Carolina Pork Council, 2015). With such opposing messages, the public has to decide which is the right message and who is the most credible source. It is unclear what the public's perceptions are of activist groups' credibility compared to the industry's credibility. It is a question of who the public trusts.

Moreover, it is not known how a person's activism level (the degree to which an individual participates in a social, health, or environmental cause they find important) affects their perceptions of either activist groups or the hog industry. Insight into who the general public sees as credible and how the public's activism levels influence their views may prove to be beneficial in learning whose opinions the public values and are listening to. This information can direct hog farmers in doing a better job communicating their practices and direct the industry towards future growth.

CHAPTER 2—Literature Review

Pork Production on the National Level

On a national scale, pork production is a major player in the American agriculture industry. American pork is highly sought after for its high quality and due to the more advanced practices of the country's pork industry (NCPC, public presentation, September 2015) compared to other countries. Despite advanced practices, the American pork industry is facing much opposition for their practices. Much of this opposition stems from activist groups, but many individuals are also opposing pork industry practices. The disdain for the pork industry is largely due to the shift in the farming scene. Because only 2% of the population farm, and pork production (and other agricultural industries) have increased in size, there is a large gap between farmer and consumer. While these changes have resulted in the ability of the pork industry to meet demands and thrive, these changes have also meant that "the number of people involved in animal production has gone down dramatically, and so has the number of people who in one way or another feel attached to the agricultural community" (Lassen, Sandoe, & Forkman, 2006, p. 222). This gap has bred disdain, mistrust, and misconceptions between the groups, giving media plenty of fodder to report. The entire situation, receives a good deal of media attention, heightening the issues and fueling the fire.

Consumers are increasingly becoming more concerned with not only the nutritional qualities of their food, but also in how their food is processed, animal welfare, and farming's environmental impacts (McKendree, 2014). Despite this concern of the process their food goes through to reach their table, the majority of consumers do not pay the higher prices for more intensive welfare products such as pasture raised pigs (Tawse,

2009). Vanhonacker, Verbek, Van Poucke, and Tuyettens (2008), found clear consumer ambivalence in their quantitative study. Members of the public wish to purchase inexpensive meat, but place a priority on animal welfare. When it comes down to it, affordability often wins over animal welfare concerns. "This gap between attitude and behavior is also referred to as the duality between consumer and citizen" (Vanhonacker et al., 2008, p.126).

Animal Welfare Concerns

Perhaps one reason there is ambivalence of food safety and animal welfare is due to the mixed definitions of what animal welfare constitutes. Studies show that there is often a clash of definitions between farmers and the public about what *good* animal welfare means. Farmers view good animal welfare as provision of regular care for the animal, based on habit and good intentions. Scientists focus on biological needs when defining good animal welfare. In contrast, consumers and activist groups place emphasis on space and naturalness for the animals (De Greef, Stafleu, & Lauwere, 2006).

Consumers and farmers do not differ completely when it comes to a definition of good animal welfare. Both parties believe that it includes proper nutrition, appropriate heating/cooling, shelter, and good health. Consumers add on the aspect of an animal's ability to fulfill natural desires, such as pigs rooting in the dirt (TeVelde, et al., 2002). Overall, though, the public views current animal welfare practices in a negative light, while farmers view it positively (Vanhonacker et al., 2008). Welfare practices that often cause concern include gestation stalls, farrowing crates, and euthanization techniques. Altering many of these practices will lead to expensive overhaul of facilities, which in turn may increase pork prices for consumers. It is very clear, there is a divide between

what good animal welfare includes, and differing views are present. These differing views are also seen in environmental concerns.

Environmental Impact Concerns

Due to the shift from small-scale farms to those with more than 10,000 pigs, practices developed to handle the scale. One aspect has been managing the hog waste. A standard farming practice, hog waste is stored in open pits called lagoons, which hold several million gallons of the waste. This waste is nutrient rich and often used as a fertilizer for nearby crop fields. The waste is applied to fields through a spray system. Producers are required to follow a host of federal and state environmental regulations regarding the reuse and management of the hog waste (Environment and Energy, n.d.). Despite these regulations, many in the public are concerned for the environment and public health. Complaints include "noxious odor, health threats from the hog waste, decreased property values, interference with enjoyment of their homes and property, local environmental impacts, and community divisions" (Bullers, 2005, p. 2). Due to methodological difficulties, studies have largely been inconclusive as to whether or not hog waste has a negative impact on the physiological well-being of individuals (Bullers, 2005). However, some studies show that nearby residents have higher rates of respiratory, sinus, and nausea problems compared to those who do not live near hog farms (Thu, et al. 1997). In addition, those who live near a hog farm report more instances of tension, depression, anger, fatigue, and confusion than control groups (Schiffman, Satterly Miller, Suggs, & Graham, 1995).

Public Awareness

Literature holds that there is certainly a growing concern regarding pig farms. Part of this concern stems from the migration of the majority of the population off of the farm. Of the United States population, only 1% claim farming as an occupation and only 2% actually live on farms. The average age of a farmer is 55 years or older (Demographics, 2013). The majority of the population do not work or live on a farm. Further, a quantitative study by McKendree et al. (2014) found that of their participants ($N= 798$), 75% had not visited a farm with animals raised for milk, meat, or egg consumption within the last five years; 31% had never visited such a farm and another 31% had last visited a farm over 10 years ago. The public is removed from the farming industry. Not only are the majority of the population removed from farms, but farms have taken on a different look from the red barn, green pasture picture of old.

Many technological advances have been made with innovations everywhere. Adding to the gap between public and farms was the change in media coverage of agriculture at the same time as the public was becoming farther removed from farms (Pawlick, 2001). The innovations of agriculture were not diffused to the public. Moreland and Hyland's qualitative study on adoption of innovations and beef industry communication practices, found that "both the mode of communication and the messages communicated affect the adoptability of the innovation and therefore how readily the innovations were accepted" (2013, p. 14). In addition personal relationships play an integral part in establishing communication. As has already been stated, there is a weak relationship between farmers and the public, and now, much of the population has become curious and concerned with the changes that have been made in their absence.

Farmers and many organizations that represent the pork industry (i.e., National Pork Board) have made efforts to build a better relationship with consumers through various communication channels. The national entity The Pork Checkoff has started a social media campaign with the hashtag #realpigfarming to connect producers all over the nation and highlight what daily life looks like in pig farming. The effort is an educational one directed towards the public (Cunningham, 2015). Similarly, the National Pork Producers Council provides scholarships, internships, and strives to educate legislature in order to build relationships. Pork producers across the nation support their local communities to develop connections and establish communication. While some of these efforts are not an anomaly within the industry there are some like the #realpigfarming campaign (an initiative that encourages farmers to use the hashtag mentioned to show what pig farming is really about) that are new. The effort is certainly to build a positive image; however, it would seem that the pork industry is behind the game in many of their efforts. In order to take a deeper look at the pork industry, this study focuses on the top swine producing states—Iowa and North Carolina. In addition to analyzing these states based off their production, the two states offer very differing pictures when compared.

North Carolina Pig Production

North Carolina is the second largest hog producing state in the nation (North Carolina Agriculture Statistics, 2013). Of all the North Carolina hog farms, 80% are owned by families (NC Pork Council, 2015). Much like the national scene, the state's number of larger scale hog farms (farms with 4,000 or more pigs) has increased dramatically in the last 25 years (Bullers, 2005). As of 2012, North Carolina has nine million hogs on farms (North Carolina Agriculture Statistics, 2013). Many of the state's

hog farms are concentrated in two counties. In fact, Duplin and Sampson counties rank first and second in the nation for pig sales (Census of Agriculture, 2012). In comparison, many other top hog producing states have farms spread throughout their various counties. In close proximity to Duplin and Sampson counties (approximately 60 miles) is the state capital of Raleigh. Wake County, where Raleigh is located, recently reached a population of one million people (Raynor & Stradling, 2014). As a whole, North Carolina boasts a population of 9.9 million (State and County Quick Facts, 2015). The high concentration of hogs in just two counties that are situated closely to a highly populated area creates a unique dynamic. There is a closer connection between urban populations and rural hog farmers than is seen in other states of the country. The large population of hogs in a localized area of the state places the industry in a spotlight that often garners controversy. Local activist groups, such as the Neuse Riverkeeper's Association (which works under the national subsidy Waterkeepers Alliance), often speak out about hog farming practices regarding the environment. In the early part of 2015, the organization launched a billboard campaign against the industry (Waterkeeper Alliance, 2015). Similarly to the national industry, North Carolina has also had backlash to animal welfare practices from organizations such as People for the Ethical Treatment of Animals (PETA). All in all, the state has seen its fair share of media spotlight over the past years, primarily in the past decade (Hog Farming, 2014).

