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Abstract

Consumer interest in organic food has increased in recent years due to concerns over conventional production practices, health standards and environmental protection. Organic food production can be viewed as both an ally and rival of traditional agriculture. Americans tend to be more susceptible to media coverage about production agriculture. Determining how the media frames organic food is important because news frames can determine what becomes salient in conversations from the dinner table to Capitol Hill. This study employed qualitative content analysis methodology to discover how five national newspapers framed organic foods during an 18-month period. Emergent frames included "ethical," "health," "production," and "industrialization." Emphasis was placed on the ethical and moral reasons to purchase organic food with limited discussion of the scientific evidence for consumer claims of superior quality, safety, and nutrition. Overall, common sources included consumers, industry representatives, and organic farmers. Future research should utilize the identified frames to examine news coverage over a longer time frame and in additional media such as agricultural magazines.

Keywords

Consumer, industrialization, ethical and moral reasons, magazines, Media Coverage, organic and natural food

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Abstract

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So What?

The organic and natural food markets have experienced tremendous growth recently due to an increase in consumer demand for these products. When consumers seek information to make food purchasing decisions, one of the most trusted sources is the media. How the media covers agriculture is important because it can influence consumers' perceptions of how food is produced, handled, or processed. Understanding how agricultural topics have been presented (or framed) in the media helps agricultural communicators understand what is being said and by whom. This perspective then helps agricultural communicators determine what additional information is necessary to support or correct that coverage. This article provides that perspective for the specific topic of organic foods with the purpose of discovering what frames are used in this coverage.

Introduction

Consumers' desire for food that is healthy, safe, and ethically produced often motivates them to buy organic food as insurance and/or investment in health (Yiridoe, Bonti-Ankomah, & Martin, 2005; Zehnder, Hope, Hill, Hoyle, & Blake, 2003). This purchasing behavior has encouraged the rapid growth in the organic and natural food market in recent years. Once limited to a small number of retail stores, organic foods are now available in natural supermarkets, conventional supermarkets, farmers' markets, and discount club stores (Greene et al., 2009).

In 2008, the sale of organic food products was more than \$22 billion, which represented a 15.8% increase in sales from 2007 (Organic Trade Association, 2009). Produce (fruits and vegetables) and dairy products account for more than half of organic sales, followed by beverages, packaged foods, bread and grains, snack foods, sauces, and meat (Greene et al., 2009). A poll of U.S. consumers by the market research firm Harris Interactive found that 31% of consumers buy organic food occasionally while a smaller percentage (7%) purchase organic food "all or most of the time" ("Harris poll results," 2007).

Studies report that consumers purchase organic foods because they perceive them as higher in nutritional value, chemical free, environmentally friendly, and better tasting than conventionally produced food (Scholderer, Nielsen, Bredahl, Claudi-Magnussen, & Lindahl, 2004; Magkos, Arvaniti, & Zampelas, 2006). The Harris Poll found that more than three-quarters of the U.S. public believes organic food is safer for the environment (79%) and healthier (76%) than conventional foods ("Harris poll results," 2007). However, whether organic food actually delivers on these desires and beliefs is controversial and the subject of scientifically inconclusive debate (Obach, 2007). Factors prohibiting consumers from purchasing organic foods include price, lack of knowledge, lack of trust, and limited availability (Yiridoe et al., 2005; California Institute for Rural Studies, 2005).

The majority of the general U.S. public has little or no direct knowledge of farm practices and food processing and "as a result, members of that general public are more familiar with and susceptible to media and other information sources, which likewise do not have expertise in agriculture and are oriented more toward reporting controversies" (Zimbelman, Wilson, Bennett, & Curtis, 1995, p. 154). When writing news articles, journalists use frames to organize stories and put the story in context with other events (Gamson & Modigliani, 1989). Because the media serve as the most trusted source of food-related risk information (Frewer, Howard, Hedderley, & Shepherd, 1996), it is therefore important to discover how agricultural topics, such as organic foods, are being presented in media coverage.

