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Jason D. Ellis
Kansas State University

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Abstract

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ACE Headquarters

Holly Young, Executive Director
59 College Road, Taylor Hall
Durham, NH 03824
(855) 657-9544
ace.info@unh.edu

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Research

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Research

Finding the Five R's in Exemplary Agricultural Publication Capstone Courses

Traci Rushing, Jefferson D. Miller, Leslie D. Edgar, and Casandra Cox

Abstract

This study sought to characterize three exemplary agricultural communications magazine capstone courses at three different universities. The purpose of the research was to describe the characteristics leading to the courses' success. Following a qualitative research approach, the investigator conducted personal interviews with students and instructors in each course, made field observations, and examined syllabi. The interviews were crafted after Andreasen's (2004) Five R's model for quality capstone courses. Important characteristics of the three exemplary magazine capstone courses included (1) student responsibility for the entire magazine production process, (2) high-quality standards that were comparable to those expected in industry, (3) interaction with professionals in the publication and printing industry, and (4) the revisiting of previously fragmented knowledge through refresher lessons. Further, because capstone courses often serve as a rigorous "rite of passage" for agricultural communications students as they transition to their professional careers, students need positive reinforcement to make it through key moments in the course. These moments of positive reinforcement helped students gain confidence in their skills as professionals. The researchers concluded that providing students with a real-world experience and positive reinforcement was essential to the success of these courses. Students felt expectations for deadlines, quality of work, and attendance was similar to what they would expect in the workforce. In turn, they thought this would help them prepare to enter into their careers. Recommendations for practice include integrating these characteristics into new and existing magazine capstone courses. In addition to these practical recommendations, the results also lead to the recommendation of modifications to Andreasen's (2004) Five R's model with changes focusing on noise and feedback.

Key Words

Agricultural communications, capstone courses, curriculum development, experiential learning

Introduction

As communicating with the public about issues related to agriculture, food, and the environment becomes more important for the agricultural industry, so does academe's ability to provide society-ready graduates who have advanced communications skills (Andelt, Barrett, & Bosshammer, 1997; Graham, 2001; Klein, 1990). Between 2011 and 2015 in the U.S. agriculture industry, the number of public relations specialists is predicted increase by 24.0%, technical writers by 18.2%, market research analysts by 28.1%, and sales managers by 14.9%. In 2010, more than 6,200 job openings were available in education, communications, and government operations related to agriculture (USDA-NIFA, 2010). In addressing this nationwide need, curriculum experts in agricultural education and

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communications have identified build[ing] a "sufficient scientific and professional workforce that addresses the challenges of the 21st Century" and developing "meaningful, engaged learning in all environments" (Doefert, 2011, p. 9) as priority areas for the discipline. With these priorities in mind, faculty members across the United States continue to develop and refine their courses that take an experiential approach to learning.

Historically, agricultural communications faculty have embraced the experiential learning approach, which is the cornerstone of the land-grant institution and agricultural education (Kerr, Davenport, Bryant, & Thompson, 1931; Kolb, 1984; Parr & Trexler, 2011). Over the past two decades, several very successful courses at institutions across the country have been developed to provide agricultural communications students with the skills they need to compete for jobs in their field (Hall, Rhoades, & Agunga, 2009; Sitton, 2001).

One experiential teaching method — the capstone course — is essential to fulfilling students' experiential learning needs in an agricultural communications program (Edgar, Edgar, & Miller, 2011; Hall, Rhoades, & Agunga, 2009; Sitton, 2001). By definition, a successful capstone course is "a planned learning experience requiring students to synthesize previously learned subject matter and to integrate new information into their knowledge base for solving simulated or real world problems" (Crunkilton, Cepica, & Fluker, 1997, as cited in Andreasen, 2004, p. 53). "As a rite of passage, this course provides an experience through which undergraduate students both look back over their undergraduate curriculum in an effort to make sense of that experience and look forward to a life by building on that experience" (Durel, 1993, p. 223). Requiring students to have real-world experiences and responsibilities like this helps the students achieve a sense of identity and step up their actions to their full potential (Collier, 2000). Such experiences help them transition into their roles as professionals and gain confidence. When students have self-belief, they are more apt to perform to their highest level and put their newfound knowledge to practice (Manz & Manz, 1991). Noting these types of benefits, Sitton (2001) recommended core curriculum in agricultural communications should include at least one capstone experience.

Andreasen's Five R's of Capstone Courses

Andreasen (2004) proposed that successful capstone courses should incorporate the Five R's — receive, relate, reflect, refine, and reconstruct. Andreason's research found each of these components to be necessary for a capstone course to be professionally beneficial. The corresponding model was called the Model for the Integration of Experiential Learning into Capstone Courses (MMIELCC), also known as the Five R's model. The Five R's "are designed to spiral and funnel the required capstone components into a synthesis and lead to an integration of the subject matter content" (Andreasen, 2004, p. 56). According to the model, students must **receive** an activity or experience that is either contrived by the instructor or has occurred spontaneously. The contrived experience is concrete in nature, allowing students to easily test their own ideas (Lewin, 1957), while the spontaneous experience may involve a less well-defined problem, which would encourage students' use of problem-solving and critical thinking skills (Ball & Knobloch, 2004). Learners must be able to **relate** their previously fragmented knowledge to the received activity or experience. Students should then be able to **reflect** upon what has been received and related in the experience for further understanding. Learners should then be able to **refine** the knowledge received and move toward a higher level of expertise. Lastly, a new knowledge base, or schema, should be **reconstructed** by the learner. Rhodes, Miller, and Edgar (2012) recommended further refinement of the Five R's model, suggesting the inclusion of the concept of noise and refinement of the concepts of feedback, communications, team-

work, critical thinking, problem solving, and decision-making (see Figure 1).

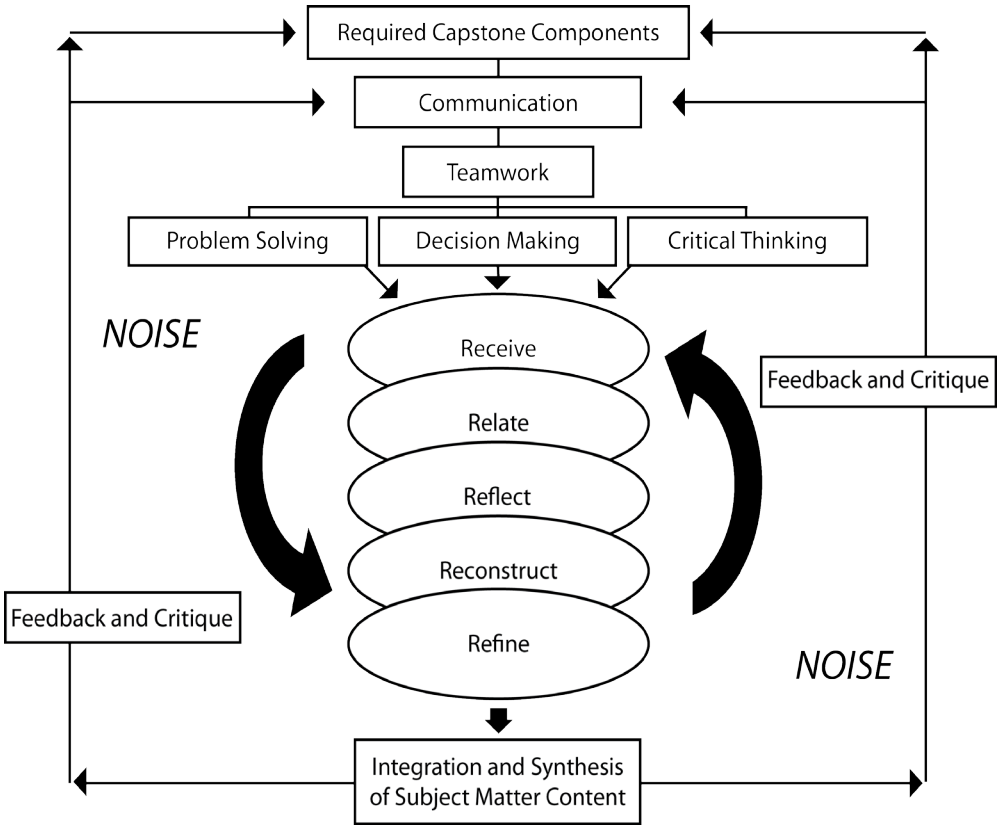

Figure 1. Rhodes, Miller, and Edgar's (2012) Modified model for integration of experimental learning into capstone courses (MMIELCC).

Teamwork, in particular, is an important skill for students in many disciplines to learn. In publication production, for example, the production process normally involves writers, editors, photographers, designers, and advertising sales representatives. For students, an understanding of resource interdependence in the group — the skills and knowledge each team member brings to the group, thereby strengthening the group's ability to complete a successful project — is key (Colbeck, Campbell, & Bjorklund, 2000).

Critical thinking and the closely related concepts of problem-solving and decision-making are also key components in Rhodes, Edgar, and Miller's (2012) model. As defined by Rudd, Baker, and Hoover (2000), critical thinking is "a reasoned, purposive, and introspective approach to solving problems" (p. 5).

Purpose of the Study and Research Question

Research on this popular approach to experiential learning might be beneficial to university-level agricultural communications faculty in at least two ways: (1) a research-based characterization of quality magazine capstone courses could guide the development of similar courses in new and developing programs; and (2) the research could guide the improvement of magazine courses that have existed for a long time — including those already known to be excellent courses. Both assertions are supported by Hall, Rhoades, and Agunga (2009). Therefore, the purpose of this study was to examine magazine capstone courses and describe students' and instructors' perceptions of the courses in an effort toward developing a prototypical magazine capstone course that will serve as a model

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for instruction. To accomplish this purpose, this research was guided by the following question:

> RQ1: Based on examination of course syllabi, field observations, and instructor interviews, what are the common characteristics of exemplary magazine capstone courses in terms of curriculum, course objectives, and instructional methods?

Methods

The methodology of this project included a descriptive, open-ended, online questionnaire and semi-structured interviews that followed the qualitative paradigm of investigation as described by Merriam (2009) and Lincoln and Guba (1985).

Subject Selection

Thirty-eight academic faculty from 25 U.S. colleges and universities with an active Agricultural Communicators of Tomorrow (ACT) student organization chapter were e-mailed in September 2011 and were asked if a magazine capstone course was offered in their curricula. As a result of this initial data collection effort, three agricultural communications programs offering an exemplary magazine capstone course were selected for further observation based on the following criteria: (1) having an active ACT chapter on campus; (2) having offered a magazine capstone course more than twenty-five semesters in a row; and (3) having received National ACT and/or other national awards associated with the course. Once the programs were identified, using the networking or "snowballing" technique described by Patton (1990), the researchers asked the magazine class instructors to identify two students who played an editorial leadership role in the course. The two students, in turn, were asked to identify two undergraduate students who had a "typical experience" in the course. In all, three faculty, one graduate student, and 12 undergraduate students were interviewed.

Data Collection and Analysis

The data collection was completed on three university campuses during the first three weeks of November 2011. The survey and questioning-route questions were developed around Andreasen's (2004) Five R's model, with the intention of framing the findings within the existing paradigm, which is well-documented in agricultural education literature. To add depth and to triangulate findings, the contents of the syllabi were analyzed as were the field notes taken by one researcher at each of the site visits. Researchers examined the data using a constant-comparative analysis as described by Wimmer and Dominick (2003), employing Nvivo 9 software to coordinate their analysis. Two coders employed open and axial coding techniques (Strauss & Corbin, 1998) on the questionnaire responses, interview transcripts, field notes, and course syllabi. Emergent themes were organized in in the form of nodes and sub-nodes (or themes and sub-themes), and a hierarchical structure of these nodes supported by excerpts from the data became the findings of this study. In this article, excerpts from the interview transcripts and questionnaire responses that typify the sentiments of the students are included to help characterize and substantiate the results.

Findings and Discussion

Overview of Exemplary Courses

The agricultural communications program at University 1 prided itself on offering its first magazine capstone course in 1921 and winning its first national award for its magazine in 1953 from "Successful Farming." Over the past 20 years, the university had offered a magazine capstone course every

semester and has won numerous awards in connection with the course. The three-credit-hour course was taught by one faculty member, who was a part-time, non-tenure-track instructor. Students in the course were required to purchase an AP Stylebook. The course was taught in a lecture-style classroom, but students also had access to a computer lab used only by magazine staff. Students holding editorial leadership positions controlled access to the lab and were responsible for setting up work times for the rest of the students to enter the lab to work on the computers.

University 2 had offered a magazine capstone course 26 times. The course was offered every semester, and the program had won numerous national awards for its magazine, which was produced by students in the capstone course. The course was taught by a tenured professor. Students in the course were required to purchase an AP Stylebook. The course met in a dedicated computer lab that was used primarily by students in the capstone course. The lab had an open layout, with computer stations around the walls and a conference table set up in the center of the room for staff meetings.

University 3 had offered a magazine capstone course more than 50 times since 1981. The program has won numerous awards for its magazine. The course was offered every semester and was taught by a tenured professor, who was assisted by a master's-level graduate assistant. Students were required to purchase an AP Stylebook and were required to own a personal laptop loaded with the latest version of the Adobe Creative Suite Design Premium software. Both lecture and lab sessions met in a computer lab, where there were 12 computers available. Though students were required to have their own laptops, upper-division students who were closest to their graduation dates had priority use of the lab computers.

Forty-five students were enrolled in the three magazine capstone courses, with a breakdown of 17 students from the course at University 1, 11 students from the course offered at University 2, and 16 students from the course at University 3. Of the students enrolled in these courses, 90.9% of the students were female and 95.5% were seniors. On average, students were previously and/or currently enrolled in 10 communications-related courses before taking the magazine capstone course. Each course had one instructor, and one of the courses had a second-year teaching assistant. All three instructors were veteran faculty members, two of whom held the academic rank of professor. The other was a part-time instructor who was a communications coordinator for an agriculture-related institute at the university.

Syllabus Characteristics

Several thematic characteristics were apparent in all three course syllabi. The fact that the characteristics were evident in all three exemplary courses is undoubtedly meaningful in a qualitative sense. The syllabi had similarities in three categories: curriculum, course objectives, and instructional methods and techniques, all of which are summarized in Table 1 (presented on next page).

Characteristics Relating Directly to the Five R's

Receive

The first question in both the surveys and the interviews related to the first of the Five R's, which is *receive*. Students reported several key course characteristics that made the course more realistic: contacting outside sources, having deadlines, and producing a university publication. Contacting outside sources to sell sponsorship space and to get interviews for stories appeared to add realism to the course. Students appeared to place a high priority on experiences in which they interacted face-to-face with the subjects they interviewed for stories as well as with businesspeople to whom they sold sponsorship spaces.

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Table 1
Characteristics of Syllabi for Exemplary Magazine Capstone Courses

Course Elements	Characteristics

Curriculum	• Publication management
	  o Leadership positions were offered to students via an application and interview process
	• Sponsorship sales
	  o All students were required to make sales
	  o All students were required to design sponsorship layouts
	• Journalistic interviewing and feature story writing
	  o Students covered a beat
	  o Students coordinated and conducted interviews with feature story subjects
	  o Students wrote one to three feature stories of varying lengths
	• Editing
	  o Students were required to edit the work of their peers
	  o Students received editorial feedback from instructors
	  o Final stories had to be perfect in terms of AP style and grammar
	• Layout and design
	  o All students were responsible for turning in at least one to three packaged feature story layouts
	• Photography
	  o Students were required to use original photography in their feature story layouts
	  o Students were required to turn in a prospective cover photo

Course Objectives	• Learn the magazine production process • Employ previously learned writing, photography, and design skills • Gain experience working as a team

Instructional Methods and Techniques	• Guest speakers
	  o Printers
	  o Graphic Designers
	  o Editors
	• Field trips and practical observations
	  o Students visited a print shop
	• Collaborative learning assignments
	  o Staff meetings were held at the beginning of classes as needed
	• Problem-based approaches
	  o Deadlines were given and enforced
	  o All decisions regarding development of the magazine were made by the students
	  o Expectations for attendance were treated like a job
	• Refresher lessons (lecture and discussion)
	  o AP Style
	  o Feature writing
	  o Layout and Design
	  o Photography
	• Sponsorship Sales

Student: *When we had to sell advertising, it was stressful working with our clients to make deadlines, but I think that is what made the whole class seem like a real job.*

Deadlines associated with tasks in the course also were perceived as a "real-world" element of these courses. Students considered having set deadlines for writing feature stories, taking photos, and designing layouts and sponsorship spaces to be realistic characteristics of the course.

Student: *The stress of meeting deadlines is comparable to what I would think the "real world" is like.*

Students in these courses were obviously proud of their magazines because these were publications that had an important public relations purpose and would be distributed to readers both on and off campus. The fact that the publications had targeted audiences and were actually distributed contributed to the real-world aspect of the course.

Student: *We take a lot of pride in this magazine just because it gets sent out to perspective student[s] and you pass it out at new student orientation. We know that it is a recruitment tool as well as it showcases the quality of work that our students produce as seniors. So, I think we all know that we need to do our best and get it done but for those reasons because it is all over campus and [the agriculture building], too.*

Student: *I would say the element that makes this course most realistic is definitely the fact that we are using real people, our own ideas, there is a finished product, and it is going out … The fact that this is going out to over 4,000 people makes me work that much harder, and it is the real deal.*

Two prominent themes that emerged from the instructor interviews were (1) the importance of the comprehensiveness of the magazine production project and (2) the importance of placing project responsibilities squarely on the students.

Instructor: *In our class, the students do everything from start of finish, and I think that is a really great piece that we can offer students. Students are responsible for every piece of the magazine. They touch a lot of different parts of it: they plan the editorial, create and sell all the adverting, and design it all.*

Relate

Next, students were asked to discuss whether or not the course allowed them to use a variety of skills that had never been used together on the same project. This question focused on the second component of Andreasen's model, *relate*. Most of the students reported putting together skills they developed previously in coursework focused on layout and design, photography and AP style.

Student: *This class brings together all aspects of agricultural communications. Editing, design, writing, interviewing, and photography are all necessary skills to have during this course. It definitely brings it all together. This is positive because it really shows you how applicable your classes throughout the past years really are.*

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Instructors for all three courses reported their students used feature writing, design, and photography skills developed in previous courses — writing being the most important of these. Across all three capstone courses, students definitely were expected to enter into the course with a strong understanding of feature writing.

> Instructor: *The most important skills for students to bring into a magazine course are good writing skills. By the time they reach the magazine course, they should already know how to write a feature story and should be working to make their writing skills stronger.*

Realizing some students may have forgotten important concepts or may not yet have picked up skills needed in the magazine course, each instructor taught refresher lessons focused on magazine production skills. These lessons included refreshers on layout and design, feature writing, AP Style, photography, and advertising sales.

Reflect

Students were asked to discuss times throughout the semester that the magazine production process became clearer. This question related to *reflect*, the third of Andreasen's Five R's. In this component, students should be able to think back on what has been learned and how the process came together. Students noted reflecting about the magazine production process at two key times during the course: after major deadlines and after the final project was put together.

In each of the courses, students were required to turn in two packaged story layouts. Students reported that during these major deadlines the magazine production process became more real to them.

> Student: *After creating layouts, I have a better understanding of how a magazine is produced and how critical it is to manage my time effectively.*

The courses were still underway at the time of the interviews and surveys, and some students felt that the magazine production process would become clear after the magazine was finally put together as a final product.