In North Carolina, a moratorium was enacted in 1999 that prevented additional hog farms to be built that utilize lagoons. Because lagoons are such an integral part of a larger scale hog farm, new farms are not being built unless they utilize expensive "environmentally superior technology" (Hog Farming, 2014). Despite the prevention of

expansion, North Carolina pork industry remains a major player in the national scene and impacts local areas economically and as a supplier of jobs. According to the North Carolina Pork Council (NCPC), North Carolina agriculture is worth \$76 billion; \$11 billion of that is from the pork industry (2015). They also employ over 46,000 people (Get the Facts, 2015).

Iowa Pork Production

In comparison, the state of Iowa ranks first in national hog production accounting for a third of all pigs raised in the country. Of those farms 94% are family owned and operated (Iowa Pork Facts, 2012). Unlike North Carolina, hog farms are spread throughout the state. Iowa's population is 3.1 million (US Census Bureau, 2014). According to Ron Birkenholz, communication director of Iowa Pork Producers Association, the majority of the population seem to recognize that agriculture is the backbone of the state (personal communication, September 10, 2015). This does not mean that the state's industry has been without its share of activist issues. Local groups such as the Iowa Citizens for Community Improvement and national groups like PETA are major critics of hog farm practices in Iowa. In the beginning of 2015, lawsuits were filed that addressed environmental impacts of Iowa's hog industry (Eller, 2015), and in 2013 the Humane Society of the United States launched an ad campaign on Des Moines buses that advocated against certain practices regarding animals in the hog industry (West, 2012).

Despite these criticisms, the pork industry continues to be a major player in Iowa's economy, with \$7.5 billion in economic activity and a total of 40,290 people are employed in day-to-day production of hogs (Iowa Pork Facts, 2012). The differences

between the top pork producing states is interesting to analyze because of the potential way demographics affect a general view of the industry. Noting the pork industry and demographic differences between Iowa and North Carolina (see Appendix A for an overview), it is beneficial to ask:

RQ1: How does location and which bias (pro/con) of a promotional article influence perceived credibility of the pork industry?

Information regarding if and how the public's perceptions of credibility change based on which state they live in can provide insight into whether or not credibility can be generalized to a localized or national scale. This is beneficial to the pork industry in that they may better address their consumer's concerns and understand the effects of credibility, state of the industry, and activist group's influences.

Activism

Activism has been a part of history throughout its entirety from ending slavery to protecting the environment (Martin, 2007). Food has often been a focal point of much of this historical activism. Food has been a tool in activism initiatives, such as tea in the Revolutionary War during the Boston Tea Party. Before this event, tea was consumed daily, and in order to make a statement against Britain, tea was boycotted (DeMello, 2014). It was not just used simply as a tool. It was also the source of activism movements. As early as the 1900s individuals like Upton Sinclair were writing about food in a way that elicited social movements and activism to change the way it was being manufactured and processed. After Sinclair wrote *The Jungle*, a book that spoke out against the meat industry, the Pure Food and Drug Act was passed by the government in response. Food activism has not stopped and is still prevalent today.

Based on works of Corning and Myers (2002) and Klar and Kasser (2009), activism is defined as when an individual engages in a behavior that advocates for a political cause with a stable yet changeable orientation (e.g., human rights, environment protection, or abortion opposition). Such behaviors can be executed through lower risk, institutionalized acts like starting a petition to higher risk, unconventional acts like civil disobedience. Activism has long thought to be important to an individual's well-being by many scholars. Aristotle discussed the eudaimonic approach, "which focuses on meaning and self-realization and defines well-being in terms of the degree to which a person is functioning," (Ryan & Deci, 2001, p. 141) to describe the importance of activism. According to a quantitative study by Klar and Kasser (2009), activism does indeed positively affect individuals as Aristotle would suggest. The study found that activists were not only associated with higher psychological well-being, but they were more likely to flourish as well. Elevating the well-being effect are activist groups. Activists often emphasize how belonging to a group made all the difference. "The act of meeting as a group was itself extremely important in realizing change, because these groups provided the context for a shift in attributions by activists and other attendees who came to events" (Scully & Segal, 2009, p. 155). These groups not only bring more direction to individual activists, but they are also creating a stronger and more cohesive image for the public to see.

Food activism is an important subject to focus on within the context of this study. To understand the transformations of the food system that are taking place and the controversies therein, it is worthwhile to analyze and understand consumption practices as they are forms of political activity (Goodman & Dupuis, 2002). While studies have

shown that activism evokes a sense of well-being (Ryan & Deci, 2001; Klar & Kasser, 2009), there is relatively no research on how activism levels may affect the perceptions of individuals, especially when looking at perceived credibility of a message or organization. It is therefore, beneficial to ask:

RQ2: How does an individual's activism level affect their perceived credibility of a message and the source of that message?

Credibility

Although Aristotle's rhetoric was a prelude to the concept of credibility with the concepts of pathos, logos, and ethos, the thought of credibility "first appeared in the Yale Studies, a series of psychological experiments conducted by Hovland and his colleagues in the 1940s and 1950s" (Jackob, 2008). The concept of credibility can be defined as multifaceted (Winter & Kramer, 2014). While Kazoleas and Teven (2009) hold that there is not a conclusive agreement regarding what constitutes as trust and credibility, there is "a wide range of factors that may set the groundwork for antecedents (such as risk and vulnerability), impact perceptions (such as reliability, confidence, integrity), influence outcomes (ability, benevolence)" (p. 22). Much of literature does suggest that there are different categories of credibility that should be analyzed (Kang, 2010; Kazoleas & Teven, 2009; Kramer & Winter, 2014). Message, source, and medium are the three perspectives that credibility is assigned to (Metzger, Flanagin, Eyal, Lemus, McCann, 2003).

Medium credibility. According to Kang (2010), medium credibility is the perceived level of credibility of a particular medium like blogs, newspapers, and the Internet. According to Marshall and Woonbon (2003), traditional (print) media and the

Internet both "have content ranging from the very scholarly and specific to vanity material (articles that have not been through the peer review process intrinsic to scholarly work)" (p. 76). According to Metzger, Flanagin, and Medders (2010), perceived credibility can become problematic when dealing with online sources as the diversity of those sources outdates the concept that credibility originates from a central authority (e.g., expert or doctor). With the abundance of information available online, and very little traditional gatekeeping available, individuals tend to defer to external sources for credibility. Experience is a primary factor in the amount of trust a person has regarding the Internet (Dutton & Shepherd, 2006). Perhaps more important than medium credibility is message and source credibility.

Message credibility. Kang defines message credibility as how credible the message is perceived based off of accuracy and information quality. According to Metzger, et. al. (2003), there have been few attempts to measure message credibility. Rather there has often been a focus on source credibility. The line between the two concepts is often blurred, and concepts overlap (Metger, et. al. 2003). Nonetheless, a message's credibility is determined based off elements of structure, language intensity, inclusion of evidence, and message attractiveness (Roberts, 2010). With elements like these, it is easy to see how the lines between source and message credibility are blurred.

Source credibility. The last category that credibility is assigned to--source credibility-- is defined as how trustworthy and believable the communicator of a message is (Haase, Betsch, & Renkewitz, 2015; Kang, 2010; Metzger,et. al, 2003). Credibility, whether source, medium, or message, is important when communicating a message. This is especially imperative for organizations. The effectiveness of a message is largely

dependent on credibility. While message quality is an important part of the equation (Worthington, Nussbaum, & Parrott, 2015), the source of the message greatly affect the success of a message. Persuasiveness of a message "may be significantly smaller if the source is perceived to be low in credibility; at the same time, the persuasive impact may be significantly greater if the source is perceived to be highly credible," (Haase, et al., 2015, p. 921). In addition, competence and trustworthiness are major considerations in source credibility (Winter & Kramer, 2014). It should be noted that organization credibility is to be considered a form of source credibility and holds many of the same attributes (Metzger, et. al, 2003). The term source is a broad one according to literature. Sources may be a person, a group, an institution, an organization, or a label (Hass, 1988). Furthermore, credibility is heightened when an individual perceives the source as more similar to them, and therefore, more likable (Berlo, Lemert, & Mertz, 1969). When looking at how credible the pork industry is as a source, perhaps:

H: Individuals who do not eat pork will perceive the pork industry more negatively as a credible source.

When looking at organization credibility, we see a common concept of transparency arise. An organization's transparency is important to public perceptions of credibility. According to Rawlins, trust, corporate social responsibility and ethics are all associated with transparency (2009). Rawlins goes on to say that transparency has three elements: "information that is truthful, substantial, and useful; participation of stakeholders in identifying the information they need; and objective, balanced reporting of an organization's activities and policies that holds the organization accountable" (2009, p. 74). To achieve transparency, Kim, Hong, and Cameron (year) indicate that there must be a trust-based relationship and this trust is built off of what information the organization reveals to

the public (2014). According to the Edelman Trust Barometer (2009), the public trusts someone most like them, such as friends and family. When transparency and trust are achieved, it enhances the "organization's accountability where complaints and issues, along with its responsibilities, become clear" (Kim, et al., 2014, p. 815). Part of attaining transparency comes with immediacy by the organization according to Rawlins (2009). Interestingly, research is inconclusive as to how anonymous sources affect perceived credibility (Smith, 2007; Sternadori & Thorson, 2009).