Literature Review

The U.S. Department of Agriculture (USDA) established the National Organic Program in October 2002 to assure consumers that organic-labeled products were produced, processed, and certified to meet consistent national organic regulations. For organic meat production, the standards prohibit the use of antibiotics and growth hormones, require animals to be fed 100% organic feed, and require animals to have access to outdoors and pasture for ruminants. For organic crop production, the standards prohibit the use of genetic engineering, radiation, sewage sludge, and unapproved synthetic pesticides and materials (USDA National Organic Program, 2008).

Consumers want to be confident their food is safe, and organic food is often equated with safer food. Perceptions of food safety typically relate to concern about food production technologies. In the United States, concern is highest for pesticides and hormones, followed by antibiotics, genetic modification, and irradiation (Hwang, Roe, & Teisl, 2005). The USDA organic regulations address these concerns, and the USDA certified organic label distinguishes the food as free of those perceived risks. Because the organic standards are not imposed on all food producers nor required for any health or environmental reasons, a theoretical, ethical, and scientific debate has emerged in the United States (Obach, 2007).

The debate

The debate surrounding organic food focuses on a variety of specific, and supposedly demonstrable, characteristics that proponents claim make it superior to conventional farming and processed products. How organic food is grown, handled, and processed is the only differentiation from conventionally produced food (USDA NOP, 2008). The use of chemical pesticides and fertilizers is a common practice in conventional agriculture. The presence of pesticide residues in food is known, but the degree of risk posed by these residues remains uncertain. The Organic Trade Association (2008a) asserts that organic agriculture protects the health of people and the planet by reducing the overall exposure to toxic chemicals from synthetic pesticides that can end up in the ground, air, water and food supply, and that are associated with health consequences from asthma to cancer. Trewavas (2004) reported that although studies have found that the presence of these chemicals can be reduced by switching to an organic food diet, the health effects, if any, are unknown..

Organic advocates also assert that organic agricultural production benefits the environment through the use of "earth-friendly" practices such as protecting ground water supplies and reducing chemical runoff (Organic Trade Association, 2008b). However, conventional agriculture proponents argue that the application of synthetic nutrients will always be required to sustain a global agriculture system that feeds the world's growing population (U.S. Geological Survey, 1999). "While chemical inputs [for organic food production] are somewhat limited, greater usage of naturally occurring substances that are as environmentally damaging as some synthetic chemicals will inevitably grow, if they prove more cost-effective" (Obach, 2007, p. 236).

A review of 162 studies conducted over 50 years found that organic food had no nutritional or health benefits over conventional food (Dangour et al., 2009). A few studies have shown organic food may be higher in vitamin C, but other studies attempting to prove so have not been consistent (Trewavas, 2004). Organic food that comes from local sources may taste better than conventional food, but then it is a matter of freshness, not production technique. Studies conducted with trained taste panels and consumers have found little to no difference in taste between organic foods and conventional foods (Fillion & Arazi, 2002). Consumers' perceptions of the merits of a production system are highly likely to influence their perception of the quality of a product produced from such a system (Edwards, 2005).

Framing theory

Frames are cultural structures that organize understanding of social phenomena. Frames are used to determine what content is relevant to discussion of a concern; to define the roles of stakeholders, to outline relevant beliefs, actions, and values; to determine the language used to discuss the topic; and to outline the values and goals of the content area (Hertog & McLeod, 2001). Framing involves the selection of some aspects of a situation and making them more salient through communicating text to perform four main functions: define problems, diagnose causes, make moral judgments, and/ or suggest remedies (Entman, 1993). Frames are used every day to organize life experiences and make sense of them (Goffman, 1974).