> Student: *The process of producing a magazine, I feel, comes more and more clear as the semester comes to an end. I do not think it will be fully clear until the class is completely over, because I know I have so much more to learn about the process up to this point.*

Instructors reported noticing students thinking back on what has been learned and how the magazine came together toward the end of the course or even after the course is completed. Toward the end of the course, students begin to lay out the final magazine. During this activity, the magazine process as a whole "comes alive" for students, and students are able to think back on lessons about the magazine production process that were taught in the first half of the course or that were taught in previous courses.

> Instructor: *During the first half of the semester, we lecture on everything from writing to design principles to advertising sales. The students are listening to these lectures and learning about the magazine industry as a whole. The second half of the semester is really when they take all of that*

knowledge and put it into practice. This is when the students are writing their stories, editing, creating layouts, and taking pictures, all of those sorts of things. That is when they really bring in everything together to create their spreads for the magazine. Not every story goes into the magazine and from then and there it is very competitive. The best stories are the ones that make the book, and the students that have excelled in writing, layout design, and photography really see the big picture when it is decided if they made the book or not.

One instructor reported using techniques from service-learning pedagogy, celebrating the groups' accomplishments at the end of the semester. During this celebration, students were given a hard copy of their magazine. Seeing the hard copy of the magazine allowed students to think back on the process while examining the final product.

Instructor: *We always come back and put everything together during finals week. We go out to eat as a class and celebrate the fact that we survived and finished. We reflect back on the fact that we did make it and usually I am able to give students their magazine printed back from the printers. At our celebration during finals, when that happens is really pulls everything together like "oh gosh we did this."*

Refine

Regarding the fourth of the Five R's, *refine*, students were next asked to discuss if and when they had used any of the skills developed in the course in outside projects or jobs. Students reported using skills outside of their magazine capstone course in school-related projects, outside jobs, and internships. Students reported using skills gained in the magazine capstone course for projects in other classes and for promoting clubs and events on campus. Important skills used to complete these projects included design software skills using Adobe Photoshop, Illustrator, and InDesign and writing and interview skills acquired in previous courses. Students also reported using writing, design, and layout skills in their jobs and internships.

Student: *I currently work with an ag organization as their communications intern, where I regularly use my writing and design skills. This class has really honed my skills with focus, flow, and balance in design as well as focused my writing style. The skills I use with my internship and with this class are interchangeable.*

It is also important to note that some students had not yet had the opportunity to use skills developed in their magazine capstone course, but they were still able to identify skills that were applicable to future career paths.

Student: *I hope to use the skills I have gained in this course in a future stock show magazine internship I am applying for.*

Instructors mentioned several of the graduates who had come through their magazine capstone courses now work in the magazine industry. Several of their former students had gone on to work for various commodity groups or start their own communications companies.

Instructor: *We see our students in a number of different trade publications. We also see them work*

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for a number of different commodity groups where they are taking their basic principals and sometimes creating a monthly newsletter.

Reconstruct

In the *reconstruct* portion of the Five R's model, students should develop a new way of looking at similar experiences through a new knowledge base or schema (Andreasen, 2004). Students reported perception changes related to the overall production process, the printing process, and the team aspect of publication production. Also, in some cases, students realized that they did *not* want to work for a magazine.

Students felt that their perceptions of the magazine production process as a whole would change more toward the completion of the course. Students were better able to understand the detail and planning that went into creating a magazine and realize the amount of work it took to finish the publication.

Student: *My perception of the magazine production process was changed, because I had no idea how much work actually goes into publishing a magazine. From writing stories to selling ads and creating layouts, there are so many small details that have such an impact on the publication as a whole. Learning this made me appreciate the industry and gain respect towards those who work in it, especially in the smaller publications where there is not a separate department for each section.*

Through these courses, students were better able to understand the printing process as a whole. Some students attributed reconstructing their understanding of the printing process to visits made to local printers.

Student: *I guess I didn't realize how much goes into printing … There is so much more to it …*

Student: *I think that the best way to understand producing a magazine happened when we toured the printing plant. We saw why we needed bleeds, how CMYK looks in print, and how the pages were ordered.*

Some students reported coming to the realization of the importance of teamwork in the magazine production process. These students may have entered the course with the perception that creating a magazine was a group effort, but they did not understand the importance of everyone working together and moving at the same pace. Students also realized the impact of group dynamics as problems with the magazine project were faced as a group.

Student: *I always knew it was a group effort, but this course really made me realize just how important it is that everyone is on the same page. It's really important to have a good group of people that work well together so we are all moving in the same direction. If one piece isn't as good or efficient, it just doesn't work.*

Another important impact the course had on individual students is that a few of them realized that they did not want to work for a magazine when entering the workforce.

Student: *My perceptions have changed a lot. I thought before I started the class that working for a magazine would be a good job in the future for me. After making my way though the class, I have*

learned that building a magazine is not what I want to do at all. None of my skills are worthy of being published in any magazine.

When students come into the magazine capstone course, it is the perception of instructors that students know little about the magazine production process. In these courses, students learn all the little details that go into creating a magazine and learn to appreciate the process from idea to print.

Instructor: *I do think or at least I hope the students' perceptions change, otherwise I am probably not doing my job. I don't think the students realize all the steps that go into that final product. This is not just a course in writing. We touch on all these different topics and how that all fits together to see it come off the printing press. My perception is that they don't really hear that at other places, and so I think that is how this course helps students have an appreciation for the magazine production process.*

Other Important Characteristics

In addition to Anderson's (2004) Five Rs, which are the central elements of Rhodes, Edgar, and Miller's (2012) modified model of capstone courses, several other important characteristics of successful capstone courses exist. Observations of the three exemplary courses supported that the following elements are a part of quality courses. It should be noted it is not the mere presence of these characteristics that makes a course high quality, but how the instructor integrates and deals with these elements. These elements included teamwork, critical thinking, communications, the presence of noise (potential distractions to learning), facilitator and student feedback, students feeling they had sole responsibility for the final product, instructors' high expectations of professional conduct, opportunities for students to interact with professionals, and refresher lessons.

Teamwork

Working together as a team is an extremely important skill in the magazine production process. The synergy created when students pool their resources in terms of skills and knowledge related to the project is as realistic in capstone projects as it is in real work environments. This awareness of "resource interdependence" (Colbeck, Campbell, & Bjorklund, 2000, p. 73) was evident among the capstone course students. In these three courses, students reported an acute awareness of the importance of working as a team to overcome problems, to brainstorm, and to create the magazine.

Student: *When more than one of us has difficulties, we usually come together as a team and discuss how to fix current and future problems with the production of the paper. During this time, it's obvious how much teamwork goes into the production of the process.*

Student: *We all have diverse backgrounds, but where one of us is weak one of us is strong, which helps. We have really built a team motivation.*

Critical Thinking

Students enrolled in these courses were exposed to multiple opportunities that allowed them to develop critical thinking skills through solving problems and making decisions, key components in experiential learning and capstone courses (Rhodes, Edgar, and Miller, 2012; Rudd, Baker, and Hoover, 2000).

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Student: *I have used these skills in other classes, but this is the only course that has combined writing, technical design, and problem solving into one course.*

Student: *I definitely improved my decision-making skills (to make deadlines), communication skills (to contribute to class discussions), and writing and design skills (to complete my magazine layout). Overall, this class is crucial to the professional and creative development of agricultural communications seniors.*

Communications

Communications among coworkers and outside sources is crucial to the production of a magazine. In these courses, students reported realizing the importance of communicating with outside sources and peers to pull a project together. Students were responsible for contacting leading businesspeople in their sponsorship sales efforts. They also were required to communicate clearly with their feature story subjects to arrange interviews and photo opportunities. Some also reported bridging the gap between being a student to becoming a businessperson as a result of improving their ability communicating effectively with others.

Student: *I think in most classes that we've taken in the past few years you are really just working with people inside your course and the professor. In this course, we are reaching out and working with others and interviewing outside sources. When we were selling ads, we were working with different businesses and owners; you kind of learn that deadlines are really important, but that you also have to rely on outside sources, as well. You have to make sure they understand that you are on a deadline. I know it was kind of an eye opener for all of us when we were selling ads. Communication was so important to making deadlines.*

Student: *We had to learn how to speak to people in a very professional setting and speak to them as an equal and not necessarily like a little student. I've had to be very assertive, put away the student card, and get in the mindset that I'm a businessperson in this setting.*

Noise

Throughout each of these courses, environmental noise — disruptions in the learning environment — seemed to be an unavoidable occurrence. Rhodes et al. (2012) suggested noise should be included throughout Andreasen's (2004) Five R's model and accounted for in actual instruction to overcome the disruptions. Students reported that situations that could have been disruptive did occur in the capstone courses, but rather than obstructing the learning process, the apparent distractions were often converted by the instructors into learning opportunities for students, who were able to gain valuable lessons from these experiences. For some students, experiencing these problems contributed to the realism of the course.

Student: *There are also times though when things have been communicated, and people haven't completely understood it. I think most of the times when that happens [instructor] was like 'oh this is what we need to do.' For example, we were supposed to design an original advertisement, but when we do the advertisement contracts we just have notes from what that advertiser wants. So a lot of students thought we were supposed to use the same ad from last year, but just make these changes. What [instructor] really wanted was a completely original and completely new design. Many people*

didn't quite understand that. So the first round of ads came in and there was a little bit of problem there, but I think that [instructor] gave them a couple more days to redo those ads and so that is how that one was resolved.

Facilitator and Student Feedback

Andreasen (2004) noted that facilitator and student feedback are important components of any capstone course. Feedback "should enhance the students' ability to further integrate and synthesize subject matter content" (p. 14). Rhodes et al. (2012) added that opportunities for feedback should occur throughout a good capstone course. Students placed a high value on feedback from instructors and professionals in the magazine industry; however, one student did note that feedback from peers added a sense of realism to the course, comparing it to co-workers in the workforce editing each other's work. Two of the courses required all students to peer edit, while one course only required students on the leadership staff to edit the their peers' work. Students in all three courses received feedback from facilitators and professionals in the communications industry. Some students noted feeling as if their instructors were "obvious experts" when it came to the magazine production process, which appeared to give the students confidence in their own efforts. This feedback contributed to the students' sense that they were receiving a realistic experience through the course.

Student: *Another thing is just having all of our work critiqued by professionals. The designs are critiqued both by [instructor] and also by a designer within the department, so we are getting real feedback from people that we might not get in some of our classes.*

Student: *On my last article I submitted to [the instructor], [the instructor] wrote back saying "it was really nice seeing you grow and change." So it was nice to know that [the instructor] kind of has your back. It's nice that [the instructor] notices you're getting stressed and to pat your shoulder and be like "it's OK, it's almost done. It's okay." You're like, "OK."*

While instructors clearly made an effort to provide students with feedback, they stopped short of solving problems for the students. Using problem-based learning approaches, instructors gave students the freedom to make their own decisions.

Student: *[The instructor] is very relational during class, but if I was to come to [the instructor] with a problem, I don't think [the instructor] would do anything, which can be frustrating. But, I can also see how it helps cause then you are on your own and you have to figure it out. I think [the instructor] does it on purpose.*

Students Feeling They Have Sole Responsibility for the Final Product

In the three exemplary courses examined, students reported feeling they were solely responsible for the entire publication process from initial conceptualization to printing and distribution. These responsibilities included sales, editing, design and layout, photography, and writing feature stories. This sense of project ownership allowed students to experience the process from the most realistic perspective. These kinds of concrete experiences are needed in undergraduate curriculum to allow students to test their perceptions and ideas (Lewin, 1957).

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High Standards of Professional Conduct

The students in all three exemplary courses were responsible for maintaining high standards of professional conduct — standards that were much like those in the real world. Students were expected to meet all deadlines and attend every class. In all three courses, the consequences for late assignments were severe, involving either no grade or a reduced grade for the assignment. Requiring students to have real-world responsibilities like this helps the students achieve a sense of identity and work toward their full potential as students transitioning into professionals (Collier, 2000). Capstone students' confidence levels also appeared to improve, which, according to Manz and Manz (1991), causes students to be more apt to perform to their highest level and put their newfound knowledge to practice.

Opportunities for Students to Interact with Professionals

Students were given the opportunity to meet with veteran professionals in the publication production and printing industry. Guest speakers discussed their experiences with students, and students also had the opportunity to meet with staff at local print shops, where they could see the printing process firsthand. Since most of the students had little or no exposure to the printing industry and, therefore, their schemas related to this process had not yet been set, these encounters with professionals allowed students to form accurate, concrete perceptions of the processes they were studying. This concept of establishing accurate initial schemas through experiential learning is in line with Kolb's (1984) model of the experiential learning process.

Refresher Lessons and Review

In all three courses, students revisited previously learned skills through refresher lessons. At the beginning of the semester, instructors taught lessons in feature writing, AP Style, layout and design, and photography. In the second half of the courses, students were given the opportunity to interconnect these skills with the magazine production process. Wagenaar (2000) noted that capstone courses should revisit the basics learned in all of the students' courses collectively and give students the opportunity to interconnect them.

Conclusions and Recommendations

The results of this study provide an overall depiction of the key characteristics of quality magazine capstone courses. Following the logic that faculty at other institutions offering magazine capstone courses should seek to emulate the qualities of these three exemplary courses, the characteristics lead directly to some practical recommendations for magazine capstone course instructors (see Table 2 on next page).

Recommendations for Further Research

Though capstone courses have provided agricultural communications students with the necessary skills to enter into the workforce (Edgar et al., 2011; Graham, 2001), further research is necessary to determine if and how these courses help students once they entered the workforce. Furthermore, a study is needed to expand on Manz and Manz's (1991) research on the relationship between having real-world responsibilities in magazine capstone courses and students gaining self-belief. Also, this study identified noise occurring in the capstone course environments but showed the experiential learning was actually enhanced by this noise; more research on this phenomenon is necessary, and modification to the Five R's model developed by Andreasen (2004) and further developed by Rhodes

et al. (2012) is necessary to reflect this important aspect of teaching and learning through capstone courses.

Table 2

Key Course Characteristics and Recommendations for Practice

RQ1: Based on examination of course syllabi, field observations, and instructor interviews, what are the common characteristics of exemplary magazine capstone courses in terms of curriculum, course objectives, and instructional methods?	
Findings/Observations	Conclusions/Recommendations
1. Characteristics that related R's model were helpful in making the courses more realistic and more valuable for students.	1. Course objectives should lead students toward real-world responsibilities in a setting with high expectations of professional conduct and a sense of full responsibility for the final product.
2. The courses exhibited several ways in which the experience was made as realistic as possible.	2. Faculty developing new courses and re-designing existing courses should follow this model in preparation and practice.
3. The quality of the courses was enhanced by the use of guest speakers and field trips.	3. Guest speakers should be used, and the class should tour a local print shop.
4. Refresher lessons on a variety of topics were helpful for students.	4. Students should revisit previously fragmented knowledge through refresher lessons on various basics of writing, editing, and graphic design. Also, feature writing and layout and design courses should be pre-requisites for capstone courses.
5. The final products were real, printed publications distributed and used in actual university public relations efforts.	5. The final product should be printed professionally and should be promoted and publicized, and students should be given a final copy for them to properly reconstruct their schemas as a result of seeing the project through to completion.
6. Students sometimes didn't see the "big picture" until late in the semester or even after the semester was over.	6. Instructors should create opportunities to provoke students to think about the applicability of skills developed in the course, while being patient as the students discover through their experiences.
7. Realization of the importance of teamwork was a key characteristic in all the courses.	7. Instructors should ensure students work as a team and not simply as individuals completing a few writing assignments on their own. Peer editing and using students as lead editors are recommended.
8. Students desired feedback and used it to combat uncertainty and lack of confidence in some situations in the courses.	8. Instructors should conscientiously provide students with positive reinforcements and feedback throughout the course.
9. Various types of disruptions and distractions threatened the learning environment but were often turned into learning opportunities by instructors.	9. Instructors should pay attention to problems as they arise to ensure students gain a valuable learning experience, while being flexible and seeking the opportunity to turn noise into teachable moments.

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About the Authors

Traci Rushing is marketing development manager for the Coca Cola Co. A former Extension instructional designer, she completed her master's degree at the University of Arkansas in agricultural and extension education. Dr. Jefferson Miller is a professor of agricultural communications at the University of Arkansas and has been an ACE member for 18 years. Dr. Leslie Edgar is an ACE member and an associate professor. She teaches agricultural communications at the University of Arkansas. Casandra Cox is an agricultural communications instructor at the University of Arkansas.

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Research

The Power of Words: Exploring Consumers' Perceptions of Words Commonly Associated with Agriculture

Joy N. Rumble, Jessica Holt and Tracy Irani

Abstract

Individuals interpret words differently according to the experiences that have shaped their lives. As agricultural communicators, it is important to understand how individuals perceive certain words and if these perceptions influence their attitudes toward the agricultural industry. To better understand consumers' perceptions, this study used focus group methodology to present words commonly associated with agriculture to consumer participants. Four focus groups were conducted over a period of two weeks. A total of 36 individuals participated in the focus groups. The results indicated some words activated participants' attitudes and elicited a richer discussion. Divergent attitudes and perceptions were observed in the discussion of some words, while participants perceived other words similarly. For the agricultural industry to improve communications with consumer audiences, it is important to understand consumers' existing perceptions of such commonly used descriptors.

Key Words

Framing, individual frames, focus groups, perceptions, qualitative research

Introduction

Farm worker. Organic. Locally grown. Green industry. When a consumer hears these words, what do they think of? Are their thoughts positive or negative? Would their thoughts about these words be the same as their friends or family members? Words can be linked to certain perceptions or preconceived ideas that an individual has for a specific word (Aldrich, 1980). This perception is based on the context in which the words were presented (Aldrich, 1980).

Words are the most basic of communications elements. While researchers typically study frames or themes consisting of a phrase or several words strung together, words themselves have the ability to convey meaning. Consumers are inundated with words from a variety of sources. Advertising and marketing specialists have used a number of sources to try to push ideas or messages to consumers. "The primary function of advertising is … to support the free market economy, but this is not its only role; over the years it has become more and more involved in the manipulation of social values and attitudes" (Dyer, 1982, p. 1). As communicators, it is important to understand how individuals perceive certain words and if these perceptions influence their attitudes toward the agricultural industry. An audience may not always perceive words commonly associated with agriculture exactly as the communicator intended (Stevenson, 1997). "Today's consumers have a low level of understanding

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of the agricultural production process. We often fear what we do not know" (Cannon & Irani, 2011, p. 18). Research that seeks to understand how these perceptions of the agricultural industry impact consumers' decisions and overall attitude toward the field as a whole is important for both communication researchers and practitioners. Thus, the purpose of this research was to understand consumers' perceptions of words commonly used to communicate about the agricultural industry.

Literature Review

Words often generate a visual representation within the mind. When individuals hear or see a word, they often visualize the word so it fits into a known context (Aldrich, 1980). Aldrich (1980) stated when individuals hear a word they create a pictorial representation of the word in their mind to better connect with the word and the concept it evokes. These representations of words may or may not be accurate in terms of understanding the word.

Words, within the agricultural industry, can have double meanings for consumers, based on their perceptions of the industry (Glen, 2004). These double meanings can lead to confusion among consumers and can result in distrust (Croney, 2010). Croney (2010) advises those in the agricultural industry to be transparent in messages delivered to the public to maintain trust with consumers.

In an industry commentary, Kapetanovic (2010), a marketing expert, identified the negative connotation associated with the word "sustainability." However, in a discussion of context and target audiences, Kapetanovic (2010) discussed the opportunity for the word sustainability to be used and perceived favorably. The target audience of a planned communication effort determines how a word like sustainability should be used and the resulting connotation that the audience will associate with the work (Kapetanovic, 2010). Kapetanovic (2010) identified that the word sustainability could be used strategically by the agricultural industry and presented an "opportunity for growth" in the industry (p. 44).