Determining whether or not a source, medium, or message is credible is dependent on the individual and their perceptions. A model that may shed light on how individuals develop these perceptions is the heuristic-systematic model. Heuristic processing "entails the activation and application of judgemental rules or 'heuristics' that, like other knowledge structures, are presumed to be learned and stored in the memory" (Chen & Chaiken, 1999, p. 74). Perceptions and decisions are made with easily processed judgment cues (e.g., length of article, source, etc.). While credibility may affect heuristic processing, it also works in the reverse. "When processing heuristically, people assess the validity of a communication or the quality of a product through a comparatively superficial consideration of cues available in the judgemental context" (Maheswaran, Mackie, Chaiken, 1992, p. 318). Because of heuristic processing, it is imperative that credibility, especially source credibility, is established. Without such a basis, an individual will not make the judgments desired by the communicator.

Credibility can also be affected by the perceptions that have been pre-determined based on previous encounters and actions. Depending on how an individual attributes the cause of that event, credibility can be negatively or positively affected. To understand this more fully, it is beneficial to look at attribution theory.

Theory of Attribution

Attribution theory centers around the process of individuals making sense of certain actions and events, in an effort to locate the cause of that event (Vishwanath, 2014; Weiner, 2000). The theory maintains that there are two different causal responsibilities that individuals recognize. Heider (1958) identified two causes that people typically attribute the source of a behavior or event to: internal causation (caused by the individual) and external causation (caused by outside environmental or societal influences). People often do not hold actions and events against a person or group when there is an external causation. There is no need when it is beyond their control (Polk, 2005). Attributing a cause of an event helps people to reduce uncertainty and predict future behavior (Hinnant, Len-Rios, & Jee Oh, 2012). Emotions are also a key player in attribution theory according to Weiner (2010). Emotions such as pride, guilt, regret, and hope are all connected to attribution. Weiner does explain, however, that certain emotions "specifically happiness and unhappiness are not linked to attributions but are tied to task outcomes--they are outcome-dependent, attribution-independent feelings" (2010, p. 33).

While attribution theory provides a way for people to make sense of an event and develop an understanding to why the event or action occurred in order to reduce uncertainty, many of these attributions are biased. People are more likely to attribute external causations to their own situation and internal causations to the situation of others (LaBelle & Martin, 2014; Polk, 2005). If this concept was applied to a hog waste spill, a pig farmer may attribute the cause of this event to an external force, such as equipment malfunction. In contrast, an outside party such as an activist group, may attribute the spill

to an oversight or job failure of the farmer. In this way, it can be seen how attribution theory can give insight into the perceptions of the public towards pig farmers.

Many studies apply attribution theory to health perceptions and stigmas (Boyle, 2014; Hinnant, et.al., 2012; Polk, 2005; Vishwanth, 2014), student perceptions of teachers (LaBelle & Martin, 2014), interpersonal relationships (McManus & Donovan, 2012), and consumer behavior (Mizerski, 1978; Roberson & Rossiter, 1974). There has not been any applications of attribution theory to the context of farmers. This context can prove to be an important contribution given the increasing hype over food safety, animal welfare, and environmental concern in hog farms.

CHAPTER 3—Method

Design

This study used a 2x2 experimental (state: North Carolina, Iowa; op-ed bias: pro Pork, con Pork) study design to determine if participants' activism levels decrease or increase their perceived credibility of a source (pork industry or activist) in op-ed articles. The study was conducted in the top hog producing states in America-- Iowa and North Carolina. Each participant completed scales that measured their current knowledge of the hog industry and their activism levels. They were also presented an op-ed article that was either written by an activist or the pork industry, and asked questions about the credibility of those sources.

Sample

To achieve a representative sample size of 95% confidence level with a population greater than 100,000, Krejcie and Morgan (1970) state that a sample size of 384 is desired. Participants were chosen from North Carolina and Iowa county Cooperative Extension Service email lists. Extension reaches a broad range of people in many communities. Because of the reach of Extension, the researcher felt it was an ideal recruitment avenue. To maintain privacy, the researcher worked with the Cooperative Extension Services to distribute the emails. The researcher never saw the email addresses of recipients. As an incentive, participants were offered a chance to win a \$50 gift card to Amazon by entering a drawing. Each state was allotted 15 gift cards.

Participants accessed the study via an email that was sent to them from various organizations' email distribution lists (e.g., Cooperative Extension, Pork Council, community groups). Emails were also sent from the Extension offices. The email

included an anonymous link to take the survey ; the email also asked the recipient to forward the email to anyone else in the state, in a snowball fashion. Links were the same for Iowa citizens than North Carolinians, but the news articles were randomized with the pro/con condition and were specific to the state of the participant.

Participants

In this study, 254 participants completed the online experiment. The sample consisted of 187 females (73.6%) and 61 males (24%). There were 31 participants between the age of 18 to 20 (12.2%), 10 between the ages of 21 to 30 (2.5%), 29 between the ages of 31 to 40 (11.4%), 43 between the ages of 41 to 50 (16.9%), 24 between the ages of 51 to 60 (9.4%), and 19 were older than 60 (7.5%). In terms of ethnicity, 241 identified as white/Caucasian (94.9%), 2 identified as African American (.8%), 3 participants identified as Hispanic (1.2%), 3 identified as Asian (1.2%), and 4 identified as *other* (1.6%). The sample consisted of 121 Iowans (47.6%) and 133 North Carolinians (52.4%). Participants were asked to indicate what county they lived in. Of the 100 counties in North Carolina, 35 were represented in this study by participants with a majority coming from Wayne (19.7%) and Wake (31.8%) counties. In Iowa, 39 of the 99 counties were represented with the majority coming from Black Hawk (43.7%) and Polk (8.4%) counties. Across both states, there are 52 participants currently live on a farm (20.5%), with 105 participants reporting have lived on a farm at some point in their lives (41.3%).

Procedure

The link in the email took participants to a university IRB consent form that they had to sign to proceed with the study. The survey consisted of three parts: (a) activism,

(b) op-ed articles and validity check questions regarding those pieces (e.g., Who was the author of the previous article?), (c) credibility, and (d) demographics and pork facts. The first section of the survey consisted of a scale based on Corning and Myers' (2002) activism scale (see Appendix B for scale). In their study, the Activism Orientation Scale (AOS) was analyzed and shortened to a 35-item scale that divided the scale into two subscales: Conventional Activism and High-Risk Activism. The question, "How likely is it that you will engage in this activity in the future?" is asked of the participants before being presented with scale items such as "display a poster or bumper sticker with a political message," "attend a talk on a particular group's social or political concerns," and "try to change a friend's or acquaintance's mind about a social or political issue." Participants chose to answer with either 0 (*extremely unlikely*), 1 (*unlikely*), 2 (*undecided*), 3 (*likely*), or 4 (*extremely likely*). Corning and Myers have reported that the overall scale had a Cronbach alpha of .96.

Part two of the survey consisted of op-ed articles written by either the pork industry or an activist group. Selection of articles was based off of subject matter and if there was a piece pro and con regarding the same subject. Articles came from press releases of organizations and local newspapers. Participants were asked to read one article based on the condition (pro or con) and answer questions about it afterwards. They were first asked about what they recalled about the article to gauge their retention of information and their attention to the source (activist or pork industry). They were then asked a series of questions based off of two scales by Kang (2009) that was designed to evaluate credibility of blogs and bloggers (see Appendix B for scale). Despite the difference in context of Kang's study, the scale was generalizable enough to be applicable

to the current study (i.e., op-ed and op-ed author). Participants' answers regarding their credibility perceptions were measured in terms of such attributes as knowledgeable, influential, passionate, transparent, and reliable with a 7-point Likert scale that ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). This scale has reported an alpha of .84 (Kang, 2009). When measuring content credibility, a 7 point Likert scale that ranged from 1 (*strongly disagree*) to 7 (*strongly agree*) was used to measure attributes such as authentic, insightful, informative, consistent, fair, focused, accurate, timely, and popular. A Cronbach's alpha of .93 has been reported for this scale (Kang, 2009).

The survey's last section consisted of basic demographic questions and a questionnaire that measured the participant's knowledge of the pork industry (see Appendix B for questionnaire). There were 10 true/false questions included statements such as "hog farms are routinely inspected by state officials for waste management practices" and "more than 80% of farms are family owned and operated." The surveys were created using the online program Qualtrics. Any survey that had not been completed was discarded.