Journalists use frames to filter large amounts of information, determine what is important, and efficiently communicate that information to their audiences (Gitlin, 1980). "The news frame organizes everyday reality and the news frame is part and parcel of everyday reality...[it] is an essential feature of news" (Tuchman, 1978, p. 193). News frames have significant impact on audience members' interpretation of issues and resulting attitudes by emphasizing certain elements of a controver-

sial topic to shape readers' opinions and policy preferences. How audience members interpret issues may depend on how the media chooses to select and present issues (Price, Tewksbury & Powers, 1995). When a frame is used to discuss a topic familiar to audience members, it increases consideration of pre-existing beliefs. However, when a frame is used to explain a topic unfamiliar to audience members, the new perspective can influence changes in opinion (Tewksbury, Jones, Peske, Raymond, & Vig, 2000).

Interest groups attempt to gain favorable public opinion and policymaker support by supplying new facts or changing interpretation of those facts. Even more so, they work to change the frames that are used to evaluate the facts and the issue (Miller & Riechert, 2001). Andsager (2000) examined how pro-life and pro-choice interest groups attempted to frame the late-term abortion debate. Findings indicated that the sources selected for news stories can influence the terminology used in news text and impact the framing of the article.

Framing research has been conducted to examine how food-related issues such as biotechnology (Lundy & Irani, 2004) and mad cow disease (Ruth, Eubanks, & Telg, 2005; Ashlock, Cartmell, & Keleman, 2006) are framed in print media, but no research has been conducted to explore framing of organic food in the U.S. media.

Purpose and Research Questions

The purpose of this exploratory study was to discover how frames are used in the news coverage of organic foods, which may influence the debate around the topic. A review of the literature pertaining to organic food and framing theory suggests the following research questions:

Research Question 1: How have the national print media framed organic food as an issue?

Research Question 2: What sources are utilized and with what frames are they associated?

Methodology

To answer the research questions, the study utilized a qualitative content analysis research design. Altheide (1996) said the goal of qualitative research is to understand the characteristics of documents and what they represent in the broader social context. Qualitative data analysis does not focus on counting or coding, although these techniques can assist in the research process. Instead, qualitative data analysis is utilized to gain a thorough understanding of documents under study and how they relate to theoretical or conceptual issues (Altheide, 1996).

Because the organic food market is not restrained to a geographic area, five national newspapers were selected: The New York Times, The Washington Post, Los Angeles Times, Atlanta Journal & Constitution, and Chicago Sun-Times. The New York Times was selected because it is recognized for its extensive readership and quality of reporting. The Washington Post was selected because of its coverage of political issues such as new legislature. These two newspapers also represent the East Coast. The remaining three newspapers were selected because they represent different geographical locations: West Coast, South, and Midwest.

The coverage time frame was March 1, 2005 to September 13, 2006. In March 2005, Whole Foods Market, the world's leading retailer of natural and organic foods, was named a Fortune 500 Company. For this reason, the data collection time period began when the economic significance of organic foods became evident. The end date was selected because it is before the September 14, 2006

E. coli outbreak in organic spinach. The researchers felt the news coverage of this food safety crisis would be unrepresentative of previous organic food coverage and bias the resulting frames.

Articles were collected using the Lexis-Nexis Academic online database by searching for the term "organic food" in the database's "headline, lead paragraph(s), terms" search parameter. News, feature, and opinion/editorial articles were included in the study. Letters to the editor, restaurant reviews, and book reviews were not included in analysis because these types of articles give an abbreviated account of organic food. Articles less than 300 words were rejected because the researchers believed these shorter pieces would not have an appropriate amount of detail to develop frames adequately. Articles that contained the search terms, but did not focus on organic foods were also excluded. The articles were cross referenced and duplicates eliminated.

Individual articles served as the unit of analysis and were each assigned an identification number. Following an initial training session, coders used a coding sheet to record newspaper name, date of publication, headline, type of article (news, feature, opinion/editorial, column), word length, and author. Coders analyzed each article to discover: (1) recurring themes in news coverage of organic food; (2) sources of direct and paraphrased quotations; and (3) dominant frames used to explain organic food.