In a study that tested agricultural messages with consumers, Goodwin, Chiarelli, and Irani (2011) found consumers perceived six of 10 agricultural messages as unfavorable. Previous experiences, media influence, association with other industries, and lack of supporting information played a large role in the perceived favorability of the messages. Goodwin et al. (2011) observed requests for examples and explanations about the messages from the participants, indicating the perceptions required more information before forming a perception or an attitude.

When a topic is more salient, the chance of individuals seeing and digesting the information increases (Entman, 1993). Words and text can become highly salient when used repetitively, especially in the form of headlines and advertisements (Entman, 1991; Entman, 1993). Entman (1993) mentioned that if an individual already holds a belief linked to the specific word, then that individual may only need one exposure to the message before raising the level of salience for that individual. Also, the frame in which the word or phrase is presented, "determines whether most people notice and how they understand and remember a problem, as well as how they evaluate and choose to act upon it" (Entman, 1993, p. 54). Individuals create frames of reference for issues relevant to their lives. These "issue-related frames of reference can have a significant impact on perceiving, organizing, and interpreting incoming information and on drawing inferences from that information" (Scheufele, 1999, p. 107).

Goffman (1959) first introduced the idea of frames in his book, "The Presentation of Self in Everyday Life." He fleshed out the idea of individuals organizing information about the world and the surrounding society to create their personal image and identity (Goffman, 1959). To frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in

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such a way as to promote a particular problem definition, causal interpretation, more evaluation, and/or treatment recommendation for the item described (Entman, 1993).

"Because frames have to be considered schemes for both presenting and comprehending information, two concepts of framing can be specified: media frames and individual frames" (Scheufele, 1999, p. 106). Based on an individual's experience, frames can differ from one individual to the next, and those frames can affect the decision-making choices of an individual (Kahneman & Tversky, 1984). However, the way an issue is framed, based on its projected outcome, can often impact the decision of an individual.

When an individual has repeated exposure to information, framed in a specific way, that individual will digest that information within the context of that frame, and in turn, this will impact how that individual views that information within society in general, not just within that frame (Hertog & McLeod, 2001). Media frames serve to inform society about events happening around and to them on a daily basis (Gamson & Modigliani, 1989; Entman, 1991). News reporters may, consciously or unconsciously, include their thoughts about the information being presented to individuals (Gameson & Modigliani, 1989; Scheufele, 1999). The media are responsible for defining and creating the way in which the public perceives social issues and events (Tuchman, 1978). The media have the ability to, "frame issues in ways that favor a particular side without showing an explicit bias" (Tankard, 2001, p. 96).

Methods

Qualitative research, by nature, focuses on understanding the qualities of the studied materials and how those qualities come together in reality (Denzin & Lincoln, 2011). Critics of qualitative research contend no researcher can be completely objective in their observations for data collection; therefore, researchers should take measures to record objective data (Denzin & Lincoln, 2011). To ensure the robustness of the study, the researchers referred to Tong, Sainsbury, and Craig's (2007) Consolidated Criteria for Reporting Qualitative Studies (COREQ).

Focus groups are a form of qualitative research that relies on group interaction during a group interview (Morgan, 1988). Focus groups are commonly used to understand consumer opinions about information to increase communication effectiveness (Greenbaum, 1998). Group discussions allow researchers insight into group dynamics and opinions on topics presented to them (Greenbaum, 1998). Since the intent of this research was to understand consumers' perceptions of certain words used to describe the agricultural industry, focus groups were a viable option for collecting data.

An external market research firm was hired to recruit participants for the focus groups. The market research firm utilized Computer Assisted Telephone Interviewing (CATI) telephone random digit dialing (RDD) sampling to qualify potential participants. Using demographic variables, such as age, gender, education, and race, a sampling frame was established to determine representativeness among the participants. The target participants were representative consumers of the two urban locations where the focus groups were conducted. These participants were of interest because the researchers were interested in exploring general consumers' perceptions in urban populations of Florida. The market research firm was directed to recruit eight to 10 participants for each focus group as suggested by Greenbaum (1998).

As Krueger (1998) advised, a protocol was designed to stimulate conversation among the focus group participants in a clear, organized, and consistent manner. The protocol for this study examined 12 different words commonly used to describe the agricultural industry. To minimize participant fatigue during the focus groups, the words were matched into five categorized sets (see Table 1).

Table 1
Word sets tested

Set	Category	Words
1	People in agriculture	Farmer, Farm Worker
2	General agriculture	Agri-business, Agriculture
3	Animal ethics	Animal welfare, Animal rights
4	Food attributes	Family-owned, locally grown, food safety
5	Environmentally beneficial	Green industry, sustainable agriculture, organic

The protocol was consistent for each set of words. The moderator presented the first set of words, then asked participants if they had ever heard the word(s) before, where they heard the word(s), how the word(s) made them feel, and if they had positive or negative feelings about the word(s). The same questions were asked in relation to each set of words.

A panel of researchers compiled a large list of potential words for testing in this research. The final five sets of words and final protocol was determined through a pilot test with graduate students in the Department of Agricultural Education and Communication at southeastern university. The pilot test was administered via an online survey hosted by the survey software Qualtrics. Using the results from the pilot test, the researchers identified the words that would be most effective to test with the public and were able to edit the protocol to increase understanding and conciseness. The pilot test also helped to improve the methodology and the validity of the protocol (Krueger, 1998). After making the needed adjustments to the protocol from the results of the pilot test, the protocol was reviewed by a panel of researchers and professionals to ensure face and content validity.

Three different validation strategies were employed throughout the research to ensure validity, including triangulation, peer review, and recognizing and clarifying bias among researchers (Creswell, 2007). "Triangulation is the combination of two or more data sources, investigators, methodological approaches, theoretical perspectives, or analytical methods within the same study" (Thurmond, 2001, p. 253). For this study, two or more data sources were used, in that the data was collected from four focus groups in two different locations to obtain triangulation. The two different locations allowed the researchers to gather data from different types of individuals with different backgrounds and experiences (Guba & Lincoln, 1982; Guion, Diehl, & McDonald, 2009). Peer reviewing or debriefing encourages the researchers to question the analysis and place their research before a body of peers for review and questions (Creswell, 2007; Guba & Lincoln, 1982). For this research, a co-researcher questioned the lead researcher about the interpretations drawn from the data. Identifying and clarifying researcher bias provides readers with an understanding of how the analysis and interpretations may have been influenced by the researchers (Creswell, 2007; Guba & Lincoln, 1982).

Four focus groups were conducted for this research during a two-week period to help mitigate the threat of history effect (Ary, Jacobs, Razavieh, & Sorenson, 2006). Two focus groups were conducted in one location, and another two focus groups were conducted in another location, within Florida. Each focus group was approximately 90 minutes in length and directed by the same experienced

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moderator. The four focus groups had a total of 36 participants, with seven to 10 participants within each focus group. For each focus group, an assistant moderator accompanied the moderator and two note takers. Each focus group was recorded for both audio and video to be used in the transcription process. As part of the protocol for the research, the focus group participants were given clarification if needed, and all participants verified a summary of the conversation upon the conclusion of each focus group. These combined efforts of the protocol, validation strategies, and pilot test ensure the results are valid, credible, and trustworthy (Creswell, 2007; Guba & Lincoln, 1982; Krueger, 1998).

Upon the completion of all of the focus groups, the data were transcribed, then uploaded and reviewed using Weft-QDA for qualitative data analysis. Using the constant comparative method, themes were identified within the data (Glaser, 1965). Similar themes were collapsed to create overarching themes that appeared within the data. To ensure accuracy, the co-researcher reviewed and analyzed the results found by the lead researcher (Creswell, 2007).

Results

The participants in the focus groups included stay-at-home moms, educators, health professionals, manufacturing personnel, administrative personnel, and business professionals from two urban areas of Florida. A third of the participants had a bachelor's degree and most participants reported an annual household income of $60,000 - $80,000. The participants primarily represented Caucasian and African American ethnicities; 18 of the participants were female and 18 were male.

Objective 1: *To understand focus group participants' perceptions of words commonly used to communicate about the agriculture industry.*

Farmer and Farm Worker

When discussing the words *farmer* and *farm worker,* focus group participants began the discussion by indicating a *farmer* was the owner of a farm and a *farm worker* was someone employed on a farm. One participant said, "Farmer to me means the main person. The guy, the person, the man or woman who owns the actual land and the farm. And the farm workers are just those that he employs or she employs to help out."

The discussion of *farmer* and *farm worker* also included several personal stories about the participants' experiences visiting, working, or living on a farm. For example, one participant shared a story about growing up on a farm and said:

> *I just remember that my father owned all the big machinery and we would go around to all of the neighbors with threshing rigs and everybody would pitch in. He'd do everybody's [field], but it was up to me to feed all these people and all the farm workers.*

Farmer

After identifying the initial distinction between *farmer* and *farm worker,* the participants began to discuss each word separately. Farmers were discussed as also being farm workers and different than farmers seen throughout history. Although participants referred to a *farmer* as the one who owns a farm, they discussed that *farmers* could also be *farm workers*. "I think they're one and the same because if you own a farm, and you are a farmer, you would be working it as well," said one participant.

Participants discussed that today's *farmer* may look different than what they traditionally think of as a farmer. For example, a participant said:

I think we have to consider change here. What farmer and farm worker were then and now, then in the past and now is different. Because of mechanization, I think we're looking at a very different farmer now than we did in the past.

Farm worker

Participants discussed *farm worker* as being associated with migrant labor, hard work, and work for little pay. A participant discussed his or her perception of *farm worker* and said, "I was just going to say that the farm worker to me is basically like a migrant, someone who does the picking of grapes, cotton, oranges, and just subsistence existence." Another participant said, "A lot of our farm workers are migrant workers at the bigger farms." The focus group participants recognized the hard work completed by *farm workers*. One participant said, "And [farm workers] work very hard. [It's] very hard work!" Several participants also discussed the wages of farm workers. A participant said, "I always think of someone not from this country, perhaps who's working below minimum wage and having a tough time of it."

Agribusiness and Agriculture

When discussing the words *agribusiness* and *agriculture,* participants first discussed that *agriculture* was the growing and/or raising of crops and livestock, while *agribusiness* was the business side of agriculture including the finances and management. One participant discussed *agriculture* and said, "The agriculture itself, I assume, is the growing or how you grow just anything that's grown. Wouldn't that be considered agriculture?" Another participant said, "Agriculture is the crops, the animals, and whatever is involved." When discussing agribusiness two participants conversed about the business side of agriculture. The first participant said, "The business is probably the business part of agriculture like financial or…[second participant interrupts]" "Yeah, the money" added a second participant.

Agribusiness

After the initial discussion of *agribusiness* and *agriculture*, the participants began to focus on and discuss *agribusiness* further. Agribusiness was discussed as being associated with corporate farming and genetic alterations. One participant said, "Agri-business. When I think of that I think of Monsanto, Cargill, Dupont. I don't think of a farmer. I think of controlling conglomerates that are controlling our agriculture." Another participant said, "When I see agribusiness I have to admit the first thing I think of is the factory farm. You know mass production at whatever cost." The discussion of corporate farms also led participants to discuss genetic alterations. A participant said, "I think of agribusiness. I think of companies like Cargill, the big, multinational [companies] that are involved in not just food production, crop production, and also genetic development of seeds."

Animal Rights and Animal Welfare

During the discussion of *animal rights* and *animal welfare*, the participants primarily discussed the terms together. When discussing *animal rights* and *animal welfare*, the participants shared many thoughts about their perceptions of the words. However, an overall consensus of the meaning of the words was not reached. When discussing *animal welfare,* some participants discussed the safety and health of animals, while others discussed *animal welfare* as appropriate care that varied as a result of the person caring for the animals. For example, a participant said, "I mean [animal care] can be positive. I guess it depends on who's taking care of the animals, who owns them, or who is in charge." When discussing *animal rights,* some participants discussed an animal's right to exist, live well,

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be healthy, and be protected. Other participants questioned whether or not animals had rights, while other participants indicated that animals needed more rights. The discussion of *animal rights* also included discussion of laws and ordinances, issues such as fur trade and the killing of seals and animal rights activists. During this discussion one participant said:

> *Animals have a right to exist. I'm not really an animal person. I'm not really in tune with your pets or anything like that. But [animals] have a right to live well [and] have health. If you choose a pet, then I think that you should donate the time to treat it correctly.*

Another participant asked, "Do [animals] really have rights?"

The participants did come to a consensus when discussing organizations associated with *animal rights* and *animal welfare*. The American Society for the Prevention of Cruelty to Animals (ASPCA) was discussed as being associated with *animal welfare* and People for the Ethical Treatment of Animals (PETA) was discussed as being associated with *animal rights*. A participant said, "The first word that comes to my mind when I think of animal rights is PETA [general agreement from other participants]. And for animal welfare I think of the ASPCA [general agreement from other participants]."

The discussion of *animal rights* and *animal welfare* included the influence of media on the participants' perceptions of these words. One participant said:

> *There was something years ago on TV about one of the big beef and pork suppliers. And what they would do. How they would kill [cattle and hogs] and they weren't dead by this part. What they would do is they would shoot them in the head. It's like I'm not going to buy your beef.*

Sadness (as observed in the quote above) as well as other feelings and emotions were demonstrated in the discussion of *animal rights* and *animal welfare*. Unhappiness, empathy, fear, and distrust were some of the emotions and feelings that were most prevalent in the discussion. A participant demonstrated several emotions, and said:

> *It's really funny. The other day I did some grocery shopping at Wal-Mart. I guess I was feeling very sensitive that day. Anyway, I started looking at every product in a multidimensional way. I looked at the packaging and saw how unsustainable the packaging was. And then I thought about the animal and how the animal was treated, and the hormones and then I thought, 'Can I really buy this for my children?' And I'm like, well I've got to feed them something. And then by the time I got home, I just felt so unhappy with myself for contributing to all this really bad stuff. I called the local food co-op and joined. Now I can [feel happy], because they have all the animals that are treated well, free range chickens, things like that. And I can feel good about that, it costs a little bit more money, but I can sleep well at night and not go, 'OMG what am I doing? What am I feeding my kids? What am I contributing to?' I think it's really scary when you think about chickens and what's going on with our food.*

A lot of the discussion surrounding *animal rights* and *animal welfare* focused on the mistreatment and abuse of animals. Participants gave examples of what they perceived to be mistreatment, including cock fighting, dog fighting, chicken debeaking, farm animal confinement, inhumane slaughter, the use of animals for entertainment, and the captivity of animals. Some participants indicated that because of animal abuse, *animal rights* and *animal welfare* has become important. A participant dis-

cussing the mistreatment of circus animals said: "Growing up my mom used to take us to the circus. Only now do I see that [the animals] were totally mistreated."

Although the participants discussed *animal rights* and *animal welfare* as being important, several of the participants discussed situations where they would set limits on *animal rights* and *animal welfare*. These included instances of animals harming humans, spending a lot of money on pets, and being supplied with good tasting meat products. One participant said:

> *Once you start fighting and maiming people, then you lose your rights to exist. Just like prisoners. When you do a crime, you lose your freedom, you lose your right, you go to jail, so the same thing with dogs or animals that cause problems. Or even the type [of animals] that kill people, then you've lost the right to exist. You're gone. Boom. But other than that, you know the animal should live. You know, welfare, part of it.*

A common element of the focus group discussions about *animal rights* and *animal welfare* was the sharing of personal stories about animals. Some participants shared their experiences growing up on a farm with livestock, volunteering at pet shelters, being a pet owner, or having a relationship with someone that was very involved in *animal rights* or *animal welfare*. Several of these participants described themselves as "animal lovers."

Locally Grown, Family Owned, and Food Safety

The participants discussed the terms *locally grown*, *family owned*, and *food safety* separately.

Locally grown

When discussing the term *locally grown*, many participants discussed perceived attributes of local foods. Some of these attributes included safety, price, health, cleanliness, freshness, organic, and environmentally friendly. When discussing the environmental benefits of locally grown foods, a participant discussed the decreased environmental impact from shipping and said:

> *And then the environment piece comes in there because you don't have to pay for the gas or the trucker to bring it across country or fly [food] over or however [food] gets here. Transportation, because we know they're transporting here some type of way. You don't have to pay for that so you can cut down on fuel costs and stuff like that.*

Another participant discussed the likelihood that locally grown foods were organic and said: "Locally grown at least, my impression is, it may or may not be true, but generally you think [local food] is going to be a more organically [general agreement] produced food. Usually it is, I guess."

The attributes of price, safety, and health were debated among the participants. Some participants indicated locally grown foods were less expensive, safer, and healthier than non-local foods; however, other participants debated that this may not be true. For example, a participant discussed the health benefits of beef from a local grass-fed beef operation and said:

> *And they're supposed to have organic, grass-fed kosher beef, which is just as good for you as salmon. It's got as much as omega 3 oils as salmon does. It's entirely different beef than what we are used to.*

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Conversely, a participant questioned the health benefits of local food and said: "I think in advertising, a lot of times, they apply the words 'family owned' and 'locally grown' to promote the food as healthy and that's not always the case."

Family owned

Similar to the discussion of *locally grown*, the participants also discussed the attributes of the food products produced on *family owned* farms. These attributes included safety, health, quality, and organic. The participants debated whether or not *family owned* would produce a healthier and safer product.

In addition to the attributes of the products produced on family owned farms, the participants also discussed the characteristics of the family owned farms. They discussed that family owned farms were responsible, proud, old-fashioned, part of the community, complied with laws, had better environmental practices, and were respectable. A participant discussed how proud family owned farms must be of their products. This participant said:

> *And you know people who are like home growing and stuff like that, they're probably so proud of their work. They know whatever they put out, it's going to be like slammin' good. They're not going to give nothing slapped together, fake meat patties, or chicken, but that's the sort of thing that they took pride, they took time, that's part of who they are. So now when it comes out, it represents them.*

Another participant discussed that family owned farms were more likely to comply with laws and have better environmental practices. This participant said:

> *And food safety, a lot of [family owned farms] do make sure they comply with the laws. They may not use all the chemicals, but they'll use natural insects to take care of the problems that they might have. Which is better for the environment.*

Some participants discussed that good attributes and characteristics of family owned farms might not be accurate depending on the family who owns the farm. One participant discussed personal experiences with good and bad family owned farms and said:

> *I've spent some time covering farm worker issues in Immokalee and some of those commissions out there are family owned. But you sure wouldn't want to work for that family. Again, [family owned is] kind of a neutral term for me. It can be good, that wonderful Rockwell painting, family oriented farm thing, or it can be awful in near slavery like conditions.*

Another participant cautioned that family owned is not always as good as it seems. This participant said, "Family owned that's an ideal. A lot of people think with family owned the family is going to be more concerned with what they're producing. It's just not always the case." The participants also discussed skepticism around the term *family owned* and indicated that they thought some corporate farms might be titled as *family owned*. A participant said:

> *I think family owned could be used deceptively. I don't know if the Purdue company could call themselves family owned. But I have a feeling that there are some large owned corporations that could legally say that they're family owned. But that would be somewhat deceptive.*

Food safety

When discussing *food safety*, the participants initially discussed the meaning of *food safety*. The participants discussed that *food safety* was the handling and testing of food. In addition, they indicated that the Food and Drug Administration (FDA) was associated with *food safety*. A participant said: "Food safety to me means testing for the quality and the ingredients that are in there. If it's safe for human consumption."