Stimuli

Four op-ed articles were used as stimuli for this study. Two were selected for participants in Iowa and the other two were selected for those in North Carolina. For each of those two articles, one was written by an activist group that opposes the pork industry (con article) and the other article was written by a group in the pork industry (pro article). All articles had the same photo of a generic pig as many online op-eds have similar images. Articles were written between 2013 and 2015 regarding hog industry environmental issues and the animal welfare in the hog industry; these were edited for

consistency. The pieces came from leading news medias in the area; *The News and Observer* and the *Des Moines Register* were chosen for their respective areas. They also came from press releases by associations. The author of the article (a generic, fictious name) was plainly displayed along with their association. There was also a short description of the association (also fictious) at the end of the article.

Data Analysis

To analyze the study's research questions, the Statistical Package for the Social Sciences (SPSS) was used. An ANOVA test was used. Correlations and regressions were also run.

Variables

In RQ1, state (Iowa or NC) is identified as the independent variable. The dependent variable is credibility, and is measured by Kang's (2009) scale of credibility. In regards to RQ2, activism level is the independent variable, and is measured using Corning and Myers' (2002) 35-item Activism Orientation Scale. The dependent variables include source credibility and message credibility, measured by two of Kang's (2009) credibility scales. Finally, the hypothesis has an independent variable of whether people eat pork or not, determined by a question in the survey. Source credibility is identified as the dependent variable, measured in the same way as in RQ1 and RQ2.

CHAPTER 4—Results

Participants had a mean activism score of 97.37 ($SD = 24.08$) with a range of 34 to 166, $\alpha = .953$. By state, activism scores were: Iowa, $m = 94.98$ ($sd = 26.37$) and North Carolina, $m = 99.69$ ($sd = 20.98$).

News articles stimuli were randomized and presented to participants; participants viewed only one news article. Of the participants who were residents of Iowa ($n = 121$), 65 saw the Iowa con article (54%) and 56 saw Iowa pro article (46%). Of the North Carolina residents ($n = 133$), 68 saw the NC con article (51%) and 65 saw the NC pro article (49%). After reading the news article, participants were presented a validity check question. Of the 38 who answered that they saw an article from the pork industry, 36 (95%) were correct. Of the 109 that said the article they saw was from an activist group, 85 (78%) were correct. There were 42 (17%) people said that neither the pork industry nor an activist group wrote the article, and 65 (26%) were unsure. Of the 121 people who saw an article from the pork industry (pro), only 36 answered correctly (30%). In comparison, 85 answered correctly of the 133 who saw the activist article (64%). Participants had a mean credibility score of 58.81 ($SD = 14.09$) with a range of 13 to 90; $\alpha = .936$. By state, credibility scores were: Iowa, $m = 59.50$ ($sd = 12.47$) and North Carolina, $m = 58.17$ ($sd = 15.46$).

For RQ1 that asked, how does location and which bias (pro/con) of the promotional article influence perceived credibility of the pork industry?, the ANOVA was significant ($F = 4.78, p = .009$). While the effect of location on credibility was not significant ($p = .391$) to the overall F test, the conditions (pro or con) did ($p = .003$)

Credibility scores were higher for those in the pro condition ($m = 61.58, sd = 13.62$) than the con condition ($m = 56.33, sd = 14.10$).

For RQ2 that asked, how does an individual's activism levels influence their perceived credibility of a message?, the regression was not significant. However, a post hoc analysis indicated that sex, independent of activism, was significant ($t = -2.906, p = .004$) (female credibility, $m = 98.21, sd = 22.73$; male credibility, $m = 95.56, sd = 26.27$).

The hypothesis predicted that individuals who do not eat pork will perceive the pork industry more negatively as a credible source. Participants reported their pork consumption: 21 participants indicated they *never eat pork* (8.3%), 20 *eat pork less than once a month* (7.9%), and 25 *eat pork once a month* (9.8 %). Meanwhile the majority of participants say they *eat pork 2 to 3 times a month* (68, 26.8%) or once a week (65, 25.6%). There were 49 participants said they ate pork 2 to 3 times a week (19.3%), and 6 said they ate pork on a daily basis (2.4%). In order to assess if the relationship between eating pork and credibility scores was significant, results from the variable eating pork was divided into two groups: those who ate pork once a month or less ($n = 64$) and those who ate pork more than once a month ($n = 184$). The results of the grouped pork consumption and credibility was not significant ($F = .057, p = .812$).

Since eating pork did not influence credibility, a post hoc test examined if living on a farm influenced credibility. Participant's credibility for those who had lived on a farm before ($m = 58.12, sd = 16.43$), and not lived on farm before ($m = 59.55, sd = 12.10$) were statistically different ($t = -.789, p < .001$). Alternately, scores for those who currently live on a farm ($m = 57.56, sd = 18.70$) and do not live on a farm ($m = 59.14, sd = 12.63$). These means were also found to be statistically different ($t = -.72, p < .001$).

CHAPTER 5—Discussion

There is tension among the farming community, activist groups, and the public. This tension stems from, in part, because 98% of the population does not farm (Croney & Anthony, 2009). Farms do not look the same as they did 50 years ago, and the public is becoming more interested (and critical) of how their food is being grown. Farmers, on the other hand, see that they have more technology and efficiency than they used to, but this means that the farms do not look the same, causing concern for the public. This rift is causing a lot of tension. In the midst of the tension is the pork industry. The pork industry is being critiqued for animal welfare, environmental practices, and food safety (Brantley, 2013; Bullers, 2005; Pitt, 2013). Many times, there are opposing views, and the public has to sift through these views. This study offers insight into how the public is viewing the pork industry in comparison to activist groups. It also offers information regarding activism levels. Specifically, this study delves into how residents of Iowa and North Carolina (the top pork producing states) may differ in their perceived credibility of the pork industry.

The first research question asked how state of residence (i.e., Iowa, North Carolina) and which bias (pro/con) of the promotional articles influenced perceived credibility of the pork industry. Results showed that it was not a matter of where a participant lived, but what article they read. Despite the fact that Iowa and North Carolina have very different pork industry scenes, location did not affect a participant's perceived credibility. However, what stimuli (pro/con) they saw did make a difference in their perceived credibility. Participants who read a pro-pig industry article, had a greater credibility score than those who read a con-pig industry article. Because results show that

residency does not matter, it may provide an opportunity for Iowa and North Carolina to join forces (and save resources) and run a campaign together and be just as effective.

The second research question asked if a person's activism levels affected their perceived credibility of the pork industry. The regression of activism to credibility was significant but practically only accounts for .016 of the variance, making it a very weak predictor. Further confusing this relationship is that females reported higher levels of activism than males. In a regression model accounting for both independent variables, activism accounted $\beta = .11$ whereas sex $\beta = 1.85$. This aligns with a research study, regarding animal welfare, in which females were more involved with activism than men (Mika, 2006). The current study also provides insight in a broader sense than animal welfare as it encompasses environment and food safety. This information shows that women tend to feel more strongly—positively or negatively—regarding the pork industry because of their higher activism levels. This information is beneficial when developing messages. This finding could be used in several ways. First, it could change the focus of pork industry messaging as it advocates to the public. Rather than focusing on the perceived activism levels, messaging may be better directed based on targets' sex. When developing messages and maintaining credibility, these particular aspects should be taken into consideration when analyzing the targeted audience because sex matters more than a person's activism levels. Does this mean that pro pig industry messages should have one message appealing to women by addressing both activism and sex, and another message to men appealing to the perceived masculinity of the farming industry?

Another factor that influenced participants' credibility is whether or not participants currently live on a farm, or if they ever had. In these data, only 20.5% of

participants currently live on a farm, but 41.3% of participants had lived on a farm at some point in their lives. These findings merit two discussions. First, more participants had never lived on a farm suggesting that they had no or fewer experiences with the farming aspects of the pig industry. Those who currently live on a farm had a higher standard deviation in regards to their perceived credibility score than those who were not currently living on a farm. Thus, credibility scores better represented a normal distribution for those who currently live on a farm versus those without farm experience. This distribution suggests that credibility of those without farm experience is more centralized around the mean. These results could be the cause of the difference in the number of participants between the groups, but it could also allude to differing perceptions within farmers. While the articles focused on larger hog farms, there are many other kind of farms (i.e., organic, crop, pasture raised, small farms.). The various farms may have differing views and perceptions of the pork industry. It would be beneficial to delve into this subject further in future research.

In order to test the study's hypothesis that those who do not eat pork view the pork industry more negatively, a *t*-test was run. Results did not support the hypothesis. Literature suggests that when an individual perceives the source as more similar to them, their perceived credibility is heightened (Berlo, Lemert, & Mertz, 1969). This finding suggests that just because person eats pork, does not mean they feel similarly to or like hog farmers. Campaigns that situate favorable messages about the pork industry may not be effective if messaging is developed around the assumption that if a person consumes pork, they will think positively of the pork industry. Just because a person consumes pork, does not mean they perceive the pork industry as credible. Buying pork as a product

does move individuals closer to that industry but not enough to be perceived as a credible source or having credible messages. There is much more to being perceived as credible as a commonality in enjoying bacon.