Results

Using the article selection guidelines, 59 articles were found – 28 articles from *The New York Times*; eight articles from *The Washington Post*; four articles from the *Los Angeles Times*; 10 articles from the *Atlanta Journal & Constitution*; and 9 articles from the *Chicago Sun-Times*.

Research Question 1: How have the national print media framed organic food as an issue?

Examination of the articles for word choice, narratives, sources and structure revealed four major frames: ethical frame, health frame, production frame, and industrialization frame (see Table 1).

Table 1
Identified Frames by Newspaper

Newspaper	Ethical Frame	Health Frame	Production Frame	Industrialization Frame
The New York Times (n=28)	11	3	7	7
The Washington Post (n=8)	3	2	2	1
Atlanta Journal & Constitution (n=10)	5	4	0	1
Chicago Sun-Times (n=9)	3	3	2	1
Los Angeles Times (n=4)	2	0	1	1
Total (n=59)	24	12	12	11

Ethical frame

The most common frame utilized in the coverage of organic foods was the ethical frame. This frame was created through description of environmentalism and social responsibility. Terms and phrases that described this frame were: "environmentally friendly," "eco-friendly," and "ethical principles." Organic food was explained as beneficial for the environment because production of these foods does not use pesticides or chemicals. Emphasis on the environmental benefit of organic foods described the ethical superiority of these goods to conventionally produced food. This frame also discussed organic foods as a part of larger social movements such as "metrospirituality," which is a lifestyle based on treating people and the Earth with respect.

Articles with the ethical frame connected the increased consumer demand for organic products to social responsibility, which is a combination of personal values and beliefs. An article in *The New York Times* described one consumer's reasoning for purchasing organic food:

Ms. Gersten worried about what synthetic growth hormones, pesticides and antibiotics might do to her child and to the environment. She was concerned about the health of cows and the survival of local farmers. So she became one of the new mothers who are making milk the fastest growing slice of the organic market.

Buying organic was often equated with buying local to support local farmers and sustainable farming practices. Purchasing food at farmers' markets allows consumers to know the producers and how the food is produced. The lead sentence of an *Atlanta Journal–Constitution* article emphasized the argument to purchase local food: "A local organic farm owner wants the community to have vegetables grown by someone using the wisdom of nature rather than someone with a knowledge of pesticides." Several other articles discussed the "ethical principles" needed to determine what types of food to purchase. An article in *The Washington Post* described the personal dilemma of deciding what to buy:

The point is, choosing what to eat and drink has become hard work. It's not simply a case of taste or price. Now we have to ask ourselves: Is this good for my health? Have animals suffered? Is it local? Organic? Bad for the planet? Harvested by child workers?

Health frame

The health frame and the production frame were utilized in 12 of the articles analyzed. The health frame described organic foods as a source of nutrition and a solution to the current obesity problem in the United States. This frame emphasized organic foods as safe (free from pesticides and other chemicals), which elevated their health status. Keywords and phrases in this frame included: "natural, authentic, and healthy," "real food," and "health-oriented." Articles using this frame did not tout any specific health benefits of organic food, but they were framed as healthy in a holistic way.

This frame was used in articles that described organic foods as the superior food choice. An article in the *Chicago Sun-Times* demonstrated how parents are purchasing organic foods to provide the best food for their children.

Erin O'Neal has two daughters and a fridge stocked with organic cheese, milk, fruits and vegetables in her Annapolis, Md., home. She is among the increasing number of parents who buy organic to keep their children's diets free of food grown with pesticides, hormones, antibiotics or genetic engineering.

An *Atlanta Journal–Constitution* article described why a 10-year-old boy conducted a science fair project to share his organic diet with classmates:

Cal doesn't preach to his classmates about the virtues of an all-organic diet – he usually buys the school lunch rather than pack his own – but the science project gave him the chance to speak up. He eats grass-fed beef, wild-caught salmon and organic produce at home. "I want to be healthier because I don't want to be a guy that's overweight," Cal said. "I want to be a healthy guy. I want to live a long time."