Several participants indicated *food safety* was important, while others did not express favorable thoughts toward *food safety*. A participant discussing the importance of *food safety* said:

> *Requirement. I think you have to have food safety. You can only do so much yourself. To buy local you're still taking a risk, unless you know, you've watched the plants grow. Most of us don't have time and have never had time to [watch plants grow]. But I think we all place faith in a system that does protect us. The likelihood that any of us sitting at this table is getting sick from what we eat is relatively small. Certainly, compared to any other country in the world.*

Another participant discussed his or her dislike toward *food safety* by sharing a story about his or her preference for raw products. This participant said:

> *When I think of food safety, I think politely, I would say its malarkey. I really love raw dairy. I like real cheese. I like food that hasn't been pasteurized to the point where there are no nutrients left in it. And you can't buy raw dairy products because it's not safe. But that's where all the vitamins and nutrition is, in your raw cheese, your raw dairy, fresh stuff. But the big business can't keep it going that way so they put all these limits on the small business. There was a story the other day about this Amish farmer. They woke him up at three in the morning and raided his farm because he was selling raw dairy. And I buy raw dairy and it's funny because when you go to buy it, it's like you're buying drugs. 'Can I get some of that raw milk for my pets? 'And they're like, 'you know it's for pets only' and you're like, 'yeah, I know.' And it's like you're doing something really wrong because you just want some raw, fresh milk. So when I hear food safety, I think that it's crap, for the most part.*

Perceived issues with *food safety* were also discussed. These issues included pesticides, harmful pathogens, animal hormones, animals raised in poor conditions, and the effects of food on human health. One participant said:

> *Well, I think food safety has two levels. In the long term, which are pesticides, which will get you in 20 or 30 years. And then there are things like E. Coli and salmonella. They get you right now. So I think that's there two things going on there in food safety* [other participants agreeing].

Green Industry, Sustainable Agriculture, and Organic

The participants discussed the last set of words by focusing on one word at a time.

Green industry

The participants discussed that *green industry* was a term that could be applied outside of agriculture to things such as light bulbs and recycling. A participant said: "When you think about green industry, it's beyond agriculture and food. [Green industry] goes further than that for a lot of things like changing light bulbs."

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Additionally, the participants discussed *green industry* was a term that referred to bettering the environment and reversing damages that bad practices had caused in the past. A participant said, "Green to me is [the agricultural industry] shaping up their industry so that it's better for everything." Another participant discussed *green industry* as reversing damages and said:

> *You'd actually save the world. We've done so much damage to it already with all the chemicals and our advancement. The fact that we want to advance so fast is leading to our destruction and now it's time to go back. To start at the very beginning where everything was green* [Agreement heard].

The discussion of *green industry* also included participants sharing that the term was not favorable because of the incorrect use of the term or bad experience with green products. A participant shared the idea of green washing and said:

> *It's what people these days are calling green washing. It's when you try to make a big deal out of a little tiny thing that you do. It's ideal and hopefully everybody would like to have a green industry and be sustainable. But there are people who are taking it and just like having better light bulbs in their offices and saying they're green.*

Sustainable agriculture

When discussing *sustainable agriculture*, several participants indicated they had never heard of the term or were unsure what it meant. For example, a participant said, "I've never heard of sustainable in agriculture." Another participant was unsure about the meaning of *sustainable agriculture*, but offered a guess and said: "Sustainable agriculture, I'm not sure exactly what that is. I think it's something that just in terms of the land, the quality of the dirt, and being able to sustain growing products."

The participants who indicated they were familiar with *sustainable agriculture* offered suggestions about the term's meaning. A participant said:

> *Agriculture by its very definition is self-sustaining. You plant, you harvest, and you go back and plant and harvest, plant and harvest, you can't be more sustainable. So that's a very null term for me, or redundancy if you will. Agriculture by its nature has to be sustainable.*

Organic

Organic was discussed by the participants as having several attributes including healthy, natural, not processed, expensive, and similar to home-grown food. A participant discussed the health and expense attributes of organic food and said: "It is good quality food but it's expensive. But I did hear on the radio from that John Tesh guy, that organic is better, as far as health is concerned. But it is expensive." Another participant discussed several attributes and said: "Organic is something like home grown. It hasn't been processed with the things that [food] shouldn't be processed with, and the things that will cause [sentence trails off]. It's just more natural, more expensive, too."

In addition to discussing the attributes of organic food, the participants also discussed the overuse of the term *organic*. A participant discussed this concern and said:

> *Well, when I see organic, it's being used everywhere. Probably in a week or so, there'll be an organic Coca-Cola. They're overusing it to the point that I'm wondering who really is monitoring to make sure [food products are] really organic. I'm not sure about that.*

Conclusions/Discussion

The results of the focus groups showed that for some of the words tested, such as farmer, farm worker, agriculture, and agribusiness, participants would share their initial reactions, which elicited attitude activation and rich discussion. In addition, the results indicated that participants were unable to reach a consensus on the words animal rights and animal welfare and several of the participants were unsure of the meaning of sustainable agriculture. For words like locally grown, family owned, food safety, green industry, and organic divergent attitudes and perceptions were observed.

As reported by Goodwin et al. (2011) and observed in these results, some words may require additional information or context to aide in audience understanding of the terms. For example, words such as animal rights, animal welfare, and sustainable agriculture had limited understanding or consensus as to how they were perceived among the participants and could have benefited from additional context to provide clarity. In addition, the results showed that framing of words is important to the interpretation. Words such as farm worker and agribusiness can have positive associations, but when left to the participants' interpretations, negative associations may arise, such as associations with migrant labor and corporate farming. This finding reaffirms Kapetanovic's (2010) statement that there is an opportunity to strategically use agricultural terms to avoid negative connotations. Similarly, while locally grown, family-owned, and organic had initial positive associations, some participants questioned the positive attributes of these words as well as voiced concern about potential advertising ploys behind the words. Context may have also been beneficial to the interpretation of the term green industry, as many participants associated this term with recycling and other green initiatives outside of agriculture. This finding is consistent with Goodwin et al.'s (2011) research that showed the association of agricultural terms to other industries.

The variation in meaning and favorability of words in this study is likely due to differences in experiences, background, and exposure to communications using the words that were tested as well as different frames that participants may have developed over time (Hertog & McLeod, 2001). In addition, reactions to words such as agriculture, agribusiness, farmer, and farmer worker may have elicited more general agreement among participants because they are words the participants have likely been exposed to repeatedly throughout their lives, creating salience, and increasing cognitive digestion of the words (Entman, 1991; Entman, 1993), whereas words such as organic and green industry, for example, are newer words that participants may not have been exposed to as repeatedly throughout their lives, thus being less salient. Additionally, words such as organic and green industry, for example, may have had more than one meaning to the participants, as exhibited by some participants in the discussion, who may have been confused by the terms and, therefore, have come to distrust their use (Croney, 2010).

This study showed frames can be as small as a single word or two, and, when that is the case, providing context becomes critical to ensuring that shared understanding occurs. Researchers and communication practitioners understand the importance of testing longer format messages such as slogans, themes, and catchphrases, but the findings from this study indicate that such care and consideration should be applied to any descriptors that are going to be consistently used. For instance, in this study, participants' reactions to "green industry," a term commonly used to describe the horticulture and landscape industries, is an example of the need for added context and for testing of a frame before implementation. Although industry members use the term to describe their industry in positive terms, when used without context, participants in the study thought of associations, such as light bulbs and recycling, not agriculture. As discussed by Kapetanovic (2010) there is an opportunity for agricultural communicators to strategically use words and context so that they enhance

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favorable perceptions. Therefore, it is recommended that communicators not only understand their target audience but also provide a context to descriptors used so an audience can understand the term as intended without relying on their own interpretations, which may have been influenced by their own experiences (Kahneman & Tversky, 1984) or the media (Gamson & Modigliani, 1989; Entman, 1991). It is recommended that further research be done to test consumers' perceptions of words used to describe agriculture when paired with transparent contexts. In addition, future research should compare the strength of media influence versus industry-provided context on the interpretation of such words. By continuing to study perceptions of all communications elements, including individual words, the agricultural industry can continue to improve their communications.

About the Authors

Joy Rumble is an assistant professor in the Agricultural Education and Communication Department at the University of Florida. Jessica Holt is a doctoral student in the Agricultural Education and Communication Department at the University of Florida. Tracy Irani, Ph.D., is a professor in the Agricultural Education and Communication Department at the University of Florida and also serves as the Development Director for The Center for Public Issues Education in Agriculture and Natural Resources.

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Research

Advertising Agrarian Unreality: College Students' Preferences for Agricultural Commodity Advertising Content

Annie R. Specht and Emily B. Buck

Abstract

Critics of agricultural commodity groups claim the advertising strategies used by those groups promote unrealistic perceptions of modern agricultural practices. To answer this question, the researchers sought to investigate young consumers' preferences for realistic versus unrealistic agricultural video content. Using an online survey questionnaire, the researchers compared undergraduate students' affective responses to content from the "Happy Cows" advertising campaign to those elicited from viewing educational video content pertaining to modern dairy husbandry practices. Subjects reported similar levels of liking for both video sets, while the informational videos scored higher for realism and perceived quality of animal care. Students with less familiarity with agriculture reported greater liking for the educational content. The researchers recommend a movement away from purely entertaining advertising content for agricultural products in favor of more realistic, fact-based promotions.

Key Words

Uses and gratifications; visual imagery; schema congruity; advertising; dairy

Introduction

In 2000, the California Milk Advisory Board (CMAB) introduced American television viewers to a herd of talkative Holstein cows — and the pitch "Great cheese comes from happy cows. Happy cows come from California" — via an advertising campaign aimed at raising awareness of the state's large dairy industry (Glenn, 2004; Sherman, 2002). The award-winning campaign was a success, and by 2002, California was moving closer to Wisconsin in cheese production. The "Happy Cows" expanded into the online realm in 2008 with an *American Idol*-style contest that allowed consumers to choose the newest "spokes-cow" for the brand ("Consumers," 2008). By 2013, CMAB was inviting television viewers to "make [cows] part of your family," depicting the same chatty Holsteins as members of suburban households ("Make Us Part of Your Family," 2013).

Entertaining television commercials are vital to the success of commodity sales, but CMAB was roundly criticized for presenting an unrealistic portrayal of modern dairy husbandry to the public ("Happy Cows," 2009; Meyer, 2009). The commercial's hyper-realized settings — lush green pastures and rustic barnyards — draw upon traditional views of farming and may encourage audiences to associate animal "happiness" with restraint-free "lifestyles," though the majority of dairy cattle in the United States are raised in some type of confinement system (Von Keyserlingk et al., 2013; Goodwin & Rhoades, 2010; Rollin, 2009).

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Television advertisers do not "claim to picture reality as it is but reality as it should be" (Richins, 1991, p. 71; Schudson, 1984). Nonetheless, many scholars believe the images presented in advertising content impact the way audiences perceive the world around them (Botta, 1999; Lodish, Abraham, Livelsberger, Lubetkin, Richardson, & Stevens, 1995; Moschis & Moore, 1982). Understanding the mechanisms that construct consumers' reality and the fulfillment they derive from watching commercial advertisements should offer some insight into the effects of advertising images on consumer perceptions. The theoretical framework for this study, therefore, is built upon visual imagery, schema congruity, and uses and gratifications (U&G) theory.

Visual Imagery in Television Advertising: Stereotypes and Animal Unreality

Television advertising represents a distorted "mirror" of society that promotes the idealization of reality — an idealization incongruent with the world experienced by audiences (Scharrer, 2013; Gulas & McKeague, 2000; Hirschman & Thompson, 1997; Richins, 1991). This "constructed unreality" is rife with stereotypes that advertisers use to communicate to target audiences: Women are placed in domestic settings, such as kitchens or bathrooms, to promote housekeeping products while men drive automobiles and peddle gasoline (Kim & Lowry, 2005; O'Donnell & O'Donnell, 1978; Weimann, 2000). Researchers have demonstrated heavy television viewership tends to correlate positively with acceptance of conventional perceptions of masculinity and femininity in agreement with traditional family values among subjects of all ages (Scharrer, 2013; Kim & Lowry, 2005; Kimball, 1986; Ross, Anderson, & Wisocki, 1982; Volgy & Schwartz, 1980).

Non-human characters are not excluded from this taxonomy of stereotypes. Animals have long held great material, emotional, and symbolic value for humans, and the strong bond between man and beast is often exploited (Phillips, 1996; Spears, Mowen, & Chakraborty, 1996). Animals symbolize mankind's qualities, and they provide an "inexhaustible repository which novelists, poets, artists, dramatists, film makers, and even advertisers draw on … when they wish to evoke an immediate yet profound response" (Spears et al., 1996, p. 188; Rowland, 1973). There are more than 69 million pet owners in the United States, the majority of whom view companion animals as possessing altruistic, nurturing qualities (Lancendorfer, Atkin, & Reece, 2008).

Non-human characters are used in advertisements as "social symbols" to increase brand awareness and for good reason: Consumers are more familiar with and have more positive attitudes toward brands that utilize animal-based advertising than brands endorsed by celebrities (Aggarwal & McGill, 2007; Lancendorfer et al., 2008; Phillips, 1996; Spears et al., 1996). Animals serve two primary symbolic functions: representing valued and desired qualities, such as loyalty and strength, or demonstrating the human-animal connection and enjoying human attention (Brown, 2010; Beirão, Lencastre, & Dionísio, 2007; Lerner & Kaloff, 1989). Advertisers often portray animals as loved ones, as tools, as nuisances, or as part of nature (Lancendorfer et al., 2008).

Humanization, or the attribution of human abilities like cognitive thought, speech, and discrete emotions to animals, is another tool used by advertisers to appeal to consumers (Aggarwal & McGill, 2007; Lerner & Kaloff, 1989; Spears et al., 1996). Examples of humanized animal mascots include Borden's famous Elsie, a Jersey cow with a daisy necklace, wide smile, and nuclear family that has become a "symbol of wholesome country living and freshness" (Spears et al., 1996, p. 88). In a similar manner, the California Milk Advisory Board's (CMAB) "Happy Cows," a herd of witty talking Holsteins, represent a connection between superior products and traditional production practices (Sherman, 2002).

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Schema Congruity and the Agrarian Myth

According to researchers at the W.K. Kellogg Foundation, Americans perceive rural America as "serene and beautiful, populated by animals and livestock, and landscape covered by trees and family farms" (Kellogg, 2002, p. 1). A content analysis of television programs and large-market newspapers revealed] frames in news coverage of rural issues "linked 'rural' with an agricultural or farmstead lifestyle" and an abstract, symbol-laden "idealized past" (Kellogg, 2004, p. 25; Rhoades & Irani, 2008).

Such symbolism is inherent in agriculture-related entertainment media, as well. Reality television shows like *The Simple Life* and *Farmer Wants a Wife* reinforce stereotypes about agriculture and professionals in the food and fiber industry, yet were popular among audiences when they aired in 2003 and 2008, respectively (Ruth, Lundy, & Park, 2005, p. 28; Rogers, 2003). The producers of *The Simple Life* staged scenes to represent a desired "look" for rural Arkansas: A dairy replaced its plastic jugs with old-fashioned glass bottles, and the show's stars, Paris Hilton and Nicole Richie, were shown filling them with unpasteurized milk (Paulsen, 2003). These "reality-based" portrayals of agriculture as outdated and simple could reinforce inaccurate perceptions about the industry ("Farmers fret," 2005; Lee, Bichard, Irey, Walt, & Carlson, 2009; Ruth et al., 2005).

While agricultural stereotypes are used as a comic backdrop for reality programming, modern industry practices are often portrayed negatively in entertainment media ("TV shows," 2009). In 2009, two highly rated television dramas — Fox Network's *Bones* and CBS's *CSI: Miami* — aired episodes centered on large-scale production agriculture ("Bones," 2009; "CSI: Miami," 2009). The *Bones* episode "The Tough Man in the Tender Chicken" offered narrative criticism of confinement housing, de-beaking, animal slaughter, waste pollution, and farm worker health. *CSI: Miami*'s "Bad Seed" followed an illness outbreak caused by runoff contamination and the consumption of genetically modified corn. Both shows lead their timeslots with a combined audience of more than 20 million viewers (Gorman, 2009; Seidman, 2009).

Such portrayals of agriculture may be dangerous because they violate society's long-held beliefs about the industry and its practices (Holt & Cartmell, 2013; Fraser, 2001; Wachenheim & Rathge, 2000). Modern operations, relying on science and advanced technology, hardly resemble the pastoral images consumers associate with agriculture and rural life (Holloway, 2004; Kellogg, 2004; Fraser, 2001). These schema, or cognitive memory structures, "actively process and store information and generate expectations about future events and actions" and are used by belief systems to process, store, and organize information and produce perceptions of social reality (Allen, Dawson, & Brown, 1989, p. 83; Smith, Houston, & Childers, 1985).

Images and ideas that correspond to consumers' schema or beliefs are said to be "congruent" (Feiereisen, Broderick, & Douglas, 2009). Advertising portrayals consistent with a viewer's schema tend to elicit more positive responses than incongruent portrayals, though incongruent messages are also used to increase consumer interest (Yoon, 2012). Advertisers, therefore, capitalize on consumers' tendency to humanize products and brands by introducing spokes-characters that tap into schemas related to the products, characters, or commercial context (Aggarwal & McGill, 2007; Feiereisen et al., 2009; Orth & Holancova, 2004).

Uses & Gratifications of Television Advertising

Researchers have long sought to understand how and why audiences use media (Cantril, 1942; Herzog, 1944; Ruggiero, 2000). Uses and gratifications (U&G) theory was developed to "study the gratifications that attract and hold audiences to the kinds of media and the types of content that satisfy their social and psychological needs" and their possible influence on audience's perceptions of that

content (Ruggiero, 2000, p. 3; Cantril, 1942; Cooper & Tang, 2009). Theorists who study U&G believe audiences are aware of their needs, evaluate potential media channels and content, and choose media they believe will fulfill those needs (Joo & Sang, 2013; Nabi, Stitt, Halford, & Finnerty, 2006; Rubin, 2002; Katz, Blumler & Gurevitch, 1974).

Motivation typologies are a product of U&G research. Early television scholars identified surveillance, entertainment, personal identity, escape, and companionship as the needs fulfilled by TV consumption, while contemporary researchers have added diversion, social utility, and attitude and belief reinforcement (Kang & Atkin, 1999; Ruggiero, 2000; Weimann, Brosius, & Wober, 1992; Zaichkowsky, 1994). O'Donohue (1994) developed a television advertising uses-and-gratifications typology based on young people's "attitudes, interpretations and uses of advertising," (p. 57).This typology included marketing uses information, enjoyment, scanning the environment, and self-affirmation.

Other researchers suggest attitudes toward advertisements correlate positively with perceived levels of entertainment and are associated negatively with irritation (Parreño, Sanz-Blaz, Ruiz-Mafé, & Aldás-Manzano, 2013; Lee & Morris, 2010; Wang, Zhang, Choi, & D'Eredita, 2002; Ducoffe, 1996). Consuming advertising content for educational or informational purposes has been identified as a gratification sought by consumers with high need for cognition, such as college students (Kwak, Andras, & Zinkhan, 2009; Hallahan, 2008; Wang et al., 2002; O'Donohue, 1994).

Purpose of the Study

Idealization in advertising has plagued industry ethicists for decades (Drumwright & Murphy, 2009; Gulas & McKeague, 2000; Childs & Cater, 1954). In an era when less than 2% of the population produces food and fiber for consumers with limited knowledge of and experience in the industry (USDA, 2009; Frick, Birkenholz, Gardner, & Machtmes, 1995), it is vital that commodity groups and other organizations understand the need for realism in product advertising. By propagating the "agrarian myth," the industry has opened itself to criticism from animal-rights and consumer advocates, who argue such advertising qualifies as deceptive and untrue, thus undermining agriculture's integrity in the eyes of the buying public ("Happy Cows," 2009; Meyer, 2009; Sherman, 2002). To protect agriculture's reputation and role in society, these groups should assess the content of their marketing and advertising material and find a happy medium between entertainment and education (Meyer, 2009).