A final aspect to discuss is the validity check question of *who was this article written by?* and how participants responded. As reported in the results, 95% who answered that they saw an article from the pork industry were correct. Of those that said the article they saw was from an activist group, 78% were correct. There was 17% that said that neither the pork industry nor an activist group wrote the article, and 26% were unsure. More participants reported that they were unsure if the article was from the pork industry or from an activist group. These results suggest a few things. First, participants were not clear that the message was from the pork industry and many participants reported that the message they read from the pork industry was from an activist group. Perhaps the pork industry was thought to be an activist group because the articles were in response to attacks on the industry. The articles written by the pork industry could have been interpreted as being in the role of activist for hog farmers and the industry. As for the lack of clarity of the pork industry's message, only 30% correctly identified the author of the message. In comparison, 64% correctly identified the author of con-pig industry article. These results may demonstrate that participants were unsure of the source of the pro-pig industry message was coming from, which can cause problems for the pork industry when dealing with credibility.

Limitations

Ideally, the sample should have reflected the male/female and racial/ethnic diversity of each state. Although the snowball sampling of the survey was initiated with

different starting points, full diversity was not achieved. In addition, counties were not as equally represented as desired. Representation of every county in each state was not achieved. In Iowa 39% of counties were represented with participants. North Carolina counties had 35% representation. However, the majority of North Carolina participants were from Wayne (19.7%), a top pork-producing county, and Wake (31.8%), one of the lowest pork producing counties. In addition, in Iowa, 39 of the 99 counties were represented with the majority coming from Black Hawk (43.7%), one of the top pork producing counties and Polk (8.4%), one of the lowest pork producing counties. Despite these contrasts, more generalizable data with all counties accounted for would have been ideal. This limitation is tempered as data revealed that participants were equally distributed among those living on farms and those not living on farms.

Future Research

In future research, a broader sample size and different sampling method may produce a diversity representative of each state. This would also provide more insight into the social justice situation that oftentimes surrounds the pork industry. Because hog farms are typically in rural areas that are of a lower socioeconomic status, many activist groups suggest discrimination and social injustice is occurring. Broadening this study, would allow for a more detailed look into this controversy. In addition, to expand on the understanding of perceived credibility of the pork industry, it would be useful to conduct further research on the content of articles. While all of the articles in this study included a generic photo of pig, it would be worthwhile to determine if different visuals affect credibility of the organizations (activists or pork industry) authoring the news story. In

conjunction, it would also be interesting to note if captions of these visuals affected perceived credibility.

It would be beneficial to analyze if the appearance of quote from a pork industry or activist in an article affected participants' credibility of the article. This is especially interesting, considering, many times farmers seemingly keep to themselves and offer "no comment" as a typical media response. Considering the results of those who lived on a farm and their credibility scores, it would be interesting to see how and if the type of farm would make a difference in perceived credibility. Additionally, it may be beneficial to compare a top pork producing state and a state that is not in future research. Perhaps another future direction could be inverting the hypothesis to look at whether those who do not eat pork view anti-pork messaging as more credible. Finally, another direction for future research may be in timeliness. All articles in this study were given the same publication date, it may be worthwhile to determine if an individual's perceived credibility is altered depending on which organization's information they receive first.

CHAPTER 6—Reccomendations and Concluding Remarks

The pork industry, activism, and public perceptions is a dynamic situation. One that this study aims to shed light on. Apart from filling gaps in literature, there are several findings that could be beneficial for the pork industry, and even other industries to note. A successful and healthy industry is one that does not stay stagnant, but rather continuously strives to be better.

Based on the results of this study, there is confusion among the public as to the source of pro pork publications. It is important to have a clear image and presence in articles so the public is fully aware of where information is coming from. Building organizational credibility becomes difficult when consumers are unaware of the source of a message. It is to be noted that rather than confusion, consumers simply view the pork industry as an activist group. This is not problematic if activism aligns with the pork industry's desired image. Ultimately, it is worthwhile to analyze messages and the image of the pork industry in published articles to ensure that the source is clear.

It was noted in this study that perceived credibility did not matter in relation to if a person lived in Iowa or North Carolina. This creates the potential to combine resources between the two states and create powerful messages, events, and resources that may not otherwise be possible. The study found that what consumers see (pro/con) makes an impact, reiterating the importance of organiation image. Timeliness, presence, and a strong voice are all important and could potentially be amplified through a partnership with Iowa and North Carolina.

If the pork industry is trying to increase their percieved credibility, especially through similarities, it is important to remember that pork consumption does not affect

percieved credibility. Rather than focusing on products like bacon, or framing messages around food, perhaps, consumers would find more similarities with messages about families and community.

The pork industry affects a lot of people locally, nationally, and globally, but those same people have the power to affect the industry in profound ways. Activism, while not a strong influence on the public's percieved credibility, it is a presence that is loud and provides a lot of push towards farmers. It is important that percieved credibility remains in good standing with the public, and creating a strong voice will help achieve that goal. People care about pork, no matter where they live, and they will continue to talk about pork so long as there is activism, opinions of credibility, and pigs.

REFERENCES

- 2009 Edelman Trust Barometer. (2009). *PRweek*, 12, B, E1-E22.
- Belasco, W. (1993). *Appetite for change*. Ithaca, NY: Cornell University Press.
- Berlo, D. K., Lemert, J. B., & Mertz, R. J. (1969). Dimensions for evaluating the acceptability of message sources. *American Association for Public Opinion Research*, 33, 563-576.
- Boyle, M. P. (2014). Understanding perceptions of stuttering among school-based speech-language pathologists: An application of attribution theory. *Journal of Communication Disorders*, 52, 143-155. doi:10.1016/j.jcomdis.2014.06.003
- Brantley, M. (2013, August 6) Lawsuit filed to stop hog feeding operation in Buffalo River watershed. *Arkansas Times*. Retrieved from <http://www.arktimes.com/ArkansasBlog/archives/2013/08/06/lawsuit-filed-to-stop-hog-feeding-operation-in-buffalo-river-watershed>
- Bullers, S. (2005). Environmental stressors, perceived control, and health: The case of residents near large-scale hog farms in Eastern North Carolina [Electronic version]. *Human Ecology*, 33(1). doi:10.1007/s10745-005-1653-3.
- Census of agriculture (2012). *United States Department of Agriculture*. Retrieved from http://www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/Hog_and_Pig_Farming/
- Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Personality and Social Psychology*, 39, 752-766.

- Chen, S. & Chaiken, S. (1999). The heuristic-systematic model in its broader context. In S. Chaiken & Y. Trope (Eds.), *Dual-process theories in social psychology* (pp. 73-96). New York, NY: Guilford Press.
- Click, M. A. & Ridberg, R. (2010). Saving food: Food preservation as alternative food activism. *Environmental Communication*, 4, 301-317.
doi:10.1080/17524032.2010.500461
- Company Profile & History. (2016). *Smithfield Foods*. Retrieved from <http://www.smithfieldfoods.com/about-smithfield/company-profile>
- Corning, A. F., & Myers, D. J. (2002). Individual orientation toward engagement in social action. *Political Psychology*, 23, 703-729.
- Croney, C. C., & Anthony, R. (2009). Engaging science in a climate of values: Tools for animal scientists tasked with addressing ethical problems. *Journal of Animal Science*, 88, 75-81. doi:10.2527/jas.2009-2353.
- Cunningham, C. (22 June, 2015). Pork checkoff announces #RealPigFarming student social forces team. *Pork Checkoff*. Retrieved from <http://www.pork.org/pork-checkoff-announces-realpigfarming-student-social-forces-team/>
- De Greef, K., Stafleu, F. & De Lauwere, C. (2006). A simple value-distinction approach aids transparency in farm animal welfare debate [Electronic version]. *Journal of Agricultural and Environmental Ethics*, 19, 57-66. doi:10.1007/s10806-005-4527-1.
- DeMello, A. (2014). Social activism with extra sauce: How food communication increases political awareness in social media. *Honors Theses-Providence Campus*, 16. Retrieved from http://scholarsarchive.jwu.edu/student_scholarship