This frame was evident in coverage of new organic food products. Several articles featured the organic market's expansion from the traditional produce section to the liquor store. An article in the *Atlanta Journal–Constitution* described how the taste of organic beer, made from organic malts and hops, has evolved: "Most organic beers taste like dirt," Sprouse says. "I didn't want to brew a beer like that." *The New York Times* ran an article explaining the new market of organic liquor:

It's hard to imagine a more congenial way of saving the world than sipping an eco-friendly cocktail, which may be why organic spirits – those distilled from grains, fruit or sugarcane that's been certified organic – are inching their way behind the bars of a few of the city's more crunchy establishments.

Production frame

The production frame discussed the production practices that influence supply and demand of organic food, including the cost and regulations facing the organic industry. These articles also debated the difference between organic and natural foods and the use of labeling to identify organic foods. Articles in this frame included keywords such as "labeling," "demand," "supply," "shortages," "cost," and "regulations."

An article about organic milk in the *Chicago Sun-Times* discussed the supply shortage: "Organic milk is moving so fast off the shelves at some Chicago-area stores that if you phone to see whether it's in stock, workers offer to put it on hold for you." The article went on to explain the need to recruit organic dairy farmers in order to meet the increased consumer demand.

The production frame focused on explaining how organic foods are produced. *The Washington Post* ran an article about the organic milk shortage and included details about the organic certification process. This information detailed the USDA's requirements for milk to be certified as organic.

The production frame also discussed issues facing farmers in the production of organic foods. An article in *The New York Times* focused on the coexistence of genetically modified and non-genetically modified crops: "Scientifically, there are strong disagreements about whether 'coexistence' is possible, at what cost and even how it should be defined." Another article in *The New York Times* explained the science of genetic modification and how organic foods are often genetically modified through

natural practices over centuries of time. This article addressed how alarmist warnings have pressured people into purchasing organic foods without truly understanding the science behind biotechnology.

The production frame also explained the difference between the labeling regulations of "organic" versus "natural." An article in *The New York Times* explained how the natural label, when applied to meat, is confusing and does not require as stringent production requirements as the organic label. A *Los Angeles Times* article discussed the confusion about the two terms when applied to meat.

"Consumers do not understand the difference between all-natural, grass-fed and organic beef," says Rick Machen, who grew up on a cattle ranch and is now a livestock specialist at Texas A&M University. "I don't understand them myself and I'm a university professor. It's something that the industry needs to work on so consumers fully appreciate and understand the differences between these products."

Industrialization frame

The final frame in the coverage of organic foods was the industrialization frame, present in 11 articles. This frame was identified by its focus on big businesses (e.g. Wal-mart, Target, Whole Foods Market) entering the organic market and threatening the organic ideology. The industrialization frame compared consumers' perception of organic food production to descriptions of corporate organic farms "just like their conventional counterparts." Traditional organic farming was characterized as a conscience and moral effort to "return to the land." Keywords such as "alternative to agribusiness," "sustainable," "family farm," and "small or local farms/farmers" were used to describe what organic farming should be and what it will lose once it is industrialized.

This frame demonstrated how the portrayal of organic food is shifting as large food companies enter the organic food market. An article in the *Atlanta Journal–Constitution* made the comparison between the traditional description of organic food and the contemporary description:

In the past, supporting organic farming also meant favoring locally grown food over mass-produced varieties that are often grown using greater quantities of fossil fuels for production and transport. On store shelves, the line between organic and mass-produced has blurred.

The industrialization frame discussed possible positive and negative outcomes related to big business entering the organic food industry. One article in *The New York Times* presented both sides of the debate:

Some organic food advocates applaud the development, saying Wal-Mart's efforts will help expand the amount of land that is farmed organically and the quantities of organic food available to the public. But others say the initiative will ultimately hurt organic farmers, will lower standards for the production of organic foods and will undercut environmental benefits of organic farming.