This study addresses Priority 1 of American Association for Agricultural Education's 2011-2015 National Research Agenda: public and policy-maker understanding of agriculture and natural resources. The purpose of this study is to identify preferences for agricultural video content among a specific demographic: college students enrolled in General Education Curriculum (GEC) courses at a large Midwestern public university. The objectives of the study were:

1. To describe the affective response elicited by exposure to commercial advertising content — namely, the "Happy Cows" campaign — regarding perceived quality of dairy husbandry, likability, and realism; and
2. To compare participants' affective responses to the television campaign to those generated by images associated with modern dairy husbandry practices.

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Methods

Subjects

The researchers sought a target demographic familiar with the "Happy Cows" campaign. Because undergraduate students between the ages of 18 and 30 watch an average of 2.5 hours of television per day and utilize television as a source of education and entertainment, they offered an ideal level of familiarity for the purposes of the study (Loechner, 2009; Student Affairs Administrators in Higher Education [NASPA], 2008). Participants self-selected into the study and were recruited from a population of students enrolled in three introductory GEC courses: Introductory Biology, Introductory Chemistry, and Contemporary Issues in American Agriculture, a GEC writing course.

The goal of subject sampling was to develop a pool of varied ethnic and socioeconomic backgrounds. The campus from which the sample was collected reported a 14.4% minority student enrollment in 2009, and 19% of the 2008 freshman class were first-generation college students ("Ohio State," 2008; Kloeppel & Feder, 2009; "Statistical summary," 2009). Additionally, drawing a student sample from GEC courses allowed for a wide variety of academic majors, as those courses constitute the core curriculum required of all university students.

Instrument

The instrument selected for this study was an online questionnaire deployed through survey engine SurveyMonkey.com. The researchers used the questionnaire to gather demographic information, including age, gender, description of hometown (urban, suburban, rural), and academic area of interest. Subjects described their television consumption in hours watched per day. Participants also described their uses and gratifications for television viewership by responding to eight items regarding the "surveillance" and "entertainment" gratifications on a five-point Likert-type scale (see Table 1), with 1 indicating strong disagreement and 5 indicating strong agreement (Kang et al., 1999).

Table 1

Sample questionnaire items for television uses and gratifications

Use	Questionnaire Item
Surveillance	"I watch television…"
	…to learn more about the world around me.
	…because it shows me what society is like nowadays.
Entertainment	"I watch television…"
	…because it is enjoyable.
	…because it is amusing.

The questionnaire also was used to assess specific uses and gratifications related to television advertising consumption. Four of O'Donohue's (1993) advertising uses were selected as foci for the study: marketing uses information, surveillance, enjoyment, and self-affirmation (see Table 2).

Table 2

Sample questionnaire items for advertising uses and gratifications

Use	Questionnaire Item
Marketing uses information	"I pay attention to commercials…"
	…to learn about products and services.
	…to keep up with new trends and styles.
Surveillance	"I pay attention to commercials…"
	…to live vicariously through other people's shopping habits.
	…to understand what is fashionable or preferred.
Enjoyment	"I pay attention to commercials…"
	…because they are entertaining.
	…because they tell a story I am interested in.
Self-affirmation	"I pay attention to commercials…"
	…to reinforce my beliefs about the world.
	…because they resonate with my own situation in life.

During the survey, participants were asked to view five video clips linked to the questionnaire from video-sharing website YouTube. The first set of clips consisted of two videos from the "Happy Cows" campaign ("Alarm Clock" and "April") that presented images related to dairy housing. Subjects were then shown a clip featuring housing in the context of a tour of a large modern dairy farm. The third video shown was "Jenn," a "Happy Cows" commercial depicting natural calf-rearing, which was followed by a second farm-tour video explaining how calves are raised on a large-scale dairy. (Both videos of the dairy farm tour were intended for educational purposes.) For each video, subjects were asked to explain their initial reactions to the clips. Subjects then responded to statements on a seven-point semantic differential scale to rate the commercials as closer to one or the other of two bipolar adjectives. Participants judged the commercials on three dimensions:

1. Realism, or the congruence between what is presented in the video and the subject's preconceptions of agricultural reality;
2. Likability, or the subject's affective response to the commercials' content; and
3. Quality of perceived animal treatment, or the nature of how animals are fed, housed, and tended.

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Data Analysis

To test validity, the questionnaire was pilot-tested in a GEC writing course with 47 students. Over one week, the questionnaire was e-mailed to students three times, resulting in 20 viable responses or a response rate of 44.68%. Cronbach's alpha (α) was calculated as a statistical measure of reliability. Items measuring *surveillance* (α = .707) and *entertainment* (α = .975) as impetus for television consumption fared well on the reliability test. Scales measuring uses for viewing television advertising included *marketing uses* (α = .893), *surveillance* (α = .726), *enjoyment* (α = .69), and *self-affirmation* (α = .89). The three scales for video *likability*, *realism,* and *perceived quality of animal care* were also given a Cronbach alpha score. The Cronbach alpha for the *liking* scale was determined to be α = .846. The *realism* scale scored α = .459 overall; the removal of one item raised this score to α = .549. The scale for perceived *quality of animal care* received a Cronbach alpha score of α = .912.

The general survey was conducted in two sessions: One round of surveys was sent to an introductory biology class of 604 undergraduate students during the last two weeks of the spring academic session. The second round of surveys was sent to an introductory chemistry class with an enrollment of 107 students during the first two weeks of the summer session. These efforts resulted in 56 valid responses. The low response rate necessitated the inclusion of pilot-test data: Because no significant demographic differences were found between pilot-test respondents and general survey respondents, the responses to the pilot test were incorporated to the general survey for a total of 78 responses and a response rate of 9.72%.

Low response rates are increasingly typical of surveys of college students, especially for email- or Web-based surveys: In a 2003 study, Sax, Gilmartin, and Bryant found only 17.1% of college-aged survey takers responded to a Web-only questionnaire with an incentive for completion. Falling response rates for student surveys have increased the number of studies reporting rates of less than 40% (Dey, 1997). To counter the high non-response rate, the researchers compared demographic data gathered from the sample to the same characteristics of the target population — undergraduate college students — to determine if the resulting data were indeed generalizable. According to Miller and Smith (1983), this method of dealing with low response rates allows researchers to generalize from a small sample to a larger population if the characteristics of the sample are typical of the target population.

Results

Of the 78 respondents, 57 reported their gender. Males constituted 45.6% of the sample (f = 26), and 54.4% of respondents (f = 31) were females. Respondent ages ranged from 18 to 41 years, with a mean age of 21.4 years and a mode of 20 years (f = 16). The majority of respondents (91.2%; f = 52) were under 24. Participants' hometowns were largely suburban (61.4%, f = 35), with rural-farming (19.3%, f = 11), rural-non-farming (10.5%, f = 6), and urban (8.8%, f = 5) trailing behind. The majority (82.2%, f = 60) of respondents who indicated their television viewing habits reported watching between 1-4 hours of programming per day.

Though the sample size was small, it was representative of the general population of undergraduate students at the university: The gender breakdown (45.6% male to 54.4% female students) skewed only slightly from the university population (51.9% male to 48.1% female students) ("Statistical summary," 2009). The sample also represented 13 colleges and the university's exploration program. Most prevalent among those were social and behavioral sciences, which include psychology, sociology, communication, political science, and the business college, while eight respondents were enrolled in a major related to food, agricultural, and environmental sciences. Responses to class rank

were fairly evenly distributed among the four categories: Of the 56 subjects who indicated their rank, 11 were freshmen (Rank 1), 18 were sophomores (Rank 2), 13 were juniors (Rank 3), and 14 were seniors (Rank 4).

Subjects were asked to respond to four Likert-type items, on a scale of 1 to 5, to gauge their use of television for *surveillance* and *entertainment*, the two primary uses. The mean scores for those items were collapsed into composite means for each use. Respondents were slightly more likely to watch television for *entertainment* than *surveillance* (see Table 3).

Table 3

Descriptive statistics for uses of television viewership

	N	Minimum	Maximum	Mean	*SD*
Surveillance	71	1.00	4.75	2.77	.96
Entertainment	73	1.00	5.00	3.84	1.09

To assess subjects' uses of television advertising, similar methods were used for *marketing uses* (six items) and *surveillance, entertainment*, and *self-affirmation* (three items each). Based on those scales, respondents use advertising for *entertainment* more than *marketing uses*, *surveillance*, and *self-affirmation* (see Table 4).

Table 4

Descriptive statistics for uses of advertising viewership

	N	Minimum	Maximum	Mean	*SD*
Marketing	69	.67	4.67	2.52	.86
Surveillance	70	.00	5.00	2.50	.90
Entertainment	68	1.00	5.00	3.13	1.04
Self-affirmation	69	1.00	4.67	2.33	1.01

Affective Responses Elicited by Exposure to the "Happy Cows" Campaign

The "Happy Cows" videos received an average *liking* score of 3.12, an average *realism* score of 3.49, and an average *quality of care* score of 3.61. A moderate positive correlation was found between

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hometown types (higher scores indicated less rural hometowns) and liking for the farm-tour videos (r = .404, P = .004). Viewers' initial reactions to the video echo the sentiment displayed in the statistics. Responding to the "Happy Cows" videos, subjects commented on the videos' entertainment value and eschewed the realism of their content. One participant wrote: "They were pretty cute commercials. If I were watching this on tv [sic] I'd probably remember those because of their humor. I was more focused on the humor and the animals though and nearly forgot it was [a] commercial for cheese or milk products." Another said that the commercials "are creative and I [sic] love the personification of the cows."

One respondent commented: "These clips are funny and amusing however they depict a false vision of the dairy industry. Many cows are not raised in old wooden barns today and I believe that the public should know this and why animals are raised this way." More negative reactions included statements like "I am a vegetarian and loathe the commercial exploitation of animals" and "Cows cannot actually talk, so it is not a factual advertisement." After watching the first farm-tour video, one respondent stated that "its [sic] harder to think that [the third commercial] is funny after knowing the truth about the cows."

Affective Responses Elicited by Exposure to Farm Tour Videos

The farm tour videos scored 3.40 for *liking*, 4.51 for *realism*, and 3.87 for *quality of care*. A paired-samples t test for each variable indicated that though the difference between the video sets' *liking* scores was not statistically significant ($t(47)$ = -1.76, P = 0.085), the farm tour videos' mean scores for *realism* and *quality of care* were significantly higher ($t(47)$ = -8.66, P = 0.001and t(43) = -2.99, P = .005) than those for the television commercials. In their open-ended responses, subjects praised the videos' "accurate and honest" depiction of dairying. Others called the videos "informative" and "realistic." One respondent commented, "I would buy products from this company … Room for cows to lay down and the cows looked healthy. I liked this clip way better." Similar comments included "it was good to see that animals were being treat[ed] humanely and were healthy" and "it is clear that they really do take care of these cows and treat them really well."

Other respondents, however, noted the free-stall housing and calf hutches seemed "crowded" and "unnatural" and doubted the humane treatment portrayed, especially the "smaaaaallll [sic] cages." One stated, "I may have liked to see the cows outside the barn grazing." Another wrote, "It was depressing to see them all being fed that dusty grain and being so pressed together." One referred to the videos as "fake," and another said: "I now know how calves are cared for. I also kind of feel bad for them."

Discussion

Television and Advertising Uses and Gratifications

The results of this study strengthen the notion that young people consume television content and television advertising for entertainment purposes. Entertainment received the highest mean scores for both television viewership (M = 3.84) and advertising uses (M = 3.13). However, young people still watch televised programming for educational or informational purposes. The results of this survey reveal that media content aimed at informing audiences — versus selling a product — was as entertaining to participants as the advertisements featuring humanized dairy cattle (($t(47)$ = -1.76, P = 0.085). Those participants from less rural backgrounds actually found greater enjoyment watching the informative farm-tour videos than those subjects with more regional familiarity with agriculture and dairy farming, as indicated by a moderate positive correlation between *hometown* and

liking for the more realistic video content (r = .404, P = .004). This finding supports Kaufman, Israel, and Irani's (2008) conclusion that consumers from regions with less agricultural activity perceive the industry in a more positive manner than those from agriculture-intensive areas.

Responses to the "Happy Cows" and Farm-Tour Videos

Subjects analyzed both the television commercials and videos of the dairy farm tour on a seven-point adjective scale for *liking*, *realism*, and *quality of animal care*. The "Happy Cows" videos received moderate mean scores for all three qualities, ranging from 3.12 for *liking*, 3.49 for *realism*, and 3.61 for *quality of care*. The videos footage of a large modern dairy farm received mean scores of 3.40 for *liking*, 4.51 for *realism* (the highest score across all variables), and 3.87 for *quality of care*. The tour videos' scores for *realism* and *quality of care* were statistically higher than those for the "Happy Cows" videos.

The open-ended responses from participants compound the results of the survey items. Subjects indicated the videos they deemed "more realistic" — the farm-tour videos — represented a more accurate portrayal of dairy husbandry than the commercials. Survey-takers were able to differentiate between modern and antiquated dairy husbandry practices, and they even preferred the modern methods of housing and calf care to the "freer" and "more natural" methods presented in the commercials. However, images of modern husbandry practices remained incongruent with several respondents' beliefs about humane animal treatment, indicating today's methods continue to be at odds with traditional images of animal production.

Implications for Dairy Commodity Marketers and Advertisers

The results of this study support movement away from unrealistic, purely entertaining commercial content in favor of more informational, reality-based television advertisements. The college students surveyed indicated they enjoyed watching videos featuring real footage of dairy farming as much as they enjoyed the humorous commercials featuring talking cattle. In fact, those students less familiar with agriculture reported greater liking for the more educational content. The researchers believe educating the public about current trends in animal husbandry while marketing products is a more responsible way to promote both the commodity and its producers.

Socially responsible marketing practices are now being utilized by dairy marketing organizations, including the creators of the "Happy Cows" campaign. In 2010, CMAB debuted a new series of television advertisements based on the Real California Dairy Families documentary series. According to Vice President of Advertising Michael Freeman, the commercials "[dispel] the myth that California farms are run by cold, uncaring 'corporations'" and allow farmers to debunk myths surrounding the dairy industry (Giambroni, 2009, para. 4). Other states also are making this move. The American Dairy Association Mid-East (ADA) organized a regional campaign in 2009 to promote Ohio dairy farmers and provide resources to consumers. ADA's advertisements feature interviews with producers and information on cow-care practices, including hoof trimming and dehorning ("Campaign gives," 2010).

Implications for Future Research

Two primary limitations of the study should be corrected in future investigations: survey response rate and generalizability. To increase response rates in future studies of undergraduate students, researchers should take care when timing the distribution of an instrument: End-of-term responsibili-

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ties, such as papers and final examinations, may reduce the likelihood of response. The response rate for the third survey round, which was sent at the beginning of the summer academic session, was 20.56%, compared to 7.28% for the survey when distributed at the end of the spring term. Utilizing university registrar records to contact potential participants directly would eliminate the need for an intermediary contact person, in this case, a class instructor.

The study's generalizability constitutes another limitation. To encourage responses across backgrounds and majors, respondents were pooled from introductory GEC courses, which fulfill graduation requirements across a wide array of academic programs. This population selection, while providing greater breadth across a secondary institution, limits the generalizability of the study to undergraduate students aged 18-24. Adult consumers would provide an ideal population for investigation by broadening the pool of potential respondents and allowing researchers to describe the impact of advertising content on consumers who make food-purchasing decisions for themselves and their families.

Though limited in scope to undergraduate students, the results of this study shed light on the advertising-content preferences of an important group of future consumers. In 2009, more than 70 percent of American high school graduates were enrolled in colleges and universities, the latest high point in an upward trend among young people ages 16-24 (Bureau of Labor Statistics [BLS], 2010a). These students also comprise an important part of the nation's consumer market: More than half of undergraduates contributed to the labor force in 2009, and college graduates experience better employment opportunities, higher earnings, and more discretionary spending than non-graduates (BLS, 2010b; Roberts & Jones, 2001). Appealing to an educated consumer demographic could be beneficial to organizations seeking to improve both their bottom line and the public image of their commodities.

About the Authors

Dr. Annie R. Specht is an assistant professor of agricultural journalism in the University of Nebraska-Lincoln's Department of Agricultural Leadership, Education, and Communication. Emily B. Buck is an associate professor of agricultural communication in Ohio State University's Department of Human and Community Resource Development.

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Research

The Challenge of Exemplification in Crisis Communication

Deborah D. Sellnow and Timothy L. Sellnow

Abstract

This case study characterizes the crisis communication challenges and potential response strategies of organizations facing crises of perception created by media exemplars. Exemplars are created through repeated news stories made memorable by highly vivid language, shocking visual materials, and evocative personal testimonies. ABC's portrayal of Lean Finely Textured Beef as "pink slime" is provided as a case for analysis. The study concludes that organizations responding to crises of perception are at an extreme disadvantage when their standard operating procedures are portrayed negatively as exemplars. In addition, stigmatization increases an organization's susceptibility to exemplars. Finally, appeals to neutral parties have the potential to bring some degree of added credibility to organizations responding to crises of perceptions caused by exemplars.

Key Words

Food safety, risk communication, crisis communication, news framing

Introduction

At their most fundamental level, organizational crises are rooted in public perception. Although some organizational crises create clearly visible harm, others emerge solely from a loss of public confidence. For example, a food product tainted by such microbial contaminants as *Salomonella* or E. coli O57: H7 manifests in a clear pattern of illnesses for which the responsible organization is held accountable. Conversely, other crises emerge due to what Coombs (2009) identifies as "rhetorical problems" creating a "gap in agreement" between the organization and its consumers and stakeholders (p. 238). In other words, organizations can face a crisis of public perception. Even when organizations believe the accusations or public concern causing the agreement gap is not warranted, they still must communicate in response to the loss in public confidence.

Gaps in agreement leading to crises based on public perception often result from the way an issue is framed in the media. As Hook and Pu (2006) explain, "reporters and editors routinely choose among various approaches to the presentation of news stories" (p. 169). These choices result in patterns of coverage that can alter the public's perception of risk and decision-making about those risks (Hallahan, 2005). If a product is framed negatively, a gap in agreement about the safety of the product develops between the organization and consumers (Slovic, 2000). In fact, "nuclear and chemical

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technologies (except for medicines) have been stigmatized by being perceived as entailing unnaturally greater risks" (Slovic, 2000, p. 390). A crisis occurs when the gap is wide enough to threaten the organization's survival. The objective of organizations facing such crises of perception is to reframe the issue in a more favorable light.

We argue that reframing an issue is particularly challenging when the issue is initially framed by an exemplar (Zillmann, 2006). Exemplars are created through repeated news stories made memorable by presenting an issue using highly vivid language, shocking visual materials, and evocative personal testimonies (Aust & Zillmann, 1996). Such exemplars sway public opinion about risk issues and pose severe crisis communication challenges for organizations. Thus, the objective of this case study is to characterize the crisis communication challenges and potential response strategies of organizations facing crises of perception stemming from the media's presentation of an exemplar. To do so, we first provide an overview of exemplification theory. As a means of pursuing our research objective, we next apply exemplification theory to the controversy surrounding the portrayal by ABC News of Lean Finely Textured Beef (LFTB), produced by Beef Products, Incorporated (BPI), as "pink slime." Specifically, we summarize how the ABC News accusations manifested in an exemplar and then analyze the BPI response to ascertain the crisis communication challenges the company faced. We selected this case because, although no negative health effects were documented, the news coverage using the phrase pink slime created a public outcry that has devastated the LFTB industry (Schultz, 2012). We conclude our analysis with implications and conclusions about the crisis communication challenges and opportunities in crises of perception based on exemplary news coverage.