- /16?utm_source=scholarsarchive
 .jwu.edu%2Fstudent_scholarship%2F16&utm_medium=PDF&utm_campaign=P
 DFCoverPages
- Demographics. (2013). *U.S. Environmental Protection Agency*. Retrieved from
<http://www.epa.gov/oecaagct/ag101/demographics.html>
- Dutton, W. H. and Shepherd, A. (2006). Trust in the Internet as an experience
 technology. *Information, Communication, and Society*, 9, 433–451.
- Eller, D. (19 January, 2015). Will Des Moines water lawsuit change farming rules? *The
 Des Moines Register*. Retrieved from
<http://www.desmoinesregister.com/story/money/agriculture/2015/01/18/water-pollution-lawsuit/21929897/?from=global&sessionKey=&autologin=>
- Environment and energy. (n.d.). *National Pork Producers Council*. Retrieved from
<http://www.nppc.org/issues/environment-energy/>
- General facts about agriculture. (n.d.). *North Carolina State University College of
 Agriculture and Life Sciences*. Retrieved from
<http://www.cals.ncsu.edu/CollegeRelations/ AGRICU.htm>
- Get the facts. (2015). *NC Farm Families*. Retrieved from <http://ncfarmfamilies.com/>
- Goodman, D., & DuPuis, E. M. (2002). Knowing food and growing food: Beyond the
 production consumption debate in the sociology of agriculture. *Sociologia
 Ruralis*, 42, 5-22.
- Haase, N., Betsch, C., & Renkewitz, F. (2015). Source credibility and the biasing effect
 of narrative information on the perception of vaccination risks. *Journal of Health
 Communication*, 20, 920-929. doi:10.1080.10810730.2015.1018605

- Hass, R. G. (1988). Effects of source characteristics on cognitive responses and persuasion. In R. E. Petty, T. M. Ostrom, & T. C. Brock (Eds.), *Cognitive responses in persuasion* (pp. 141–175). Hillsdale, NJ: Erlbaum.
- Heider, F. (1958). *The psychology of interpersonal relations*. New York, NY: Wiley.
- Hinnant, A., Len-Rios, M. E., & Jee Oh, H. (2012). Are health journalists' practices tied to their perceptions of audience? An attribution and expectancy-value approach. *Health Communication, 2*, 234-243. doi:10.1080/10410236.2011.578331.
- Historical timeline. (2014). *Growing a nation*. Retrieved from <https://www.agclassroom.org/gan/index.htm>
- Hog farming. (2014). *North Carolina in the global economy*. Retrieved from http://ssri0008.ssri.duke.edu/NC_GlobalEconomy/hog/overview.shtml
- Iowa pork facts. (2012) *Iowa Pork Producers Association*. Retrieved from <http://www.iowapork.org/news-from-the-iowa-pork-producers-association/iowa-pork-facts/>
- Jackob, N. (2008). Credibility Effects. *The International Encyclopedia of Communication*. Donsbach, Wolfgang (Ed.). Blackwell Publishing. Retrieved from http://www.communicationencyclopedia.com/subscriber/tocnode.htm?id=g9781405131995_chunk_g97814051319958_ss154-1
- Kang, M. (2010). Measuring social media credibility: A study on measure of blog credibility. *Institute for Public Relations*. Retrieved from http://www.instituteforpr.org/wp-content/uploads/BlogCredibility_101210.pdf

- Kazoleas, D., & Teven, J. J. (2009). Public relations and organizational credibility: Refining the definition, measurement and assessment of organizational trust. *Human Communication, 12*, 19-32. doi:10.1.1.532.8659
- Kim, B., Hong, S., & Cameron, G. T. (2014). What corporations say matters more than what they say they do? A test of a truth claim and transparency in press releases on corporate websites and Facebook pages. *Journalism and Mass Communication Quarterly, 9*, 811-829. doi:10.1177/1077699014550087
- Klar, M., & Kasser, T. (2009). Some benefits of being an activist: Measuring activism and its role in psychological well-being. *Political Psychology, 30*, 755-777. doi:10.1111/j.1467-9221.2009.00724.x
- Krejcie, R. B. & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*, 607-610.
- LaBelle, S. & Martin, M. M. (2014). Attribution theory in the college classroom: Examining the relationship of student attributions and instructional dissent. *Communication Research Reports, 31*, 110-116. doi:10.1080/088240962013.846257.
- Lassen, J., Sandoe, P., & Forkman, B. (2006). Happy pigs are dirty! Conflicting perspectives on animal welfare. *Livestock Science, 103*, 21-230. doi: 10.1016/j.livsci.2006.05.008
- Levenstein, H. (2003). *Paradox of plenty: A social history of eating in modern America*. Berkley, CA: University of California Press.

- Maheswaran, D., Mackie, D. M., & Chaiken, S. (1992). Brand name as a heuristic cue: The effects of task importance and expectancy confirmation on consumer judgments. *Journal of Consumer Psychology, 1*, 317-336.
- Martin, B. (2007). Activism, social and political. In G. L. Anderson & K. G. Herr (Eds.), *Encyclopedia of activism and social justice* (pp. 19–27). Thousand Oaks, CA: Sage.
- McKendree, M. G. S., Croney, C. C., & Widmar, N. J. O. (2014). Effects of demographic factors and information sources on United States consumer perceptions of animal welfare. *Journal of Animal Science, 92*, 3161-3173. doi:10.2527/jas.2014-6874
- McManus, T.G. & Donovan, S. (2012). Communication competence and feeling caught: Explaining perceived ambiguity in divorce-related communication. *Communication Quarterly, 60*, 255-277. doi:10.1080/01463373.2012.669328.
- Metzger, M. J., Flanagin, A. J., Eyal, K., Lemus, D. R., & McCann, R. M. (2003). Credibility for the 21st century: Integrating perspectives on source, message, and media credibility in the contemporary media environment. *Communication yearbook, 27*, 293-335.
- Metzger, M. J., Flanagin, A. J., Medders, R. B. (2010). Social and heuristic approaches to credibility evaluation online. *Journal of Communication, 60*, 413-439. doi: 10.1111/j.1460-2466.2010.01488.x
- Mizerski, R.W. (1978). Casual complexity: A measure of consumer casual attribution. *Journal of Marketing Research, 15*, 220-228. doi:10.2307/3151252

Moreland, H., & Hyland, P. (2013). Improvising communication and increasing adoption of innovations in the beef industry. *Journal of Science Communication, 12*(2).

Page numbers?; only need issue number if each issue starts at 1

North Carolina agriculture statistics. *North Carolina Department of Agriculture and Consumer Sciences*. Retrieved from

<http://www.ncagr.gov/stats/2013AgStat/Page038-059.pdf>

North Carolina Pork Council. (2015). Retrieved from <http://www.ncpork.org/>

Pawlick, T. F. (2001). *The invisible farm: The worldwide decline of farm news and agricultural journalism training*. Chicago, IL. Burnham.

Pitt, D. (2013, November 21) Groups to pursue lawsuit against hog farm. *Bloomberg Business Week*. Retrieved from [http://www.businessweek.com/ap/2013-11-](http://www.businessweek.com/ap/2013-11-21/groups-to-pursue-lawsuit-against-hog-farm)

[21/groups-to-pursue-lawsuit-against-hog-farm](http://www.businessweek.com/ap/2013-11-21/groups-to-pursue-lawsuit-against-hog-farm)

Plain, R. (2014). Economic impact of U.S. pork trade, 1986-2014. *University of Missouri-Columbia*. Retrieved from

<http://agebb.missouri.edu/mkt/exportUSpaper.htm>

Polk, D. M. (2005). Communication and family caregiving for Alzheimer's dementia:

Linking attributions and problematic integration. *Health Communication, 18*, 257-

273. doi:10.1207/s15327027hc1803_4

Quick Facts: Top 10 pork producing countries (2014). *Pork Checkoff*. Retrieved from

<http://www.pork.org/quick-facts-top-10-pork-producing-countries/>

Quiroz, M. (2010). Farrowing crates: Our farm past and future? Retrieved from

[http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/20059/QuirozMaria.](http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/20059/QuirozMaria.ANS420TermPaperFinal.pdf?sequence=1)

[ANS420TermPaperFinal.pdf?sequence=1](http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/20059/QuirozMaria.ANS420TermPaperFinal.pdf?sequence=1)

- Rawlins, B. (2009). Give the emperor a mirror: Toward developing a stakeholder measurement of organizational transparency. *Journal of Public Relations Research, 21*, 71-99. doi:10.1080/10627260802153421.
- Raynor, D. & Stradling, R. (21 August, 2014). Wake county's 1 millionth resident arrives Friday. *The News and Observer*. Retrieved from <http://www.newsobserver.com/news/local/counties/wake-county/article10037219.html>
- Robertson, T. S. & Rossiter, J. R. (1974). Children and commercial persuasion: An attribution theory analysis. *Journal of Consumer Research 1*, 13-20. doi:10.1086/208577
- Ryan, R. M. & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology, 52*, 141-166.
- Schiffman, S. S., Satterly Miller, E. A., Suggs, M. S., & Graham, B. G. (1995). The effects of environmental odors emanating from commercial swine operations on the mood of nearby residents. *Brain Research Bulletin, 37*, 369-375. doi:10.1016/0361-9230(95)00015-1
- Schweikhardt, D. B. & Browne, W. P., (2001). Politics by other means: The emergence of a new politics of food in the United States. *Review of Agricultural Economics 23*, 302–318.
- Scully, M. & Segal, A. (1999, September). *Passion with an umbrella: Grassroots activism in the workplace*. Paper presented at the Symposium on Changing Employment Relations and New Institutions of Representation.
- Seipel, M. (1949). AGSC 415: Ethical issues in sustainable agriculture. Retrieved from <http://agriculture.truman.edu/courses/agsc415.htm>