Much of the debate about big businesses entering the organic food market deals with the use of the organic label. A column in *The Washington Post* discussed the confusion over what the organic label means:

The meaning of the organic label rests on a shifting balance between what the corporate lobbies want and what the watchdogs can prevent. Most organic brands are now niche labels of larger food companies that have no interest in the finer, more holistic aspects of the grower's craft.

Research Question 2: What sources are utilized and with what frames are they associated? Table 2 displays the sources used in each of the four identified frames.

Table 2
Sources Used in Identified Frames

Frame	Sources Used
Ethical	organic consumers, organic proponents, and organic farmers or business owners
Health	consumers, researchers, an advocate organization, and nutritional experts
Production	organic farmers, scientists, and organic industry representatives
Industrialization	corporate spokespersons, organic advocacy groups, sustainable agriculture proponents and groups, and organic farmers

Ethical frame

Sources in the ethical frame were organic consumers, organic proponents, and organic farmers or business owners. Organic consumers and proponents described personal values and beliefs that correspond with purchasing organic foods. A feature article in the *Chicago Sun-Times* about Mary-Jane Butters (a mother, organic farmer, and "American's organic lifestyle maven") used a quote that illustrated a common viewpoint found in the ethical frame:

"Food nurtures us in so many ways that it's important to support the family farm and locally grown foods," says the farm girl-turned-advocate. "It's an easy choice – do you want a naturally-grown organic apple or an apple with 52 chemical ingredients? I'm not righteous about it, but I just think of all the things you spend your money on, food offers the best investment – it's like life insurance. When you buy at farmers markets and organic restaurants, you'll save money in the long run on medical bills and you'll be supporting a beautiful [farm] landscape."

Author Michael Pollan was utilized as a source in several articles because his book, "The Omnivore's Dilemma," was released during the study time frame. He was often referred to in columns and editorials about the need to purchase organic or local foods. In an article in *The Washington Post*, Pollen was asked why organic food often costs more, he said: "It's a crime that only the fairly affluent in this country can afford to eat healthy food. But the problem is not that that food is so expensive. It's that industrial food is so cheap."

Organic business owners positioned their companies as values-based because of the characteristics of the organic industry. An article in *The New York Times* quoted an organic company owner: Making a living is important, Ms. Mitzner said, but the main goal is "buying, selling and promoting

products that are socially responsible and environmentally sustainable – because after all, that's all we've got as people on this planet."

Health frame

In the health frame, sources included consumers, researchers, an advocate organization, and nutritional experts. Consumers often cited health and safety concerns as motivation to eat organic and live a healthy lifestyle. A mother quoted in *The New York Times* explained why she began buying organic foods: "There's so much out there that I can't protect them from," she said of her children. "At least their home and the food they eat should be as safe as I can make it."

Another mother quoted in the *Chicago Sun-Times* justified her decision to purchase organic foods for her family: "The pesticide issue just scares me – it wigs me out to think about the amount of chemicals that might be going into my kid," said O'Neal, 36.

The director of the Center for Culinary Development, which develops recipes for food companies, was quoted in *The New York Times* about the interest in healthy, natural, and authentic food: "The move to 'real' food has legs and will be around for quite a while," said Marc Halperin.

The Environmental Working Group, an advocacy group, was cited in a *Chicago Sun-Times* article because it provides a guide about which types of produce have high or low levels of pesticides – a commonly cited health concern for consumers.

Nutritional experts such as pediatricians, doctors, and nutritionists were cited sparingly to testify to the nutritional content of organic food, but did not make specific health claims to posit organic is better than conventionally produced food.

Production frame

Organic farmers, scientists, and organic industry representatives were the most quoted sources in the production frame. Organic farmers were utilized as sources to describe the production practice and the commitment they place on providing high quality food through accepted organic practices. A feature article in *The New York Times* highlighted the organic farming practices of Joel Salatin: He describes his methods as "beyond organic" and has pioneered techniques that admiring colleagues and competitors describe as above reproach.