Exemplification Theory

Exemplification theory "focuses on assessments of risks to safety and health, as well as on contingent apprehensions that motivate risk avoidance and related protective behavior" (Zillmann, 2006, p. S221). Exemplification theory posits that perceptions of such risks are altered through exposure to exemplars. Exemplars are "elementary occurrences that can be expressed in simple propositional form, mostly as attributional or causal relationships" (Zillmann, 2006, p. S224). Exemplars are made memorable by their "visually vivid and emotionally strong" content (Aust & Zillmann, 1996, p. 788). Thus, pictures or "any combination of image and text" can serve as exemplars (Zillmann, 2006, p. S224). Exemplars increase in influence about risk issues when they are seen recently and frequently. Of these two variables, frequency is most influential because repeated viewing "of exemplification fosters an enduring influence on the perception of phenomena and issues" (Zillmann, 2006, p. S223).

Zillmann (2006) explains that the "influence on judgment" caused by exemplars "resides in the information they convey and, along with it, in the affective reactivity the information elicits" (p. S224). In other words, exemplars foster strong emotional responses that ultimately influence risk perception and behavior. Zillmann contends that, "in the assessment of health risks, for example, exemplars associated with affective reactivity will receive disproportional attention and thereby render overestimates of the incidence and magnitude of threats to health" (Zillmann, 2006, p. S224). By their nature, the messages embodied by exemplars "place few demands on processing and consequently should avail themselves from memory more readily than the specifics of abstractions" (Zillmann, 2006, p. S225). Thus, exemplars communicate stark messages that are both memorable and easily processed.

Aust and Zillmann (1996) observe that, when choosing exemplar testimonials in news stories, television reporters tend "to favor those that are dramatic, vivid, and possibly shocking" (p. 788). Emphasizing extreme or atypical exemplars in television coverage can "result in unwarranted, erroneous generalizations" causing inaccurate "knowledge and understanding" by viewers (p. 788). As a

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result, viewers tend to overestimate risks, causing increased and unwarranted feelings of fear or threat (Westerman, Spence, & Lackland, 2009), potentially initiating crises based on audience perception. For example, those viewing stories about food poisoning from fast-food restaurants that included exemplars featuring emotional victim testimony perceived a significantly greater risk of contracting food poisoning than those who viewed a less emotional explanation (Aust & Zillmann, 1996).

The clear evidence that featuring exemplars in television news can create crises of perception is cause for meaningful reflection on how journalists use exemplars and how responsible parties respond to stories featuring exemplars. Exemplars can and have been used effectively to draw attention to highly probable health risks that are not widely recognized by the general public (Zillmann, 2006). Conversely, featuring exemplars in news coverage can notably distort the public's perception of risk. To avoid such distortion, Zillmann, Gibson, Sundar, and Perkins (1996) provide two practical recommendations, one for journalists and one for those responding to the stories featuring exemplars:

> First, news writers must be made aware of the implications of exemplification, especially of those concerning selective, distorting exemplification. Cognizance of glaringly inappropriate exemplification should correct the practice of highly selective exemplification to some degree. Second, news writers must be appraised of the fact that pallid general information is likely to fail as a corrective for distorting exemplification. Efforts must be directed at presenting much needed base-rate information more compellingly than is commonly done. (Zillmann, Gibson, Sundar, & Perkins, 1996, p. 441)

Failing to recognize the potential for exemplars to influence public perception of risk is problematic for all parties. From the perspective of producers, exemplars have the potential to create a crisis by devastating sales due to misguided perceptions of a product's risk. From the standpoint of consumers, exemplars can move the public's attention away from risks with high probability and toward risks where the actual likelihood of harm is low.

Method

This analysis employs a case study method to provide, in rich detail, a description of how ABC's depiction of LFTB as "pink slime" created a vivid exemplar that devastated the LFTB industry. The case study method is particularly appropriate for the analysis of organizational crises because it "allows investigators to retain the holistic and meaningful characteristics of real-life events" (Yin, 2003, p. 2). In addition to reviewing the ABC News story that triggered the crisis, we focused our analysis on BPI's crisis response. Specifically, we analyze BPI's website entitled, "The Facts of Lean Finely Textured Beef" (initially available at http://www.beefisbeef.com/faq-3/). This website was accessible during the first six months of the controversy when media coverage was highest. We chose to analyze this website because it made BPI's approximately 1,500-word crisis response readily available to a broad public audience. A truncated version of this website (http://beefisbeef.com/lftb-faq) was still accessible as of December 2013.

The Case: ABC News Portrayal of "Pink Slime" as an Exemplar

The phrase "pink slime" was first introduced to a national audience in an ABC News investigative report that aired on March 7, 2012. Diane Sawyer, anchor of the news program, introduced the story as a "startling ABC News investigation" reported by Jim Avila. Avila narrates the story saying that a "whistleblower has come forward" to reveal that most ground beef is "padded with a filler" he calls

"pink slime." The story features two former USDA scientists turned whistleblowers, Gerald Zirnstein and Carl Custer.

Avila narrates over video footage intermixing unsavory cuts of meat in processing plants with workers packaging fresh ground beef in grocery stores. Avila states:

> *70% of the ground beef we buy at the supermarket contains something he calls pink slime, beef trimmings that were once used only in pet food and cooking oil, now sprayed with ammonia to make them safe to eat and then added to most ground beef as a cheaper filler.*

In the story, Zirnstein refers to this process as "economic fraud," and both Zirnstein and Custer are said to have warned USDA officials not to approve LFTB for human consumption.

The story then shifts to an animated video providing a succinct summary of how LFTB is produced. Animated graphics demonstrate how the beef trimmings are heated, spun to remove fat, sprayed with ammonia gas to kill bacteria, pressed into bricks, frozen, "for shipment to meat packers and grocery stores where it is added to most ground beef." Avila also emphasized that LFTB "doesn't have to appear on the label because, over objections from its own scientists, USDA officials with links to the beef industry labeled pink slime meat."

The story ends by revealing a potentially unethical relationship between former USDA undersecretary JoAnn Smith, who is said to have made the decision to consider LFTB as beef, and one of the suppliers to the main distributor of LFTB, Beef Products, Inc. Carl Custer is quoted as saying "The undersecretary said it's pink, therefore it's meat."

Avila then describes Smith's decision as "a call that led to hundreds of millions of dollars for Beef Products, Inc." The reporter reveals further that, "when Smith stepped down from the USDA, BPI's principal supplier appointed her to the board of directors where she made at least $1.2 million over 17 years." He concludes the story by saying, "BPI says it had nothing to do with her appointment and the USDA says, while legal then, under current ethics rules she could not immediately have joined that board." When the camera returns to Diane Sawyer, she ends the segment by saying, "And we know this raises so many questions. Jim Avila is going to stay on this case."

The story launched a wave of media coverage featuring the unprecedented phrase *pink slime*. The story inspired a surge of similar stories on multiple networks. The term was repeated frequently over several weeks and was accompanied by visual images of unappetizing meat scraps. Figure 1 shows a sudden peak in frequency of the term *pink slime* in television news coverage.

Figure 2 shows the coverage spanned beyond ABC to include most major news networks. The sudden frequency and prolonged coverage featuring the shocking and repulsive phrase *pink slime* accompanied by distressing visual representation of the product and production process clearly reflects the criteria Aust and Zillmann (1996) establish for an exemplar. The "vivid and emotionally strong" content along with the selective use of testimonials from the two USDA scientists provide a simplified explanation of the complex issues of food safety and meat processing (Aust and Zillmann, 1996). In short, ABC's story initiated the exemplar that drew considerable attention to LFTB, a product that was not widely recognized by the general public (Zillmann, 2006).

As Zillmann (2006) explains, exemplars have the potential to create "disproportional attention and thereby render overestimates of the incidence and magnitude of threats to health" (Zillmann, 2006, p. 224). Although no health hazard had been established related to LFTB, the vividly disgusting portrayal of the product by ABC and subsequent reports preceded a drastic drop in demand for ground beef, including LFTB. In a Congressional Report published on April 6, 2012, one month

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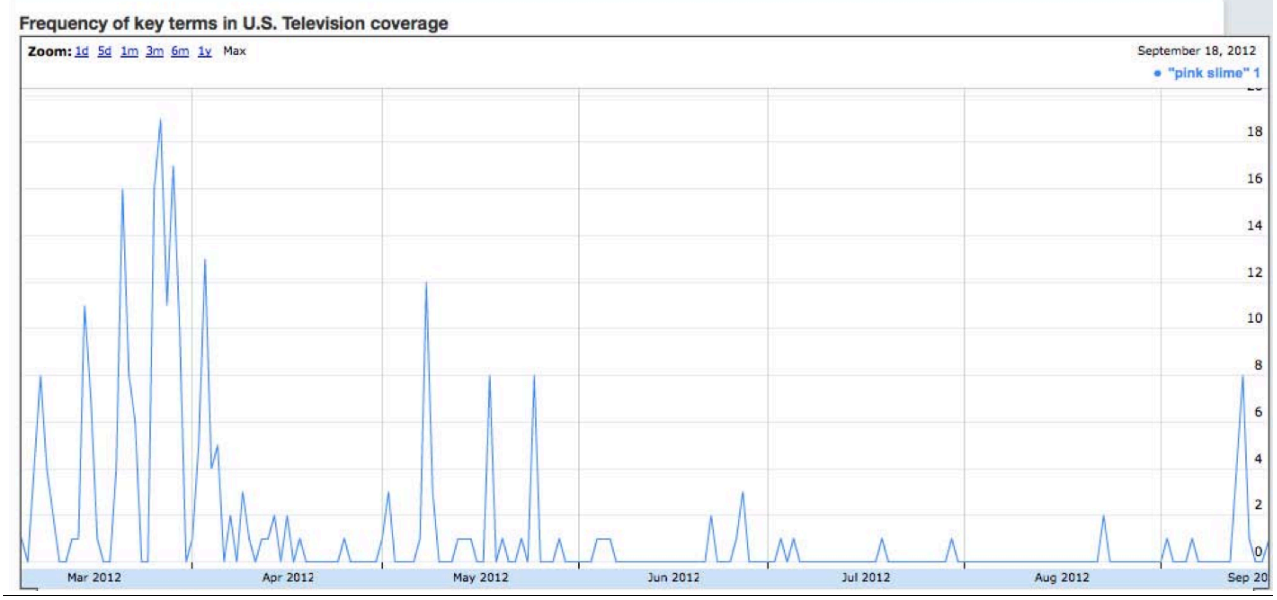
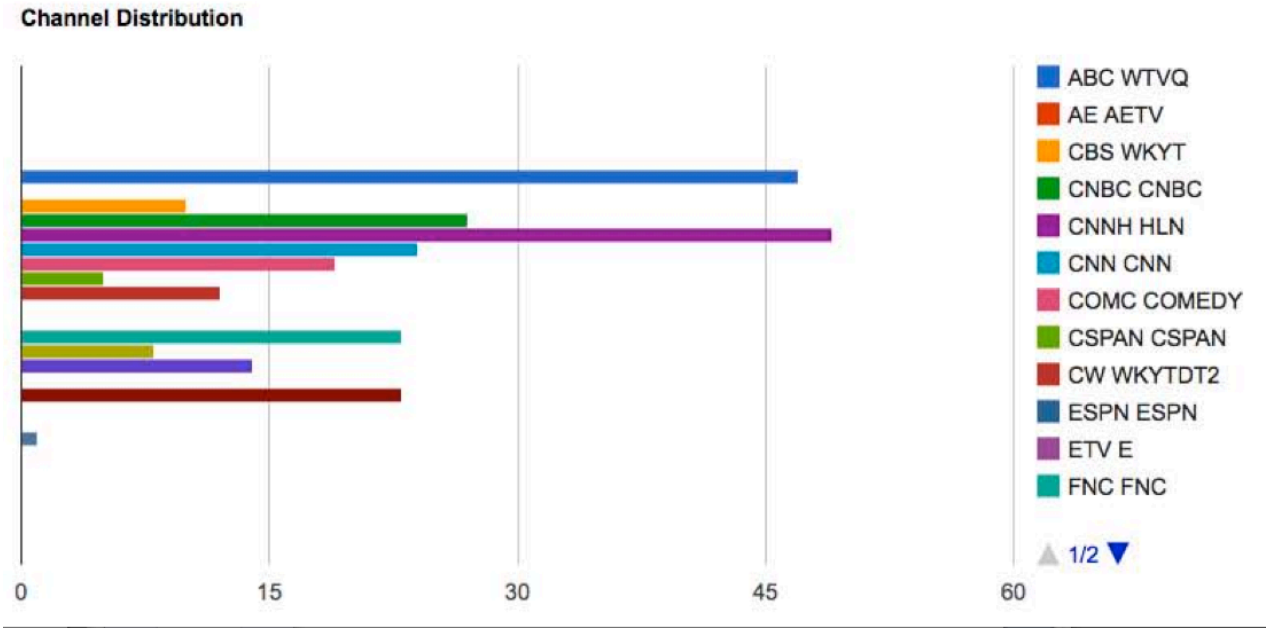


Calculations include 24 all stories broadcast on CNN, CNNH, CSPAN, CW, CBS, Fox, FNC, NBC, ABC, PBS, and MSNBC for the months of March 7-September 15, 2012.

Figure 1. Frequency of Television Reports Including the Phrase "Pink Slime"



Calculations include 24 all stories broadcast on CNN, CNNH, CSPAN, CW, CBS, Fox, FNC, NBC, ABC, PBS, and MSNBC for the months of March 7-September 15, 2012.

Figure 2. Frequency of Television Reports Including the Phrase "Pink Slime" by Television Station

after ABC's first story introducing *pink slime,* Joel L. Green, an analyst in agricultural policy documented the decline of LFTB. He noted that within a month of ABC's first report:

> USDA announced that, due to consumer demand, it would allow school districts that participate in the National School Lunch Program to choose whether or not to buy ground beef that includes LFTB for the next school year. (p. 6)

> Safeway, SuperValu, Food Lion, Kroger and other grocery retail chains announced they would no longer sell ground beef that includes LFTB. (p. 7)
> As a result of falling demand for LFGB, BPI suspended production at three of its four processing plants, laying off 650 employees. (p. 7)

Without question, the declining sales of LFTB occurring after the appearance of the pink slime exemplar threaten the survival of BPI and the LFTB industry. Next, we analyze BPI's response to the accusations initiated by ABC News.

Beef Products Incorporated's Rebuttal to ABC

As part of the company's response to the maelstrom initiated by ABC's coverage of LFTB, BPI launched a website that serves as a rebuttal to the criticism. BPI explained the site was created because, "Unfortunately, recent media reports and so-called 'reality' shows have raised concerns about the product without the benefit of facts from those that produce or use it." We chose to analyze this website because it provides a comprehensive summary of statements made by BPI throughout the most acute media coverage of the controversy. In addition, the website, entitled "The Facts on Lean Finely Textured Beef," allowed BPI to include pictures, tables, and links to other documents necessary for moving beyond the pallid description of information against which Zillmann (2009) and others caution. In the Web document, BPI makes three primary arguments: a) LFTB is beef, b) ammonia is a naturally occurring product that actually enhances the safety of ground beef, and c) LFTB represents responsible use of the food supply.

LFTB is Beef

BPI begins its defense by clarifying that its product is accurately known by the technical phrase "Lean Finely Textured Beef." At no point in the entire rebuttal of LFTB is the phrase "pink slime" mentioned. After clarifying the product's name, BPI argues that LFTB is ultimately "a key source of the lean meat used to make ground beef." The company explains that all ground beef is made by "combining lean beef trimmings with other beef trimmings and grinding them together to make different lean blends that consumers desire (example 90% lean / 10% fat)." BPI then explains the confusion related to LFTB stems from the use of long-standing technology that improves upon the effort to separate lean beef from fat by hand. BPI explains: "State of the art food processing equipment allowed the removal of the fat from the beef trimmings. The finished product from this process is known as Lean Finely Textured Beef or LFTB." The product is finely textured through a stage in the process that strains out "any connective tissue, cartilage, and other pieces that may incidentally accompany the trimmings." They liken the process of making LFTB to "one used to separate cream from milk and a variety of other everyday foods."

Having established that LFTB is nothing more than a processed form of ground beef, BPI counters the claims that the product is not inspected like other meat products and that it had previously been used only as an ingredient for animal food. BPI argues that "LFTB is 100% beef and all beef is strictly regulated and inspected by the U.S. Department of Agriculture (USDA)." The company explains further that, "Inspectors are present in plants where these products are made everyday to ensure they are produced in accordance with established regulations in a safe and wholesome manner." BPI then asserts that, "During the more than three decades BPI has been producing lean beef, they have had an unsurpassed food safety record." The company dismisses the claims that LFTB was previously fed only to animals as "absolutely false." They conclude this section by re-emphasizing the

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claim that "What the LFTB production process simply does is allow the removal of fat from beef trimmings, which was previously near impossible to accomplish through knife trimming by hand."

Ammonia is Safe

To answer claims that the use of ammonia makes LFTB dangerous to consumers, BPI explains, "Ammonia is naturally found in beef, other proteins, and virtually all foods." This claim is repeated on six occasions in the document. To support this assertion, BPI provides a picture of a cheeseburger with the amount of ammonia in each ingredient posted on the side of the graphic. The company also provides a list of 61 foods, many of them vegetables that naturally include ammonia.

BPI broaches the topic of intentionally adding ammonia to a product through claims that doing so actually heightens the safety of the product. The company states that, "In addition, as part of our commitment to provide the safest lean beef possible, research drove us to create the pH enhancement process, which relies upon slightly increasing the level of Ammonia already present in beef in order to elevate its pH to combat deadly pathogens such as *E coli* O157:H7." BPI then discusses how dangerous the E. coli pathogen is to "young children and elderly people." BPI concludes its discussion of ammonia by arguing that the use of ammonia is "nothing new." As support for their claim they cite a study completed in 1973 attesting to the presence of small amounts of ammonia in a variety of foods.

Responsible Use of the Food Supply

The final defense provided by BPI addresses the concern that LFTB is made by scouring bones to salvage small scraps of meat. The company poses the rhetorical question, "Is it really necessary to get every small bit of beef from a carcass?" They answer their own question by saying, "Necessary? No. Is it the right thing to do? Absolutely!" To justify their argument, they claim, first, that LFTB "makes it possible to have more of the leaner ground beef blends consumers desire at affordable prices." BPI's second justification is that eliminating LFTB would be "like throwing away 5,700 cattle a day." They claim further that such waste contributes to the strain on a worldwide food system that must feed a population that "is increasing by 220,000 people everyday."

BPI further asserted its responsible management practices by lauding the USDA's decision to allow retailers to include LFTB as an ingredient on the labels of the ground beef they sell. In doing so, BPI first reminds the reader that "Ground beef is a single ingredient product (beef) and LFTB is 100% beef; therefore it is not required to be listed separately on any label." The company then reassures consumers by explaining, "We believe USDA's decision to allow companies to voluntarily include information on their label regarding LFTB content will be an important first step in restoring consumer confidence in their ground beef."