- Smith, R. F. (2007). Impact of unnamed sources on credibility not certain. *Newspaper Research Journal*, 28, 8-19.
- Sources of meat (2014). *FAO*. Retrieved from http://www.fao.org/ag/againfo/themes/en/meat/backgr_sources.html
- State and county quick facts: Iowa. (2015). *United States Census Bureau*. Retrieved from <http://quickfacts.census.gov/qfd/states/19000.html>
- State and county quick facts: North Carolina. (2015). *United States Census Bureau*. Retrieved from <http://quickfacts.census.gov/qfd/states/37000.html>
- Sternadori, M. M., & Thorson, E. (2009). Anonymous sources harm credibility of all stories. *Newspaper Research Journal*, 30, 54-66
- Tawse, J. (2010). Consumer attitudes towards farm animals and their welfare: A pig production case study. *Bioscience Horizons*, 3, 156-165.
doi:10.1093/biohorizons/hzq020.
- TeVelde, H., Aarts, N., & Van Woerkum, C. (2002). Dealing with ambivalence: Farmers' and consumers' perceptions of animal welfare in livestock breeding. *Journal of Agricultural and Environmental Ethics*, 15, 203-219.
- The North Carolina billboard campaign. (2015). *Waterkeeper Alliance*. Retrieved from <http://waterkeeper.org/pure-farms-pure-waters/north-carolina-cafo-campaign/the-north-carolina-billboard-campaign/>
- Thu, K., Donham, K., Reynolds, S., Thorne, P. S., Subramanian, P., Whitten, P., & Stookesberry, J. (1997). A control study of the physical and mental health of residents living near a large-scale swine operation. *Journal of Agricultural Safety and Health*, 3, 13-26. doi:10.13031/2013.17747

- U.S. Farms: Numbers, size, and ownership. (2005). *United States Department of Agriculture*. Retrieved from http://www.ers.usda.gov/media/862707/eib12c_002.pdf
- Vanhonacker, F., Verbek, W., Van Poucke, E., & Tuyettens, F.A.M. (2008). Do citizens and farmers interpret the concept of farm animal welfare differently? *Livestock Science*, *16*, 126-136. doi:10.1016/j.livsci.2007.09.017
- Vishwanath, A. (2014). Negative public perceptions of juvenile diabetics: Applying attribution theory to understand the public's stigmatizing views. *Health Communication*, *29*, 516-526. doi:10.1080/10410236.2013.777685
- Weiner, B. (2000). Attribution thoughts about consumer behavior. *Journal of Consumer Research*, *27*, 382-387.
- West, A. (2012). D.C. and Des Moines buses wrapped with ads exposing pork industry confinement. *Humane Society of the United States*. Retrieved from http://www.humanesociety.org/news/press_releases/2012/12/dc-desmoines-bus-pork-ads-121412.html
- Williams, J. R., Howe, J., Trainer, D., Snyder, C., Boillot, K., Lofgren, P., Holden, J. M. (2005). Nutritional changes in fresh pork cuts between 1991-2005. *Agricultural Research Service*. Retrieved from http://www.ars.usda.gov/SP2UserFiles/Place/80400525/Articles/IFT2006_PorkC omp.pdf
- Winter, S., & Kramer, N. C. (2014). A question of credibility: Effects of source cues and recommendations on information selection on news sites and blogs. *The*

European Journal of Communication Research, 39, 435-456.

doi:10.1515/commun-2014-0020

Worthington, A. K., Nussbaum, J. F., & Parrott, R. L. (2015). Organizational credibility:

The role of issue involvement, value-relevant involvement, elaboration, author credibility, message quality, and message effectiveness in persuasive messages from public health advocacy organizations. *Communication Research Reports*,

32, 199-207. doi: 10.1080/08824096.2015.1016153

APPENDICES

Appendix A

Table 1

State Pork Production Scene

	Population	National Pork Production Rating	Family Owned Farms	Annual Economic Impact	Individuals Employed in Pork Industry
NC	9.9 million	2	80%	\$11 billion	46,000
Iowa	3.1 million	1	94%	\$7.5 billion	40,290

Appendix B
Activism Orientation Scale

Instructions: Please respond to the following questions by choosing how likely it is that you will engage in each of the following activities in the future. Choose from: "Extremely - Unlikely," "Unlikely," "Likely," or "Extremely Likely."

	How likely is it that you will engage in this activity in the future?				
	Extremely Unlikely	Unlikely	Undecided	Likely	Extremely Likely
1. Display a poster or bumper sticker with a political message?	0	1	2	3	4
2. Invite a friend to attend a meeting of a political organization or event?	0	1	2	3	4
3. Purchase a poster, t-shirt, etc. that endorses a political point of view?	0	1	2	3	4
4. Serve as an officer in a political organization?	0	1	2	3	4
5. Engage in a political activity in which you knew you will be arrested?	0	1	2	3	4
6. Attend an informational meeting of a political group?	0	1	2	3	4
7. Organize a political event (e.g. talk, support group, march)?	0	1	2	3	4
8. Give a lecture or talk about a social or political issue?	0	1	2	3	4
9. Go out of your way to collect information on a social or political issue?	0	1	2	3	4
10. Campaign door-to-door for a political candidate?	0	1	2	3	4
11. Present facts to contest another person's social or political	0	1	2	3	4

statement?

12. Donate money to a political 0 1 2 3 4
candidate?

candidate?

13. Vote in a non-presidential 0 1 2 3 4
federal, state, or local election?

federal, state, or local election?

14. Engage in a physical 0 1 2 3 4
confrontation at a political rally?

confrontation at a political rally?

15. Send a letter or e-mail expressing 0 1 2 3 4
a political opinion to the
editor of a periodical or television

editor of a periodical or television

show?

16. Engage in a political activity in 0 1 2 3 4
which you feared that some
of your possessions would be
damaged?

of your possessions would be
damaged?

17. Engage in an illegal act as part of 0 1 2 3 4
a political protest?

a political protest?

18. Confront jokes, statements, or 0 1 2 3 4
innuendoes that opposed a
particular group's cause?

innuendoes that opposed a
particular group's cause?

19. Boycott a product for political 0 1 2 3 4
reasons?

reasons?

20. Distribute information 0 1 2 3 4
representing a particular social or
political group's cause?

representing a particular social or
political group's cause?

21. Engage in a political activity in 0 1 2 3 4
which you suspect there would be a
confrontation with the police or
possible arrest?

which you suspect there would be a
confrontation with the police or
possible arrest?

22. Send a letter or email about a 0 1 2 3 4
political issue to a public

political issue to a public

official?

23. Attend a talk on a particular group's social or political concerns?	0	1	2	3	4
24. Attend a political organization's regular planning meeting?	0	1	2	3	4
25. Sign a petition for a political cause?	0	1	2	3	4
26. Encourage a friend to join a political organization?	0	1	2	3	4
27. Try to change a friend's or acquaintance's mind about a social or political issue?	0	1	2	3	4
28. Block access to a building or public area with your body?	0	1	2	3	4
29. Donate money to a political organization?	0	1	2	3	4
30. Try to change a relative's mind about a social or political issue?	0	1	2	3	4
31. Wear a t-shirt or button with a political message?	0	1	2	3	4
32. Keep track of the views of members of Congress regarding an issue important to you?	0	1	2	3	4
33. Participate in discussion groups designed to discuss issues or solutions of a particular social or political group?	0	1	2	3	4
34. Campaign by phone for a	0	1	2	3	4

political candidate?

35. Engage in any political activity in which you fear for your personal safety? 0 1 2 3 4

Source Credibility Scale

Instructions: Please respond to the following questions by choosing what your reaction and perceptions of the article you just read are.

What did you think of the article you read?