Organic farmers were described as dedicated to practicing organic production techniques. An article in *The New York Times* quoted a Spanish farmer who, upon learning that his crop contained 12% genetically modified corn, burned the corn still in his field: "If I could not farm organic, I would not farm," said Mr. Navarro, dressed in sweatpants and a stained T-shirt as he sipped coffee in his shed. "I could not sleep at night if I sold that crop."

Several scientists presented information about the debate surrounding agricultural biotechnology or genetically modified foods, which are often viewed as the opposite of organic foods. Dr. Henry I. Miller, a fellow at the Hoover Institution and co-author of "The Frankenfood Myth" provided information about the safety of genetic modification: "There hasn't been a single untoward event documented, not a single ecosystem disrupted or person made ill from these foods," he said in an interview.

Organic industry representatives included spokespeople for organic interest groups or organic food companies. Sue McGovern, spokesperson for Organic Valley brand foods, was quoted in a *Chicago Sun-Times* article to explain why organic milk production could not meet consumer demand.

An article in *The Washington Post* about the organic milk shortage also quoted representatives from organic food companies: "You can't push a button and get more organic cows," said Cathleen Toomey, a spokesperson for organic producer Stonyfield Farm.

Industrialization frame

In the industrialization frame, sources were typically corporate spokespersons, organic advocacy groups (i.e. Organic Trade Association and Organic Consumers Association), sustainable agriculture proponents and groups, and organic farmers. Corporate spokespersons and the Organic Trade Association defended big business' entrance into the organic market by saying they are making organic food more affordable and improving the image of their store and/or products. Karen Burk, spokesperson for Wal-Mart, expressed this viewpoint in an *Atlanta Journal-Constitution* article:

"Although we have sold organic food products for some time, our customers have not always thought of Wal-Mart as a place to find them," said company spokesperson Karen Burk. "We want them to know that we have these products, and that we have them at prices that are better than those offered by the competition."

Sustainable agriculture proponents and organizations attributed their ideology of organics to that which more closely resembles the production practices of small organic producers. An article in *The New York Times* quoted Ronnie Cummins, national director of the Organic Consumers Association, discussing Wal-Mart's plan to enter the organic food business: "[Wal-Mart is] going to end up outsourcing from overseas and places like China," he said, "where you've got dubious organic standards and labor conditions that are contrary to what any organic consumer would consider equitable."

Organic farmers provided quotes about their opinions regarding big business entering the organic food market. Although many farmers did not share this viewpoint, an article in the *Atlanta Journal-Constitution* paraphrased one producer:

Organic farmer Stufflebeam concedes that the increased corporate presence in the market has probably taken business away from some independent organic farms, but, at the same time, mainstream chains are increasing public awareness of organic foods in general.

Conclusions

The USDA National Organic Program (2008) distinguishes organic foods from conventionally produced foods only in how they are grown, handled, and processed. This definition does not introduce issues related to sustainability, environmentalism, nutrition, or taste. However, the selected national newspapers portrayed organic food as part of a moral and ethical responsibility for the environment, society, and consumers' health. The ethical frame suggested that consumers who chose to buy organic food care about the environment, are concerned with sustainability, and support small farmers or local businesses. This frame featured quotes from consumers about why they purchase organic foods, and these quotes coincide with prior studies (Yiridoe, et al., 2005; California Institute for Rural Studies, 2005).

Articles with the health frame presented organic food as superior in terms of its health benefits, safety, and quality. Although studies have not found a difference in taste between organic and conventional foods (Fillion & Arazi, 2002), sources in this frame presented organic food as a better

food choice. The confusion was often in describing organic food and local food as one in the same; however, this is not always the case. By means of comparison, conventional food production was often explained as inferior in safety, quality, and moral standards. This representation of organic food makes it seem elitist because consumers who care about ethical issues will pay the higher price to purchase it.

The production frame focused on how organic foods are produced and how consumer demands are being met. This frame included feature articles about organic farmers who presented the idealistic reasons they chose to grow organic foods; however, these articles did not address why some farmers have chosen not to produce organic foods. Currently, organic food production accounts for a small percentage of the total U.S. food production. Although several farmers were used as sources in the production frame articles, no conventional farmers were quoted to provide balance.

The emphasis of the industrialization frame demonstrated the increasing consumer demand for organic foods and the need for larger businesses to meet this demand. However, the articles in this frame portrayed big business as ruining the humble, small-farm ideology associated with organic food production. An overlooked area was how the increase in consumer demand was going to be met, if not by larger businesses.

The findings from this study indicate that the national news media emphasized the ethical and moral reasons to purchase organic food. The limited discussion of scientific evidence for the claims of superior quality, safety, and nutrition contributes to consumers' dependence on personal morals and ethics. A phrase in a *New York Times* article justifies the need for additional emphasis on explaining the science surrounding food: "It is no secret that the public's understanding of science, and genetics in particular, is low."

Implications and Recommendations

The media examined in this study favored organic food and the organic ideology. By not balancing coverage of the topic with scientific evidence or other viewpoints, they are perpetuating an ideology rather than providing facts for consumers to make their own decisions. The media avoided pointing out the uncertainties surrounding supposed health risks of conventionally produced foods and supposed health benefits of organically produced foods.

The frames discovered in this exploratory study provide the framework for additional quantitative studies to research different time periods and media sources. For example, this study did not include coverage of the E. coli outbreak (on September 13, 2006) in organic spinach. A framing analysis of this food safety crisis event would reveal if and/or how the frames were adjusted to portray organic food and the production process. A longitudinal study would further examine how organic foods are being framed over time and in relation to key events, such as the food safety scares involved E. coli in spinach or salmonella in peanut butter. Additional research should investigate coverage of organic foods in production agriculture magazines (i.e. *Progressive Farmer, Successful Farming*) to determine how this type of agriculture is being discussed with agricultural audiences.

Miller and Riechert (2001) said interest groups can attempt to frame issues by supplying new facts or changing interpretation of those facts. Additional research should evaluate how organic interest groups (i.e. Organic Consumers Association, Organic Trade Association) frame issues in news releases, speeches, and quotes and how that influences the overall frame in the media. As the organic food industry continues to grow, consumers will seek information from numerous sources, including print media. Therefore, how the print media utilizes frames to improve readers' understanding

Agricultural communications practitioners need to continue to provide factual information regarding both conventional and organic foods. This information needs to address consumer concerns for sustainability, environmental impact, nutrition, and taste. The organic food trend appears to be growing in popularity and consumers will continue to seek information to make informed purchasing decisions. If agricultural communicators' intentions are to connect with their audiences and create public value for agriculture, then organic agriculture could be a route to inform consumers who may not otherwise be curious about production practices. However, a dilemma exists in how to promote conventional or organic agriculture without unfairly criticizing the other. This presents a challenging situation for agricultural communicators.

While educational efforts will be a part of the solution, the positive attitudes toward organic agriculture are already in place, even if they may be based on marginal scientific evidence. It is difficult to change attitudes that have already been formed (Perloff, 2008); therefore, a more proactive communication approach is needed. As the agriculture industry changes and evolves, it will continue to face challenges in which it seems if only the public and media were more educated or informed, they would make better decisions. Oftentimes, traditional agriculture takes a more reactive approach and tends to "circle the wagons" when threatened by attacks that seem unfounded or emotional. In an era when journalists may blatantly ignore the conventional agriculture argument, as evidenced in the *Time Magazine* cover story by Bryan Walsh (2009) entitled "Getting Real About the High Price of Cheap Food," we have to ask ourselves how we can communicate more meaningfully without trivializing the positive attitudes and beliefs toward organic agriculture or attacking conventional practices. The media will continue to seek information regarding this topic and agricultural communication practitioners should be prepared to provide newsworthy, meaningful information.

Keywords

organic food, framing, content analysis, media, newspapers, organic debate

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