Filing a Law Suit for Defamation of Character Against ABC

In September of 2012, BPI added to its risk communication defense of the company by filing a lawsuit against ABC News. The company is seeking $1.2 billion in damages (Lopez, 2012). In the lawsuit, BPI alleges that "coverage of the 'pink slime' controversy misled consumers into believing that the product was unsafe, even though it had been approved for human consumption by the U.S. Department of Agriculture" (Lopez, 2012, p. 2). When interviewed about the lawsuit, BPI's attorney, Dan Webb, argued that "BPI blames ABC for causing consumers to believe the product "is some type of unhealthy and repulsive liquid product that is not even meat" (Tomson, 2012, para. 3). Webb insisted LFTB is made completely of beef. In response to the lawsuit, ABC News Senior Vice President Jeffrey Schneider claimed: "The lawsuit is without merit. We will contest it vigorously" (Tom-

son, 2012, para. 3). As can be seen in Figure 1, the lawsuit created a second spike in the appearance of the phrase *pink slime* in television news.

Analysis

ABC's portray of LFTB as *pink slime* created an exemplar in television news that caused a crisis of public perception for BPI. The fact that no physical harm from the product was documented suggests the crisis was clearly based on the perceptions created by the *pink slime* exemplar. BPI continues to insist the product is both safe and comprised 100% of beef. From BPI's perspective, ABC News failed to meet the criteria established by Zillmann et al. (1996). Specifically, BPI claimed the ABC News story that framed LFTB as *pink slime* is an example of inappropriate exemplification that caused distortion in the minds of the public.

In contrast, ABC News insists LFTB is a filler tinged by ammonia that, prior to its reporting, has been added to ground beef without the public's knowledge. Moreover, the decision by the USDA to allow the use of LFTB was, according to ABC News, made under questionable circumstances. From this perspective, ABC News was using exemplification effectively and ethically to draw public attention to an overlooked health risk (Zillmann, 2006).

The Crisis Communication Challenges

The validity of LFTB as a health risk remains to be seen. At this point, there is no clear evidence that people who consume the product are at any greater risk than those who do not. Thus, BPI has not knowingly served a dangerous product to its customers. If LFTB had produced demonstrable harm to its consumers, BPI would be facing a tangible crisis with patterns of illnesses for which they would be held accountable. In this case, the crisis remains one of perception and warrants a crisis communication response. To that end, BPI faces two general crisis communication challenges:

Reframe the Product: BPI needs to reframe the product as safe and responsible by countering the claims established in the ABC News story.

Present their Rebuttal in a Compelling Manner: Because the ABC News story created an exemplar of the phrase *pink slime*, BPI needs to provide a compelling response in both form and content. This challenge accounts for the Zillmann et. al (1996) warning that pallid general information is likely to fail as a corrective measure for distorting exemplification.

In short, BPI needs to change perception by countering the claims made by ABC News and it needs to do so in a way that captures and holds the viewers' attention.

Reframing Claims made by ABC News

BPI systematically addresses each of the claims made by ABC News in the rebuttal they provide on their website. Initially, BPI seeks to reassert the product's name, Lean Finely Textured Ground Beef. The phrase *pink slime* is completely absent from BPI's rebuttal. Related is BPI's explanation that, at no point in the creation of LFTB, is any ingredient other than scraps of fat and muscle, introduced into the production process. Hence, they maintain their argument that LFTB is composed completely of beef. In doing so, they make no mention of the ABC News assertion that the USDA's decision to allow LFTB in ground beef was made under suspicious circumstances by then undersecretary JoAnn Smith.

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Although BPI's argument is accurate, the visual representation of LFTB allows ABC News and others to create some doubt as to the integrity of product. The fact that the meat scraps are converted into a liquid state that must be compressed and frozen to return to a solid form creates a visual contrast to BPI's description of LFTB as beef. Moreover, the fact that, at least for a period of time during processing, the meat is in a pink liquid form gives some credence to the vivid and repulsive phrase *pink slime*.

Another troubling aspect for consumers was the revelation by ABC News that LFTB is exposed to an ammonia gas during processing. BPI provides two arguments related to ammonia in its rebuttal. First, BPI contends that ammonia is naturally occurring in beef and other commonly consumed products. Second, the company insists that the small dose of ammonia used in processing is essential to avoiding such dreaded bacteria as Salmonella and E. coli O157: H7. Both arguments provided by BPI are valid. Still, the fact that ammonia is intentionally applied to LFTB during processing creates two lingering questions that must also be addressed. If, as argued above, LFTB is simply a different form of beef, why is ammonia necessary for its creation and unnecessary for other forms of beef? BPI argues accurately that the levels of ammonia used in the processing of LFTB are well beneath any dangerous threshold. This argument, however, is potentially weakened by the fact that the public has a difficult time discerning between safe and unsafe levels of chemical exposure. Krause, Malmfors and Slovic (2000) explain that this difficulty often reaches the point where the mere presence of a chemical is seen as disconcerting. Thus, BPI faces an uphill battle in convincing some consumers that the use of ammonia in meat production is safe.

In response to criticism that LFTB is made with meat salvaged in the final stage of butchering beef, BPI claims they are engaging in a responsible use of the food supply. They argue that a failure to complete this final stage of meat production would constitute an indefensible waste in a world with a growing population and increasing demands on the food supply. There is no clear contrast to this argument in the pink slime exemplar. The beef used in the production of LFTB is portrayed as low grade, but there is no counter in the ABC News story to claims that failing to process this product is a waste of consumable food.

Presenting the Rebuttal in a Compelling Manner

Zillmann et al. (1996) caution that attempts to counter exemplars with pallid information are likely to fail, even if the information is logical, accurate, and well supported. The affect created by the exemplar is often simply too memorable and readily retrieved cognitively to be replaced by a plainly stated, accurate argument. BPI moves beyond a pallid presentation of their rebuttal in two ways. First, the company makes use of evocative pictures and graphs. Second BPI introduces a comparison, analogy, and contextual clarification into its discussion that create vivid mental pictures. We discuss these features in the following paragraphs.

BPI provides visual support for its claim that ammonia is safe. Their rebuttal features an appetizing picture of a cheeseburger with a listing of how much naturally occurring ammonia is in each ingredient. The picture is appealing and the numbers noted in the graphic are surprising. Second, BPI provides a graph listing dozens of common foods and including their naturally occurring levels of ammonia. The mathematical calculations of ammonia levels for comparison to the processing of LFTB are somewhat difficult to comprehend. The fact that so many foods are listed as having a notable degree of naturally occurring ammonia, however, may be potentially compelling for viewers.

In addition to the visual elements in BPI's rebuttal, the company creates several vivid mental pictures through language. For example, BPI makes the analogy that eliminating LFTB production

is akin to throwing away 5,700 full beef carcasses per day. They then make the inferential leap to conclude that doing so will hamper the world's efforts to feed its growing population. BPI provides another vivid mental picture by comparing the "state of the art technology" used to make LFTB to the alternative — having workers with knives painstakingly trim bits of muscle from scraps of fat. In this manner, BPI creates a mental picture of the LFTB processing equipment as an achievement in modern engineering. A third example of potentially evocative language establishes a historical context for LFTB. BPI mentions repeatedly that the process for creating LFTB has a 30-year history with a clean record of having caused no health problems.

Finally, BPI's decision to sue ABC News for defamation is itself a compelling act. One could infer from BPI's decision to engage in a legal battle that the company has reason to believe that ABC News knowingly presented false or distorted information. The fact that BPI would take this somewhat extreme measure could serve as an evocative and memorable act that implies innocence.

Discussion and Conclusions

In general, BPI's rebuttal is well argued and the language strategies and visual representations are compelling. Still, the pink slime exemplar poses a challenge that is difficult to overcome. In particular, the transition of the meat product to a liquid state and the use of ammonia are facts that BPI cannot explain away. Certainly, the decisions by ABC News to label the product pink slime and to imply that the use of ammonia is dangerous are extreme and perhaps unjustified. Nevertheless, these elements of the story are difficult to refute. Had these elements of the story been inaccurate or completely false, BPI would face less difficulty in reframing them. At best, then, one can argue that BPI has been only partially successful in its efforts to reframe the issue. Accordingly, we argue that, when an organization's standard operating procedures are portrayed negatively as exemplars, the potential for reframing them or perhaps even changing them becomes more difficult.

As mentioned earlier, the topic of ammonia creates an exceptional challenge. The general public comprehends that ammonia is a toxic substance. Stigmatized perceptions such as this have the potential to quickly push a risk dialogue, such as determining the thresholds at which a chemical is safe, into a perceptual crisis. In this case, the fact that ammonia was a central element in the media coverage of LFTB was particularly alarming for consumers. The fact that chemicals such as ammonia are stigmatized makes them more prone to exemplification and more difficult to reframe with a logical explanation of thresholds.

The LFTB case also reveals two insights involving appeals to neutral parties that expand upon the recommendations of Zillmann et al. (1996). First, a component of BPI's rebuttal included the mention of corrective action taken by a neutral party. BPI emphasized the fact that the labeling issue had, to some extent, been resolved by the USDA's decision to allow companies to voluntarily list LFTB on their labels. As mentioned above, the nature of the product meant that BPI could not change or correct the means by which LFTB was made. Similarly, the organization could not demand that those who make use of the filler in their ground beef label the final product as such. As a neutral party, however, the USDA gave BPI an opportunity to emphasize that one of the key complaints registered by ABC News had been largely resolved. Hence, neutral parties have the potential to bring some degree of added credibility to organizations responding to crises of perceptions caused by exemplars.

BPI's decision to file a defamation lawsuit against ABC News constitutes a second appeal to a neutral party. If the lawsuit progresses through the stages of litigation, BPI will be able to move the case from metaphorically being tried in the court of public opinion to literally being tried in the

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court of law. The legal proceedings give BPI the opportunity to publicly defend its practices while questioning the veracity of the claims made by ABC News. Naturally, this tactic could work against BPI if the lawsuit is rejected or if a favorable decision in the case is rendered. Still, the strategy of moving a case involving an exemplar to a legal setting where it can be judged by a neutral party has the potential to boost an organization's credibility.

The LFTB case also extends exemplification theory by revealing the potential for unanticipated consequences in the use of exemplars that draw attention to health issues. Zillmann (2009) argues that exemplars are useful in calling attention to health hazards previously unrecognized by the public. Ironically, the LFTB case suggests that exemplars can also function in the opposite direction. When LFTB was withdrawn from many supermarket shelves, the cost of lean ground beef increased as did sales of ground beef with a higher fat content. In addition, the USDA forecast increased beef imports from countries such as Australia and New Zealand (Greene, 2012). Consequently, one could argue that the attempt by ABC News to use an exemplar to raise awareness of a potentially dangerous practice actually resulted in poorer health choices for consumers and increased competition for American ranchers and meat processors.

This analysis is limited to the inception of an exemplar and the initial rebuttal provided by the organization. Future research on organizational crises of perception should focus on how such exemplars gather momentum and spread among various media forms. Also, exemplars in settings other than the food or health industry should be analyzed. For example, are there characteristics in exemplars that cause crises of perception in the transportation or tourist industries that differ from those described and analyzed here? This study has also shown that exemplars have the potential to harm consumers rather than protect them. Further research analyzing this dangerous potential is also warranted.

Exemplars can dramatically diminish an organization's credibility. The crises in perception that exemplars create can literally devastate an organization. For this reason, media sources should, as Zillmann et al. (1996) suggest, carefully consider the potential ramifications of the decisions they make in reporting a controversial story. In the LFTB case, the repeated use of the term *pink slime* has created a complex series of outcomes that few if any likely anticipated.

About the Authors

Deborah D. Sellnow is a doctoral student in the Department of Communication at Wayne State University. Timothy L. Sellnow is a professor in the Risk Sciences Division of the College of Communication and Information at the University of Kentucky.

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Research

A Case Study and Framing Analysis of the 2008 Salmonella Outbreak

Erica Irlbeck, Cindy Akers, Matt Baker, Scott Burris, and Mindy Brashears

Abstract

During the summer of 2008, a nationwide Salmonella outbreak sickened more than 1,400 people; the initial cause was thought to be tomatoes, but after further investigation, jalapeno and Serrano peppers from Mexico were the cause. The purpose of this study was to examine television news coverage of the 2008 Salmonella outbreak in jalapenos with case study methodology, through the scope of framing theory, to gain an understanding of how reporters' ideologies, attitudes, corporate pressures, and interview sources influenced the frames that were reported on national television news networks. The reporters revealed they would like to see changes within the Food and Drug Administration's (FDA) food investigations and communications system, they had confidence in the U.S. food supply, and corporate policy did not influence news coverage. Reporters used the agency that issued the recall for an interview source; however, they also used consumer watchdog groups, industry organizations, and university researchers. This study concluded that in some instances, television news frames are influenced by the reporters' attitudes and ideologies, and in other instances, they are not. Agricultural communicators should be proactive with the news media — ensure they know about the organization, periodically offer information, and be willing to be interviewed — so that if a crisis does occur, it is much easier to get a message out.

Key Words

Salmonella recall, television news, framing theory, case study, food safety

Introduction

In June 2008, the U.S. Food and Drug Administration (FDA) began warning consumers about red plum, red Roma, and round red tomatoes due to possible *Salmonella* contamination. After a month of investigation, the FDA eventually determined jalapeno and Serrano peppers grown in Mexico caused the outbreak. In the end, 1,442 Americans reported an illness and 286 were hospitalized due to the bacteria, and the outbreak may have contributed to two deaths (Centers for Disease Control [CDC], 2008).

The U.S. tomato industry suffered huge financial losses from the outbreak, even though it was eventually determined that tomatoes were not the cause. Many tomato producers were forced to abandon their crops, and the U.S. tomato industry reported losses of more than $250 million (Alonso-Zaldivar, 2008).

Food-borne illness outbreaks are typically heavily covered by the news media, as evidenced by coverage of the *E. coli* spinach outbreak in 2006, *Salmonella* outbreaks in peanut butter and eggs in 2009 and 2010, respectively, *Listeria* in cantaloupes in 2011, and lean finely textured beef in 2012 (Irlbeck, Akers, & Palmer, 2010; Waggoner & Irlbeck; 2011; Whaley & Tucker, 2004). Understand-

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ing how food safety crises have been covered in the news can help agricultural communicators learn how to develop messages and risk and crisis communications strategies that better educate and inform the general public.

Framing Theory

The model used for this research was proposed by Scheufele (1999) (see Figure 1) and was used to analyze how organizational pressures, ideologies, personal attitudes, and other elites contribute to the frames that are built, or reported, by the news media. Those inputs are processed by the reporter and the outcome is the story aired in the newscast. The bottom half of the figure deals with audience perceptions of a story. When a story is reported, the audience processes the information through the lens of their own attitudes and ideologies. The audience then attributes responsibility and may change attitudes or behavior based on the information (Scheufele, 1999).

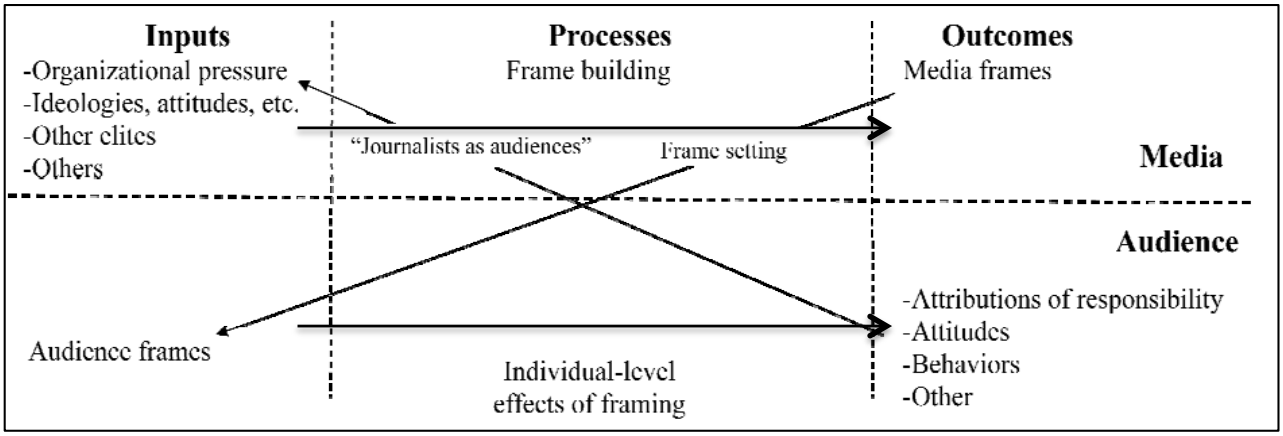

Figure 1. Model of Framing Effects (Scheufele, 1999)

Framing is the way a journalist makes sense of information, which then becomes a central organization point of the story (Gamson & Modigliani, 1987; Hallahan, 1999). Miller (2002) explained framing as:

> A process through which the media emphasize some aspects of reality and downplay other aspects. Framing can be accomplished through the consideration of particular subtopics, size and placement of a news item, narrative form and tone of the presentation, and particular details included in the media coverage. (p. 262)

Research suggests attitudes directly influence a story (Scheufele, 1999), and reporters always have thoughts, feelings, and interests toward certain stories (Newcomb & Alley, 1983). Contradictory research argues that reporters may not have time to allow personal opinions to influence their reporting (Weaver & Wilhoit, 1991). In addition, news directors, station management, and station policy can influence the writer to write a story emphasizing a certain angle (Neuman, Just, & Crigler, 1992).

Television News Framing

Previous research on the television news coverage of the 2008 *Salmonella* outbreak found that national television news networks presented anti-government, anti-Mexican produce imports frames, and pro-tomato grower frames (Irlbeck & Akers, 2010). The research found most of the stories either provided general information about the outbreak or warned the public about a potential threat.

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Most of the news coverage was based on the facts available at the time. The networks commonly used interview sources from the FDA followed by tomato growers, consumers, politicians, the Center for Science in the Public Interest, and the Center for Food Safety (Irlbeck & Akers, 2010).

Data on television reporters' framing about an agricultural or food safety story is very limited. However, there are several studies involving newspapers that found agriculture to be portrayed in a negative light, particularly during the bovine spongiform encephalopathy in 2003 (Ruth, Eubanks, & Telg, 2005; Ashlock, Cartmell, & Kelemen, 2007; and King, Cartmell, & Sitton, 2007).

A Rutgers University study found the public was highly aware of the 2008 *Salmonella* outbreak but was often confused about the specific action they were supposed to take to prevent the illness (Cuite, Schefske, Randolf, Hooker, Nucci, & Hallman, 2009). The study found consumers paid attention to the message the first time they heard it, but their attention drifted from the subject afterward. In a news release, one of the researchers noted: "as the lists of foods being recalled are updated day by day, I think it's unlikely that consumers would go back and keep checking them. A very small percentage actually determine if a product they've purchased is part of the recall" (Filipic, 2009, para. 9).

In the event of food safety stories, research found that negative food safety issues were highlighted twice as often as positive stories, and environmental or health activists were quoted five times as often as food scientists (Anderson, 2000). In the event of the *Salmonella* outbreak in peanut products, no agricultural producers and only one food safety expert were interviewed for network television coverage of the story (Irlbeck et al., 2010). Conclusions from previous research recommends that public relations practitioners in the agriculture and food industries should utilize the news media when there is *not* a crisis to build relationships with reporters, editors, and news directors (Ten Eyck, 2000; Irlbeck et al., 2010). In addition, the news media can help educate the public about safe food handling practices, which may help reduce the number of food-borne illnesses. However, few reporters have science training, and few scientists have training in communicating with the news media in simple and clear language, thus creating a problem when trying to tell food safety stories (Anderson, 2000).

Framing and Public Relations

"Journalists are drawn to frames that they perceive to be salient, controversial, and timely" (Darmon, Fitzpatrick, & Bronstein, 2008, p. 378). Therefore, the public relations practitioner has the challenge of presenting frames that are attractive to journalists. Hallahan (1999) argued that framing is "essential to public relations" (p. 224). As public relations practitioners work for the best outcome for the client, specific talking points should be developed to present to the news media to produce a more favorable outcome. Darmon et al. (2008) noted that Kraft Foods saw success in getting coverage for their frames by presenting frames that could be worked into related stories.

Interest groups, social institutions, and activists are experts at getting journalists to present their frame (Baran & Davis, 2009). Reber and Berger (2005) found that the Sierra Club constructs issue frames "to attempt to influence the perceptions, attitudes, and behaviors of internal and external audiences" (p. 191).

Purpose and Objectives

The purpose of this research was to identify how journalists' personal ideologies, attitudes, and organizational pressures build frames that are presented in television news. This research was guided by the following questions:

1. What were the inputs (organizational pressures, individual attitudes, and ideologies) that influenced the way television media reported food safety information based on the 2008 *Salmonella* outbreak in jalapenos?
2. When covering the 2008 *Salmonella* outbreak, were reporters inclined to use certain sources, and if so, what were their opinions about those sources?

Methodology

The methodology for this study was a qualitative case study. A case is a single entity, or bounded system, selected because it is intrinsically interesting (Smith, 1978). The bounded system for this study was the journalists and their comments about coverage of and sources used for the 2008 *Salmonella* outbreak. Through interviews, television reporters' ideologies, attitudes, corporate policy, and opinions of their interview sources were examined.

Creswell's (2007) model for data collection activities was used for this study. Because television is an easily followed and popular medium for food safety information, (Fleming, Thorson, & Zhang, 2006), television reporters were chosen as the units of analysis for this study. The researcher obtained the names of the reporters who covered the 2008 *Salmonella* outbreak from news transcripts, which were available on Lexis Nexis through the university library. At the time of the study, ABC, CBS, CNN, and NBC were the only networks' transcripts available. All reporters were contacted, but the reporters from the major three networks were the most willing to be interviewed. The researchers assumed the reporters interviewed were honest and did not withhold information.

The television news business is a relatively small business, and the researcher was once a television reporter; therefore, the researcher emailed former co-workers to obtain contact information for the network reporters who covered the *Salmonella* outbreak. According to Hoffman (1980), utilizing social ties substantially yields more informative and useful data. Within three days, email addresses were obtained for almost every reporter who covered the outbreak. The majority of the network reporters who covered the story were located in Washington, DC. The reporters were emailed asking them to participate. However, after two weeks of initial and follow-up emails, only five reporters agreed to participate. Although Merriam (1995) argued that small sample sizes, even as small as one participant, are acceptable in qualitative research, five interviews were not enough to justify a trip to Washington, DC.

For situations with a smaller-than-desired sample size, Creswell (2007) recommended discriminant sampling — sampling that could be used when researchers need additional information but the optimal participants are not available. Therefore, individuals who are *similar* to the target population can be utilized as long as the theory being studied holds true for the additional participants. The researcher utilized contacts in one large East Coast city and one large Texas city to locate television journalists who covered the *Salmonella* story. Using discriminant sampling, seven more journalists agreed to be interviewed, bringing the sample size to 12. The researcher had no prior contact with or knowledge of these participants. Both reporters and segment producers were interviewed. In most cases at large television stations, segment or beat producers (such as health or consumer) are just as familiar as the reporters with the story. Stake (2006) stated that an adequate sample for a case study consists of four to 15 participants.

The interviews were conducted in the participants' place of business in April 2009 (Berg, 2009) with the exception of one network reporter who was unavailable for an in-person interview; therefore, she was interviewed via telephone. The participants signed a university-approved consent form before answering any questions, and participants understood they would be given a pseudonym to

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protect their anonymity. The researcher used a semi-standardized interview guide, meaning the questions were scripted, but wording was flexible, and the researcher could alter questions to be more suitable to the participant (Berg, 2009; Lindlof & Taylor, 2002). Each interview lasted approximately 30 minutes and addressed the reporters' experience with food-borne illness, corporate policy on reporting on food safety issues, and preferred food safety information sources. All interviews were digitally recorded then transcribed. Each interview had its own Microsoft Word file, saved by the participant's pseudonym.

As interview transcripts were analyzed, data were reduced and put into categories using open and axial coding. NVivo 8.0 was utilized to organize and more efficiently code the data. The initial open coding process was to organize the data. This created concepts and themes to make meaning from the wealth of data (Lindlof & Taylor, 2002). During the open coding process, the researcher wrote self-reflexive memos to enrich the analysis process. After the first phase of coding, there were 19 thematic categories, which were later organized into four broad categories or themes. The researcher then used axial coding to further sort the data into sub-categories.

Trustworthiness

Trustworthiness was established through credibility, transferability, dependability, and confirmability of the researcher, methods, and findings (Lincoln & Guba, 1985). Credibility can be accomplished through triangulation. In this study, triangulation was achieved through different participants providing similar information to verify the findings (Lincoln & Guba, 1985). Comparing the interview transcripts among the various participants verified the findings, and researcher bias was also addressed to also achieve credibility. Rich descriptions of the findings were provided to achieve transferability (Bloomberg & Volpe, 2008). Dependability and confirmability were achieved with an audit trail of interview recordings and transcriptions, NVivo files, and news transcripts. Dependability was also achieved through protecting participants' anonymity and assigning pseudonyms when reporting findings.

Researcher Bias

"The investigator as a human instrument is limited by being human — that is, mistakes are made, opportunities are missed, personal biases interfere. Human instruments are as fallible as any other research instrument" (Merriam, 1998, p. 20). As stated earlier, the researcher was a television reporter and somewhat identified with the reporters who were interviewed.

Findings

Each participant had his or her own perceptions of the truth. There were 12 participants: four network reporters and one producer in Washington; three consumer and/or health producers at an East Coast television station; and four reporters at an East Coast or Texas television station. Three of the network reporters were interviewed together in a group setting. The interviews were conducted shortly after a *Salmonella* outbreak in peanut butter, which influenced some of the responses.

Findings in Relation to Research Question 1

Research Question 1 asked "What were the inputs that influenced the way television media reported food safety information based on the 2008 *Salmonella* outbreak in tomatoes and jalapenos?" Four major themes emerged: (1) news value, (2) opinions about the farmers involved in this story, (3) opinions about the government/FDA, and (4) opinions about the U.S. food supply.

News value

Based on the interviews, covering a food-borne illness outbreak depends on a number of factors before the inputs that influence a frame are ever considered. Popularity of the food being recalled, news of the day, management's definitions of news, frequency of reporting the story, and audience opinions are all considered before a story is covered.

LUCY (television network reporter): *It depends on how popular the food is … peanut butter is a popular food. It depends on what other news is going on that day. I mean, we actually fought to get the peanut butter story on for a long time before they finally jumped on it … They [news management] were not really that interested until it gathered some steam.*

Often, a news organization may not report on a story repeatedly because the audience may tune out the information.

IZZY (network reporter): *There's a weariness factor, too. It's sort of like the Iraq war, you know, even though things continue to go on there, after a while, the news divisions get weary because the audience gets weary, and they have a hard time distinguishing, "Gee, isn't this more of the same?" kind of thing. So we really do have to think hard and discipline ourselves to do the homework, to realize, "Wait a minute, there has been a turning point, something important has changed, or has happened, we need to report on this again."*

Opinions about the farmers involved in this story

During the interviews, a common ideology of support for the tomato farmers emerged. Not one reporter thought the recall was due to the farmers, and most felt sympathy toward the farmers affected.

DERRICK (reporter in Texas): *I grew up on a farm, and I understand how things are raised, and from that part of it, the production end of it, to selling things and to market it. I know most people are doing it right. I don't think anybody wants to make the public at large sick because of the food they eat.*

SALLY (network reporter): *It just devastated the industry, and it ended up not even being tomatoes, it was jalapenos from another country. And that's one of the challenges in covering this and dealing with this; it just completely devastated the poor tomato farmers out there, and it wasn't even their fault.*

IZZY (network reporter): *Of course we have to reach out to industry … but particularly in the case of the tomatoes, they had a lot to say and they turned out to be right. How 'bout that? You know, it's easy to be skeptical of the industry that's under attack, because they have money to lose, but there was an example where gee … they were right.*

CHARLIE (network reporter): *Florida was really ticked 'cause they had just started to harvest, and their fields had been checked … I mean they were really ticked that FDA hadn't cleared them because there was* ***no way*** *(it could be their tomatoes). Their tomatoes were already in the system, and people were getting sick back in April … I mean, there were people screaming at them from Florida, because their crops are sitting in the warehouse, and if they don't get them moving, that's a whole season of work that's lost.*

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Opinions about the government/FDA

A common opinion of the participants was that the FDA needed change. Some of the reporters acknowledged that the FDA does what it can with the resources available. However, the consensus of the participants was that the FDA needed to improve its communication strategy and operational structure, including, but not limited to, more funding and more inspectors.

> IZZY (network reporter): *I recognize that the FDA's job, this sort of treasure hunt, slash episode of CSI that they have to do when these food outbreaks happen is really difficult. And (they are) relying on the faulty memory of human beings to do a lot of that tracking. So on that, I don't really fault them on that part, because I think that given the systems that are in place now, they do as well as they can … How they communicate, though, to the media and to the public, is flawed. And there was a very odd thing that they were doing where they were trying to make it clear that some tomatoes were fine and others were not, in order to not decimate the entire industry. They realize that they did sort of a bumbling job of it and so it wasn't effective, and it decimated the industry regardless.*

Opinions about the U.S. food supply

The researcher found another theme that could contribute to the reporters' attitudes about foodborne illness outbreaks. Some of the reporters were concerned that major food recalls seemed to occur every year. Reporters mentioned pet food, spinach, tomatoes, peanut butter, pistachios, and the Jack In The Box recalls.

> LUCY (network reporter): *It's the same story year, after year, after year, with a little bit of a difference, but they just can't seem to get it right and fix the problem. And I felt that way with the pistachios, I'm like "come on people, this is getting ridiculous!" I guess, given all the food that is produced, there isn't more foodborne illness, perhaps. But, you know, they gotta get it right, especially now, because food comes from so many places.*

> CHARLIE (network reporter): *I don't think the story is going away anytime soon … We'll always have this (bacteria) in some of our food. It's just a question of how much and how bad it is. I think we learn a little bit. I think Jack In the Box, in my knowledge, that's the first time I learned E. coli can be on the meat, but once you grind it, it's in the entire hamburger, versus a steak. If it had E. coli on it, you grill it, you kill it. So we learned something then, and it generally changed the way hamburgers are cooked in this country. So there are these marks where we learn, and we do things differently, but I don't think that it's ever going away.*

Some of the reporters expressed emotions about food safety; however, it was in relation to the peanut butter recall that occurred a few months before the reporters were interviewed for this study, rather than the tomato recall.

> CHARLIE (network reporter): Y*ou know, the one that makes me mad…these (agricultural) producers try, they really try. Like the peanut one — **that** makes me angry. Because this guy (the Georgia peanut butter plant owner) knew that he had problems with his plant … if there's any emotion, it's the fact that … you know, I do my job and it's important that I get it right. If you're producing food for somebody, it's important that you get it right, and anybody that just knows that they're not doing it right, **that** makes me angry.*

Previous research (Irlbeck & Akers, 2010) found that CNN was very critical of food grown in Mexico. The researcher asked the participants if they had ever contracted a food-borne illness, either in the U.S. or abroad, to determine if a bad experience contributed to the reporting of the story. Two of the participants stated they received a food-borne illness from food eaten in Mexico. George, a former network reporter who is now in Texas, frequently traveled internationally. He stated that he became violently ill after eating at a five-star hotel in Mexico City. Charlie also had a severe bout of food-borne illness in Mexico. Aside from a few mentions of seafood, sprouts, and certain uncooked foods, the reporters were not worried about eating food in the United States, and they mostly felt the U.S. food supply was safe.

RESEARCHER: *Are there any foods that you avoid?*
CHARLIE: *Here in the U.S.? Yeah, there's nothing I won't eat.*

DERRICK (reporter in Texas): *Think of all the things we eat on a regular basis, the eggs, the milk the cheese, beef, chicken, poultry … bread. All this stuff that we eat on a daily basis, that never, ever, ever seems to have any kinds of problems, and when it does, it's usually very limited … There's problems throughout the whole system, but those are few and far between, so I don't look at my food and say "Hey is this going to kill me?" I don't live that way. I think our food supply is generally safe.*

Findings in Relation to Research Question 2

Research Question 2 asked "when covering the 2008 *Salmonella* outbreak, were reporters inclined to use certain sources, and if so, what were their opinions about those sources?" The FDA was a highly used source in the 2008 *Salmonella* outbreak, yet when asked where they would search for information during a food recall, only Sally, Izzy, and Lucy specifically mentioned the FDA; the other participants talked about other sources.

IZZY: *I guess the first thing would be just to get the nuts and bolts of what the recall is and that would be the FDA website and then from there, we try to look at some of the groups that are critical of FDA to get the back story.*

Many of the participants talked about using the Center for Science in the Public Interest (CSPI), a consumer watchdog group.

LUCY: *They're knowledgeable, they're quick, they're down the street, they'll come here, and…I would say CSPI is probably our first call, usually on these stories.*

IZZY: *The only caveat is again, Center for Science in the Public interest is just an easy resource because we know all the people there, we deal with them all the time, and they're always on top of these issues. So they're somebody we often interview, but we try actually not to interview the same players for every story because that's not great reporting.*

Several reporters stated they like to interview a representative of the industry under fire to get both sides of the story. They also liked using university researchers.

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SALLY: *A lot of times, people say, "the industry," like they're kind of like the bad guy, but they can actually be very helpful, and particularly because the government relies so heavily on the industry to police itself. If you go to (certain industry's websites) you can find out where are the growers, where are the processors. So those websites, and those organizations, I actually find to be very helpful.*

IZZY: *I prefer academics, you know, if the government isn't doing a great job … we try to start with the government because they're the ones issuing the recall, and then I prefer for context from academic types, because I think they're just in it for knowledge and truth.*

Conclusions and Discussion

According to Scheufele (1999), inputs combined with sources build the frames that are presented in the news. In analyzing if inputs influenced the way reporters told the 2008 *Salmonella* story, four themes emerged: (1) determining news value, (2) opinions about farmers, (3) opinions about the FDA/government, and (4) opinions about the safety of the U.S. food supply.

According to Scheufele's (1999) model, organizational pressures can influence the frame of the story, but it can also influence the news that gets covered each day. The news organization's management and opinions about the audience and the situation can lead a writer to give a story a certain spin (Neuman, Just, & Crigler, 1992). However, according to Lucy, corporate pressures or plans do not usually decide which stories get covered and which do not. Organizational pressure did not appear to have an influence on the decision to cover the 2008 *Salmonella* outbreak, which was contradictory to that point in Scheufele's model.

The participants in this study did not appear to have negative attitudes toward the farmers involved in this story; rather, it seemed as if the reporters were siding with the producers. These findings contradict previous literature about the news media being negative toward agriculture (Ruth et al., 2005; Ashlock et al., 2007; King et al., 2007).

Some of the participants acknowledged that the FDA had a lofty task of regulating both prescription drugs and food products; even so, some participants did not approve of the way the FDA communicated messages about the 2008 *Salmonella* outbreak. A study from Rutgers University corroborated many of the reporters' statements. The study found that a small percentage of consumers checked their pantry products to determine if they had been recalled, and many consumers were confused about which products to throw away (Cuite et al., 2009). Consumers were instructed to avoid red plum, red Roma, and round red tomatoes, yet most tomatoes are round and red, which created more confusion with consumers (Palmer, 2010).

Irlbeck and Akers (2010) found that CNN openly questioned the quality and safety of food coming from Mexico during a *Salmonella* outbreak. This made the researcher wonder if the CNN news anchors had a negative attitude about Mexican imports due to an illness contracted there; therefore, the researcher asked each participant if they ever had food poisoning. George and Charlie both said they had become ill after eating food in Mexico; however, Irlbeck and Akers (2010) claimed that ABC, CBS, and NBC did not report against Mexican food imports, so this bad experience with food in Mexico likely did not influence frames.

The FDA was the most frequently used television news source during the 2008 *Salmonella* outbreak (Irlbeck & Akers, 2010). Consumers and tomato farmers were interviewed second and third most often, respectively. The Center for Food Safety (CFS) and the Center for Science in the Public Interest (CSPI), both non-profit public interest advocacy groups, were interviewed frequently. In previous food recall stories, the groups appeared to be working against certain agricultural groups;

however, Irlbeck and Akers (2010) found the two groups to be supportive of the tomato farmers.

Anderson (2000) found that health activists were quoted in the media five times as often as food scientists. Using activist groups as sources can give the group momentum to "develop strategies to gain the media limelight around food safety issues for the purpose of gaining public support for their continued existence" (Eyck, 2000, p. 45). News networks like to use interview sources that are predictable, reliable, and good on camera (Cooper & Stoley, 1990).

Getting articulate, qualified sources to agree to an on-camera interview can be difficult for television reporters. If knowledgeable, dependable sources are available, they are asked to be interviewed frequently. Shoemaker (1984) argued that interest groups are creative at gaining news media attention to promote their stand on an issue. Izzy and Sally both stated that they like to use a variety of sources for interviews, and when possible, they prefer university experts because they are usually unbiased.

Reporters have opinions and feelings toward issues just like everyone else (Hallahan, 1999). Although reporters have an obligation to remain objective in reporting and report both sides of the story, sometimes their personal opinions and ideologies are injected into a news script and they may not realize it. News frames are acceptable and expected — as long as they are fair and objective.

Scheufele's (1999) model applies to the way news was covered for the 2008 *Salmonella* outbreak in some ways, and in other ways it does not. The model indicates that organizational pressures can influence news frames; however, organizational pressures had very little to do with covering the *Salmonella* story. Scheufele's (1999) model also indicated that attitudes and ideologies influence frames. For example, some of the reporters were critical of the FDA's communication during the recall, and as Irlbeck and Akers (2010) found, these attitudes were somewhat evident in the reporting. George and Charlie had previous experiences that might influence them to report negatively on food grown in Mexico, but that was not injected into their reporting.

The participants in this study were open-minded to using agricultural producers and university scientists as sources, but some were unsure where to find them. In addition, they are on a very tight deadline, so they often look for sources that they know are articulate, knowledgeable, available, and nearby.

For practitioners, the researcher, as well as previous literature (Ten Eyck, 2000), suggest that practitioners and their subject experts make proactive contact with all types of journalists to pitch story ideas. To be proactive, it is important for communicators to be diligent and make contacts with news media. Sally provided an example.

> SALLY: *It would be very helpful … if someone contacted me and said "Hi, I'm the media relations person for the agricultural department at (a university), we've got these experts." Or email me "We've got these experts who are available on stories that are often in the news. We've got a studio here…we can get them in front of a camera and do interviews with you by satellite." Extremely helpful, because we're based in DC, and all news does not happen in DC, particularly when it comes to food safety.*

Center for Science in the Public Interest was mentioned by several reporters as a frequently used source. Several participants stated they were partial to CSPI because the organization provides great information and is usually available for interviews. This is a good example — follow CSPI's lead and be proactive with the television media. Provide information, even when there is not crisis; ensure the reporters and news managers know about you and your organization. If there is a crisis, contact the

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reporters and offer information or interview subjects. Research has indicated that both Kraft Foods (Darmon et al., 2008) and the Sierra Club (Reber & Berger, 2005) were proactive in promoting their message frames; the same can be accomplished through communication with news media regarding other subject matters. Knowing reporters can be very helpful when an organization needs to get a message out during a crisis.

Future research opportunities on the topic of food safety through the lens of framing theory are plentiful. Current topics include the recent lean finely textured beef image crisis and listeria in cantaloupe. Looking beyond food safety, however, endless agricultural and environmental news story frames can be analyzed.

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