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
Knowledge-able	1	2	3	4	5	6	7
Influential	1	2	3	4	5	6	7
Passionate	1	2	3	4	5	6	7
Transparent	1	2	3	4	5	6	7
Reliable	1	2	3	4	5	6	7

Message Credibility Scale

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
Authentic	1	2	3	4	5	6	7
Insightful	1	2	3	4	5	6	7
Informative	1	2	3	4	5	6	7
Consistent	1	2	3	4	5	6	7
Focused	1	2	3	4	5	6	7

Accurate	1	2	3	4	5	6	7
Timely	1	2	3	4	5	6	7
Popular	1	2	3	4	5	6	7

Pork Industry Knowledge Questionnaire

Please choose true or false to the following statements:

1. Hog farms are routinely inspected by state officials for waste management practices **T**
2. More than 80% of farms are family owned and operated **T**
3. The pork industry makes a considerable impact on your state's economy and job opportunities. **T**
4. There is no formal set of ethical principles that pig farmers adhere to that ensures public health, animal well-being, or the care of the environment. **F**
5. A family farm has less than 100 pigs. Farms with more pigs than that is considered a large-scale, corporate farm. **F**

Family farms are restricted to less than 100 pigs.
6. Pig farmers are fined by the state if any hog waste is not managed properly or enters fresh waterways. **T**
7. Hormones are not used to speed the growth of pigs and are prohibited federally. **T**

The use of hormones to speed the growth of pigs are prohibited by federal regulations.
8. My state is not a leading producer of pigs nationally. **F**
9. Most hog farms work with a veterinarian that makes routine checks on the farm. **T**

10. Compared with 50 years ago, farmers are using less land and water to produce pork, and they are doing so with a smaller carbon footprint. **T**

Appendix C

Stimuli Articles

NC Pro

Researcher Questions USGS Study Design: Wetland Acreage – Not Animal Population – is Significant Predictor of Water Quality

RALEIGH, NC—(June 23, 2015):

The North Carolina Pig Farmers (NCPF) has published a study that brings into question the design and data from a U.S. Geological Survey (USGS) analysis of water quality and North Carolina agriculture.

Two important conclusions are noted in the NCPF study, conducted by Dr. Wilson Shafer, a researcher in North Carolina State University's Marine, Earth and Atmospheric Sciences Department and chief scientist with Land and Water Solutions, Ltd.:

1. The most significant predictor of water quality in streams is the amount of wetland acreage in a watershed, not the number of animals located nearby.

2. Data and study limitations prevent any meaningful correlation between surface water quality and the swine population in Eastern North Carolina. Shafer reported that too few samples were collected, and that variations in land use, watershed sizes, soil types, and rainfall amounts were not addressed. Further, discharge data were not collected and downstream sampling was not performed.

“Surface water quality in agricultural areas is a complex issue,” said Joe White, chief executive officer of the NCPF.

“When we began reviewing the initial data from the USGS study, we believed it was our duty – to our state economy, our consumers and our industry – to take a deeper look.” White continued, “While we believe the USGS work is well-intentioned and potentially helpful to the pork industry, we decided a second scientific opinion on the design and execution of the study, and the data used therein, would be valuable.” White added, “Water quality issues do not stem from a single source. And, if we are going to protect water quality, we must have collaborative conversations, investments and solutions coming from all parties.”

The pork industry in North Carolina has a long history of encouraging credible science to protect the environment.

--Written by Bryan Adams, NCPF

About the N.C. Pig Farmers:

The North Carolina Pig Farmers (NCPF) is the statewide organization chartered in 1965 to support producers and allied industry partners within the North Carolina pork industry. Today, the pork industry in the state includes more than 2,300 farms, about 46,000 full-time jobs and adds \$11 billion to North Carolina's economy.

NC Con

USGS Study Shows That Pollution from Hog and Poultry Operations has Significant Impacts on North Carolina's Waterways

RALEIGH, NC-- (June 23, 2015):

A recent United States Geological Survey (USGS) discussed the impact of concentrated animal feeding operations (CAFOs) on water quality in North Carolina. The multi-year study was conducted with the NC Department of Environment and Natural Resources (DENR). The study results clearly showed how industrial swine and poultry operations are polluting waterways.

Other studies have shown similar results, but have been overlooked by DENR and considered inconclusive. However, there is no denying the results of their very own study. DENR should recognize these results and take more responsibility in enforcing laws. Illegal discharges of pollution into North Carolina waterways should not be without consequence.

North Carolina hog farms were once traditional family farms, but they have now largely been replaced with the industrialization of pork production. Before the odorous and polluting factory farms came onto the scene, the air smelled clean, waterways were clean, and fish were healthier. These farm areas are a burden to low-income communities and minority groups such as African Americans, Latino, and Native Americans.

The roughly 10 million hogs being raised in North Carolina factories are producing an enormous amount of fecal matter and there are no wastewater treatment facilities to manage it. Instead, the waste is placed in cesspools called lagoons where the waste is later sprayed onto farm fields. This exposes the environment to dangerous toxins, as well as emits ammonia and methane. It is time for the industry to modernize these archaic practices and invest in our communities. Raise a stink and stop industrial swine pollution.

---Written by Bryan Adams, River Preservers

About River Preservers:

River Preservers is a global movement uniting more than 260 River Preservers organizations around the world and focusing citizen advocacy on issues that affect our waterways, from pollution to climate change. River Preservers patrol and protect more than 2 million square miles of rivers, streams and coastlines in the Americas, Europe, Australia, Asia and Africa.

Iowa Pro **HSUS Bus Ads Target Gestation Crates**

DES MOINES, IA-- (June 23, 2015):

The Humane Society of the United States (HSUS) announced a new ad campaign targeting the issue of gestation crates via city bus seats. The campaign asks bus riders in Washington, DC and Des Moines, Iowa, "How would you like to spend the rest of your life in a space as small as a bus seat?", a comparison to the size of gestation crates. The crates are used to house sows in hog operations.

The buses also are wrapped with images of "inhumane confinement conditions" that HSUS says is hidden from the public. The ads direct viewers to a HSUS website that includes an online petition urging the end of gestation stalls.

Joe White, President of the National Pork Producers Council, stressed in a NPPC statement, that hog producers are committed to producing food using production practices that have been designed with input from veterinarians and other animal-care experts.

"Providing humane and compassionate care for our pigs at every stage of life is one of the ethical principles to which U.S. hog farmers adhere," White concluded. White also said the ads were "uninformed propaganda."

"It is unfortunate that people in Des Moines and Washington, D.C., have to experience such uninformed propaganda from a radical special interest group, whose leader has made it clear that the group's mission is to end animal agriculture," White said.

Despite the negative ads, pork producers are hopeful that Iowans remember their agriculture roots and the positive impact on the state. Iowa is the top ranked hog producer and the pork industry provides over 40,000 jobs for Iowans. The Iowa Pig Farmer Council (IPFC) says that they and all Iowa pig farmers are committed to treating their pigs right and being a positive contributor to the community. Gestation crates have long been a source of contention between special interests, consumers, farmers, and foodservice.

Written by Bryan Adams, IPFC

About IPFC:

IPFC serves as a unified voice for Iowa's pork producers. IPFC is a grassroots organization that consists of approximately 70 structured county associations across the state, with more than 4,000 affiliated and associate members. Every producer, regardless of size, has a voice in IPFC through a county-elected delegate system.

Iowa Con

Des Moines Bus Ads Expose Pork Industry Confinement

DES MOINES, IA—(June 23, 2015):

Pedestrians and motorists in the nation’s capital and the capital of the largest pork-producing state are now seeing municipal buses almost fully wrapped with actual images of the inhumane confinement conditions that breeding pigs endure inside factory farms – a practice that is typically hidden from public view by the pork industry. The ads have been placed by The Farm Animal Protection Coalition (FAPC) to raise awareness about the intransigence of companies and producers that continue to defend the use of gestation crates, even while so many other many pork producers and retailers have committed to phasing them out.

The ads pose the question, “How would you like to spend the rest of your life in a space as small as a bus seat?,” and display large images of pigs in gestation crates—which are used by most of the pork industry to virtually immobilize breeding pigs for most of their lives.

“These new ads shine a bright spotlight on a world of inhumane treatment that Big Pork would prefer remained hidden,” says Paul Shapiro, vice president of farm animal protection at The FAPC. “The pork industry’s leadership should stop defending what most Americans know is indefensible and instead help its industry transition away from gestation crate confinement systems.”

The pork industry trade groups that defend gestation crates are increasingly at odds with leading companies in the food industry. Recent pledges to move away from gestation crates made by many leaders of the fast food and grocery industries. Other leading food companies signal a sharp reversal in a misguided, three-decade-old campaign to replace animal husbandry with animal confinement. Gestation crates are roughly the same size as the animals’ bodies and designed to prevent them from even turning around. The animals are subsequently transferred into another crate to give birth, re-impregnated, and put back into a gestation crate.

“It is wrong to immobilize animals for their entire lives in crates barely larger than their bodies,” adds Joe White, president and CEO of The FAPC. “All animals deserve humane treatment, including those raised for food.”

Written by Bryan Adams, FAPC

About FAPC:

The Farm Animal Protection Coalition is one of the nation’s largest and most effective animal protection organizations. We and our affiliates provide hands-on care and services to more than 100,000 animals each year, and we professionalize the field through education and training for local organizations. We are the leading animal advocacy organization, seeking a humane world for people and animals alike. We are driving transformational change in the U.S. and around the world by combating large-scale cruelties such as puppy mills, animal fighting, factory farming, seal slaughter, horse cruelty, captive hunts and the wildlife trade.

Image to be used in all stimuli articles:

